Voluntary Cleanup Program Final Report

Former Allyn's Cleaning & Dyeing aka Arcoa Building
1006 SE Grand Avenue
Portland, Oregon 97203

ECSI #6199

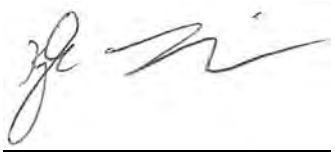
April 28, 2023

Prepared For:

Arcoa Partners LLC
2222 NE Oregon Street STE 201
Portland, Oregon 97232

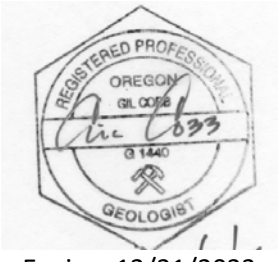
Prepared By:

Point Source Solutions, LLC
5317 NE St. Johns Road, Suite D
Vancouver, Washington 98661



Prepared by:
Kyle Fisher
Project Manager

Reviewed by:
Gil Cobb
Registered Geologist (Oregon #G1440)



Expires 12/31/2023

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503.236.5885

EXECUTIVE SUMMARY

This report documents all site characterization and residual management activities undertaken by Point Source Solutions, LLC on behalf of Arcoa Partners LLC for the purpose of achieving regulatory closure with respect to ECSI File No. 6199, identified as "Former Allyn's Cleaning & Dyeing" (Site) now known as the Arcoa Building.

The Site, addressed as 1006 SE Grand Avenue, is owned by Arcoa Partners LLC.

The Site includes Multnomah County Tax Lot 1S1E02BC1300 consisting of 0.44 acres. The Site is zoned EX - Central Employment by the City of Portland.

The Site occupies an area that is bound to the north by SE Yamhill beyond which is a mixed-use, urban residential and commercial structure; to the east by SE 6th Avenue, beyond which is a commercial warehouse; to the south by a 7-Eleven convenience store to the west and Japanese Auto Repair to the east; and to the west by SE Grand Avenue beyond which is commercial retail.

The Site is identified on **Figure 1** (Site Location Map), **Figure 2** (Topographic Map), and **Figure 3** (Site Plan) attached to this report.

The Site was occupied by Allyn's Cleaning and Dyeing from 1935 to 1960. Sanborn Fire Insurance Maps dated 1924 and 1950 indicate that the dry-cleaning room was located near the southeast corner of the current Site main building. Based on the Sanborn Maps, the dry-cleaning area was replaced by the current drive and parking lot by 1969. Dry cleaners are known to use hazardous solvents in the cleaning process which often are released to the subsurface environment under normal operating conditions.

In 2013, Chugwater LLC (CW) performed an Environmental Subsurface Investigation to investigate Recognized Environmental Conditions (RECs) identified in a Phase I Environmental Site Assessment of the Site. During this assessment, Stoddard Solvent and Volatile Organic Compounds (VOCs) believed to be associated with the past use of dry-cleaning chemicals on the Site were detected in soil, groundwater, soil-vapor, and indoor air.

A Voluntary Cleanup Program (VCP)/Independent Cleanup Pathway (ICP) Intent to Participate Form was filed by Point Source for 1024 SE Grand Avenue (aka SE Grand Ave 7-Eleven), the south adjoining property, on behalf of Caldwell Properties (south adjoining property owner) and a Risk-Based Corrective Action (RBCA) closure report was prepared based upon the findings of the environmental investigations conducted from 2013 to 2017, positing that Stoddard Solvent and VOC contamination from Allyn's Cleaning and Dyeing had migrated onto the SE Grand Ave 7-Eleven property. Caldwell was engaged in a pending property transaction and obtaining a "No Further Action (NFA)" or equivalent determination from ODEQ was a requirement for closing the SE Grand Ave 7-Eleven transaction.

ODEQ assigned the project Environmental Cleanup Site Information (ECSI) identification #6199, and SE Grand Ave 7-Eleven was formally accepted into the VCP. The ECSI number, and responsibility for the release were assigned to the Site following review of the RBCA closure report prepared for SE Grand Ave 7-Eleven, and the subsurface investigations performed from 2013 to 2017. In lieu of an NFA determination, ODEQ agreed to issue a "comfort letter" if additional investigation was performed on the SE Grand Ave 7-Eleven property to further assess on-site conditions related to the release of VOCs and Stoddard solvent from the Site.

In February 2019, Point Source submitted a VCP/ICP Intent to Participate Form for the Site on behalf of Mr. Jeff Mincheff of Arcoa Partners, LLC (Site Owner), with intent to formally address the release of Stoddard Solvent and VOCs and pursue closure of ECSI #6199. Since 2018, the advancement of soil borings and installation of

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groundwater monitoring wells; quarterly groundwater monitoring; and soil gas sampling, sub-slab vapor sampling, and indoor air sampling have been executed at the Site and on adjoining properties in pursuit of the closure of ECSI #6199. Contamination of soil and groundwater as a result of the release of Stoddard Solvent and its associated constituents has been fully characterized and the extent of plumes has been estimated. A Beneficial Land and Water Use Survey has been conducted confirming that no beneficial use of groundwater is utilized in the locality of the facility. Based on these data, a Contaminated Media Management Plan (CMMP) enforceable by deed restriction to the Site and affected adjoining properties has been prepared.

Sub-slab vapor and indoor air results collected between 2021 and 2022 confirming high VOC concentrations, specifically of chloroform and carbon tetrachloride, inside the Site building basement led Point Source to pursue engineering control measures to control the concentrations of contaminants detected in the sub-slab vapor and indoor air. With ODEQ's acknowledgment of the nature of chloroform and its documented widespread volatilization into the air of subgrade basements, Point Source was directed to implement a system or remedial alternative focusing on controlling VOC vapor intrusion.

In March 2023, a sub-slab depressurization system (SSDS) was installed in the area of the highest concentrations of VOCs in the Site building basement, and in April verification samples were collected from sub-slab vapor monitoring points and from the vent riser of the SSDS. Based on the extent and characterization of the soil and groundwater plumes, engineering controls were placed to mitigate exposure to vapor and air containing contaminants of concern, and institutional controls were implemented at the Site, as well as verification sampling of soil vapor confirming reduction in concentrations of contaminants of concern. Point Source contends that this Site should be determined to require no further action with regard to ECSI #6199 by ODEQ.

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1.0 INTRODUCTION

1.1 Project Introduction

This report documents activities undertaken by Point Source Solutions LLC on behalf of Arcoa Partners LLC (Site owner) for the purpose of achieving regulatory closure for ECSI #6199, also known as "Former Allyn's Cleaning and Dyeing."

1.2 Purpose and Objectives

The purpose of this Voluntary Cleanup Program (VCP) Report is to:

- Document investigations associated with the Site in the pursuit of a "No Further Action" determination;
- Provide a comprehensive presentation of data collected during field activities on the Site and adjoining properties from investigations performed from 2017 to 2022;
- Determine the nature and extent of the impacts to soil, soil vapor, indoor air, and groundwater, and evaluate potential threats from these releases to the beneficial use of the Site;
- Develop a Conceptual Site Model (CSM);
- Complete a Beneficial Land and Water Use determination (BLWUD);
- Complete an Ecological Risk Assessment;
- Develop a list of Contaminants of Interest (COI) based upon the characteristics of the identified release;
- Compare Contaminants of Potential Concern (COPC) concentrations to the Oregon Department of Environmental Quality (ODEQ) Risk Based Concentrations (RBCs) for potentially complete exposure pathways;
- Document engineering and institutional controls implemented at the Site that address potentially complete exposure pathways.

The information provided in this report describes the work performed and provides documentation of the data and evaluation that constitutes the factual findings of the investigation and are intended to demonstrate the following:

- Residual contaminant concentrations in Site soil, groundwater, air and soil vapors do not pose unacceptable risks to human health or the environment for the Site or adjoining properties;
- A Beneficial Use of Groundwater for Tapwater Ingestion is not anticipated;
- A "No Further Action" determination for the Site is warranted from the ODEQ Cleanup Program.

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2.0 SITE BACKGROUND

2.1 Site Location

The Site is addressed as 1006 SE Grand Ave, Portland, OR, and is designated as Multnomah County Tax Lot 1S1E02BC1300 consisting of 0.44 acres. The Site is zoned EX - Central Employment by the City of Portland.

2.2 Site Description

The Site is improved with a 23,400 square foot three-story commercial building with a partial basement constructed in 1909 and a 2,100 square foot single-story addition to the east of the main Site building constructed in 1985.

The basement of the Site building is composed of a largely unfinished area running parallel to SE Grand Avenue, two small telecommunications rooms in the south portion, one central office space, and one large occupied unit on the east side. A hallway in the southernmost portion of the basement running east to west connects these spaces to stairs leading to the ground floor on the south and east sides. The City of Portland lists 5,600 square footage of "partial" basement space.

Retail space is found on the first floor and offices on the second and third floors.

The Site occupies an area that is bound to the north by SE Yamhill beyond which is a mixed-use, urban residential and commercial structure; to the east by SE 6th Avenue, beyond which is a commercial warehouse; to the south by a 7-Eleven Convenience Store (west) and Japanese Auto Repair (east); and to the west by SE Grand Avenue beyond which is commercial retail.

The Site is identified on a Site Location Map, Topographic Map, and Site Plan, all of which are located in **Figures 1, 2,** and **3** attached to this report.

2.3 Site History and Facility Operations

The Site was occupied by Allyn's Cleaning and Dyeing from 1935 to 1960. Sanborn Fire Insurance Maps dated 1924 and 1950 indicate that the dry cleaning room was located near the southeast corner of the current Site main building. Based on the Sanborn Maps, the dry cleaning area was replaced by the current drive and parking lot by 1969. Dry cleaners are known to use hazardous solvents in the cleaning process which often are released to the subsurface environment under normal operating conditions.

A copy of the 1950 Sanborn Map showing the former location of the drycleaner is included as **Appendix A**.

2.4 Regulatory History

A Voluntary Cleanup Program (VCP)/Independent Cleanup Pathway (ICP) Intent to Participate Form was filed by Point Source for 1024 SE Grand Avenue (aka SE Grand Ave 7-Eleven), the south adjoining property, on behalf of Caldwell Properties (south adjoining property owner) and a Risk-Based Corrective Action (RBCA) closure report was prepared based upon the findings of the environmental investigations conducted from 2013 to 2017, positing that Stoddard Solvent and VOC contamination from Allyn's Cleaning and Dyeing had migrated onto the SE Grand Ave 7-Eleven property. Caldwell was engaged in a pending property transaction and obtaining a "No Further Action" (NFA) or equivalent determination from ODEQ was a requirement for closing the SE Grand Avenue 7-Eleven transaction.

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ODEQ assigned the project Environmental Cleanup Site Information (ECSI) identification #6199, and SE Grand Ave 7-Eleven was formally accepted into the VCP. The ECSI number, and responsibility for the release were assigned to the Site following review of the RBCA closure report prepared for SE Grand Ave 7-Eleven, and the subsurface investigations performed from 2013 to 2017. In lieu of an NFA determination, ODEQ agreed to issue a comfort letter if additional investigation was performed on the SE Grand Ave 7-Eleven property to further assess on-site conditions related to the release of VOCs and Stoddard solvent from the Site.

In February 2019, Point Source submitted a VCP/ICP Intent to Participate Form for the Site on behalf of Mr. Jeff Mincheff of Arcoa Partners, LLC (Site Owner), with intent to formally address the release of Stoddard Solvent and VOCs and pursue closure of ECSI #6199.

2.5 Previous Investigations

The following is the environmental documentation and associated ODEQ correspondence for the Site:

- *Subsurface Environmental Site Assessment by Chugwater on behalf of Mr. Vince Huffstutter (Project CW130201.1 dated March 12, 2013);*
- *Phase II Environmental Site Assessment by Point Source on behalf of Caldwell Properties LLC (Project #OR160930-4A, dated January 24, 2017);*
- *Risk Based Corrective Action Determination by Point Source on behalf of Caldwell Properties LLC (Project #OR160930-4B, dated May 22, 2017);*
- *Additional Investigation Data by Point Source (Project #OR161202-3D, dated September 11, 2018);*
- *May 2020 Project Update and Work Plan by Point Source (Project #OR190517-3, dated May 13, 2020);*
- *Site-Specific Risk-Based Corrective Action Determination by Point Source on behalf of Arcoa Partners LLC (Project #OR190517-3, dated February 18, 2021)*

In 2013, Chugwater, LLC (CW) performed an Environmental Subsurface Investigation to investigate Recognized Environmental Conditions (RECs) identified in a Phase I Environmental Site Assessment (Project CW121116.2) performed by Chugwater for Killian Pacific LLC in December 2012. During this assessment, Stoddard Solvent and Volatile Organic Compounds (VOCs) believed to be associated with the past use of dry-cleaning chemicals on the Site were detected in soil, groundwater, soil-vapor, and indoor air. No further investigative or cleanup activities were performed at the time.

Copies of the 2013 CW reports are included in **Appendix B**.

Stoddard Solvent is a petroleum mixture historically used for a variety of commercial and industrial applications, including dry cleaning. Concentrations of Stoddard Solvent in soil and groundwater can be determined using Northwest Total Petroleum Hydrocarbons (NWTPH) analytical methods. NWTPH-Gx is a quantitative method for volatile petroleum products occupying the gasoline range which has been approved in the State of Oregon for quantifying Stoddard Solvent. For the remainder of this report Stoddard Solvent will also be referred to as TPH-Gx or simply Gx in the context of laboratory analytical data.

In 2017, Point Source was engaged to perform environmental subsurface investigations of the south adjoining

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properties at 1024 SE Grand Avenue and 521 SE Taylor Street (PSS Project #OR161202-3A-D) to investigate RECs identified during 2016 Phase I ESAs performed by Point Source (PSS Project #OR160930-4). Stoddard solvent, believed to be present as a result of former dry cleaning activities at the Site, was determined to have impacted soil, groundwater, and soil-vapor on both properties.

A VCP/ICP Intent to Participate Form was filed by Point Source for 1024 SE Grand Avenue (aka SE Grand Avenue 7-Eleven) on behalf of Caldwell Properties (property owner) and a Risk-Based Corrective Action (RBCA) closure report was prepared based upon the findings of the above investigations. Caldwell was engaged in a pending property transaction and obtaining a NFA or equivalent determination from ODEQ was a requirement for closing the SE Grand Ave 7-Eleven transaction.

Once the Site was designated ECSI #6199, a work plan for additional investigation was prepared by Point Source in collaboration with Mr. Kevin Dana, the ODEQ project manager assigned to the Site. The scope of work included additional soil, groundwater, and soil-gas testing on the SE Grand Ave 7-Eleven property. Additionally, one groundwater boring was to be advanced on the Site to evaluate current conditions in the vicinity of the presumed source, and to verify that the composition of Stoddard solvent and VOCs was consistent with those detected on the south adjoining properties.

The executed work was summarized by Point Source in a September 2018 Memorandum provided to ODEQ, who subsequently issued a “comfort letter” for the SE Grand Avenue 7-Eleven property identifying the Site as the source of the release and indicating that the SE Grand Avenue 7-Eleven property owners were not responsible for the release. The “comfort letter” concluded with a statement that ODEQ would contact the registered owners of the Arcoa Building property requiring them to investigate and, if necessary, remediate the contamination that originated on their property.

The SE Grand Ave 7-Eleven Phase II ESA, RBCA Closure Report, and the September 2018 Memorandum are available for download on the publicly accessible ODEQ database listing for ECSI #6199.

Following consultation with Mr. Dana of ODEQ, Point Source proceeded with a new phase of investigation primarily targeting the Site in an effort to pursue closure of ECSI #6199. Additional investigation was also performed on the SE Grand Avenue 7-Eleven property, which was presumed to be located in a hydrogeologic down/cross gradient position relative to the Site. Monitoring wells MW1 through MW5 were installed by Cascade Technical Services (Cascade) under supervision by Point Source at locations intended to evaluate stability of the groundwater plume, off-site migration, and to provide data on seasonal variations in the direction of groundwater flow.

MW1 through MW5 were developed, and quarterly groundwater monitoring (GWM) events were performed in October 2019, February 2020 and May 2020. Point Source provided Mr. Dana with a project update with the results of the quarterly groundwater monitoring in May 2020. In response to the project update, Mr. Dana recommended installing an additional monitoring well in the southwest corner of the SE Grand Ave 7-Eleven Property to address a data gap in the area. The monitoring well, designated MW6, was installed in July 2020.

Additional soil samples were collected during the monitoring well installation for the purpose of characterizing current conditions on the Site with respect to historical data obtained during the prior Site investigations, further delineating the extent of the impacted soil plume, and for follow-up analysis by NWEPH for Extractable Petroleum Hydrocarbons, and NWVPH for Volatile Petroleum Hydrocarbons. NWEPH/VPH data was utilized for

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development of Site-Specific Risk Based Concentrations (SSRBCs) for Stoddard Solvent expressed as generic Total Petroleum Hydrocarbons in the gasoline range (TPH-Gx).

Field activities by Point Source in 2020 and 2021 also included additional soil-gas and sub-slab vapor, indoor air, and outdoor ambient air testing to investigate the vapor intrusion pathway for occupants of the Site building, and to determine if conditions on the eastern tax lot were protective of urban residential receptors based upon future development plans.

A cumulative view of all environmental investigative work conducted on the Site from 2013 to 2021 was compiled in a Site-Specific Risk-Based Corrective Action Determination report that was submitted to ODEQ in February 2021.

The Site and vicinity, soil and groundwater borings, soil vapor and indoor air sample locations, as well as monitoring well locations are depicted in the attached **Figures 1 through 7**.

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3.0 ENVIRONMENTAL SETTING

3.1 Climate Information

The average annual precipitation for the City of Portland is 36.0 inches. The annual average high temperature for Portland is approximately 63.3 degrees Fahrenheit (F), while the average low temperature is 45.7 degrees F.

3.2 Topography

The elevation of the Site is approximately 53 feet above mean sea level (msl). The land surface in the Site vicinity slopes west toward the Willamette River.

3.3 Surface Water Hydrology

The Site is mostly covered by impervious surfaces such as property buildings, infrastructure, and asphalt pavement, which sheet flow to catch basins on surrounding street corners plumbed to municipally managed stormwater lines. Stormwater from the Site building rooftop flows through gutters directly to the municipal stormwater line.

3.4 Regional and Site Geology and Soils

The Site is situated in the Willamette Valley (Orr, Orr, Baldwin, 1992). The Willamette Valley is a structural depression with hills of moderate relief separating broad alluvial flats. It lies between the Cascade Range and the Coast Range and extends from the Portland Basin southward to a point near the city of Cottage Grove. The Willamette Valley consists of numerous terraces and reworked floodplains mostly of Pleistocene and recent age. Regional geology consists of a stratigraphic sequence of largely Quaternary sediments and flood deposits associated with the Willamette River and its tributaries, overlying older parent rock including Cascade volcanic rocks and Columbia River Basalts.

3.5 Hydrogeology

Groundwater has been encountered on Site at 26 to 34 feet below ground surface (bgs). No water wells or springs are on the Site.

The direction of groundwater flow in the vicinity of the Site varies seasonally from west to southwest according to potentiometric surface data collected during groundwater monitoring events from October 2019 to October 2020.

Figures 8A through 8E depict groundwater elevation contours developed from Static Water Level (SWL) measurements collected during five instances of groundwater monitoring.

According to the USEPA Ground Water Handbook, Vol.1 Ground Water and Contamination, September 1990, the water table typically conforms to surface topography. This means the direction of flow for shallow groundwater is generally from higher elevations to lower elevations. Localized flow direction may vary as a result of tide, rainfall, development, geologic characteristics, nearby surface water bodies, underground utilities such as storm drains, septic systems and sewers, or other influences such as the presence of high-volume wells.

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4.0 SITE INVESTIGATION

4.1 Site Characterization Plan

4.1.1 Soil and Groundwater Sampling

The initial phase of investigation was conducted by Chugwater from December 2012 to February 2013. During the investigation, borings were advanced by Chugwater as follows:

- Soil borings SB1, SB2, SB7, and SB8 were advanced to depths of up 17.0 feet below ground surface (bgs) in an east to west transect originating from the former dry cleaner location at the SE corner of the Site building. **Staining and odor indicative of soil contamination was observed from approximately 6.5 feet bgs to 16.0 ft bgs.** Soil samples were collected at select intervals within each boring. Soil samples were analyzed for TPH-Dx, VOCs, and RCRA 8 Metals at ESN Northwest in Olympia, Washington. SB8 was analyzed for TPH-Dx, TPH-GX (Stoddard Solvent), and VOCs. Groundwater was not observed.

- Soil borings SB3 through SB6 were advanced in the eastern parking lot of the Site to depths of up to 15.0 feet bgs. No evidence of soil contamination was observed. Soil samples were collected at select intervals within each boring. Soil samples were analyzed for TPH-Dx, VOCs, and RCRA 8 Metals at ESN Northwest. Groundwater was not observed.

- Boring SB2b was advanced for the purpose of collecting groundwater and soil-water interface (SWI) samples beneath the worst-case soil contamination encountered on Site. Groundwater was encountered at 28.0 feet bgs. Groundwater and SWI samples were collected. SB2b was analyzed for TPH-Dx, TPH-Gx, and VOCs at ESN Northwest.

Sample results are tabulated in **Tables 1A and 2A**.

From January 2017 through March 2017, Point Source performed a subsurface investigation at the south adjoining 7-Eleven and Japanese Auto Repair properties.

- Borings SB15 and SB17 were advanced in the 7-Eleven parking lot. Borings were advanced to a depth of 12.0 feet bgs. Soil was screened continuously, and no olfactory or visual indication of petroleum hydrocarbon contamination was noted in samples collected from these borings. Field screening with a photoionization detector (PID) did not indicate VOC readings above background levels for the area. Samples were analyzed for TPH-Dx, TPH-Gx, and VOCs at Wy'East Environmental Sciences in Portland, Oregon.

- SB16 was advanced in the northeast corner of the storeroom located in the east half of the 7-Eleven building. This boring was advanced to hard refusal on a tight confining layer located at 16.5 feet bgs. **Stained soil with a solvent odor was observed from 9.0 feet to 16.0 feet bgs. Field screening with a PID indicated VOC readings as high as 1,192 parts per million (ppm). Soil staining abruptly terminated at the confining layer encountered slightly above the refusal depth. Unstained soil from 16.0 to 16.5 feet bgs retained a slight odor of solvents**. No groundwater was encountered in this boring. The sample was analyzed for TPH-Dx, TPH-Gx, and VOCs at Wy'East Environmental Sciences.

- SB18 was advanced in the storeroom approximately 15 feet south of SB16. This boring was advanced to refusal on a tight confining layer located at 17.0 feet bgs. **Soil with a light solvent odor was observed**

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starting at 9.0 feet bgs. Soil staining was observed in a narrow band from 9.5 to 10.0 feet bgs. No staining was observed from 11.0 to 14.0 feet bgs, however soils within this interval retained a light solvent odor. Stained soils with a heavy odor of solvents were observed again starting at 13.0 feet bgs and continued to the refusal depth of 17.0 feet bgs. Contamination at refusal appeared moderate when compared to earlier runs. Field screening with a PID indicated VOC readings as high as 1,508 ppm. No groundwater was encountered in this boring. The sample was analyzed for TPH-Dx, TPH-Gx, and VOCs at Wy'East Environmental Sciences.

- Boring SB19 was completed to hard refusal at 17.5 feet bgs in the southeast corner of the 7-Eleven storeroom, approximately 12 feet south of SB18. Native soil consisting of clayey silt, sandy silt, silt, and fine sand was encountered in the boring. Coarse sand and gravel was noted at the refusal depth of 17.5 feet. Soil samples were collected at depths of 10.0 feet bgs and 17.5 feet bgs at this location. Groundwater was not encountered in this boring. **Indications of light to moderate contamination were noted in bands at several depths between 9.0 and 16.0 feet bgs in the continuous soil cores collected from this boring**. The samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB20 was completed to progress refusal at 18.0 feet bgs in the northwest corner of the 7- Eleven storeroom against the wall separating the store room from the sales floor. Native soil consisting of clayey silt and silt was encountered in the boring. Soil samples were collected at depths of 10.0 feet bgs and 18.0 feet bgs at this location. Groundwater was not encountered in this boring. **Indications of heavy contamination were noted between 9.0 and 16.0 feet bgs in the continuous soil cores collected from this boring**. **Field screening of soils between 16.0 and 18.0 feet bgs indicated a light odor of contamination and no staining.** The samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB21 was completed to 16.0 feet bgs outside the 7-Eleven building in the parking lot. Shallow soils consisted of urban fill, including asphalt, pulverized brick, and mortar. Native soils consisted of clayey silt. A soil sample was collected from a depth of 16.0 feet at this location. Groundwater was not encountered at this boring. **No indications of contamination were noted in the continuous soil cores collected from this boring.** The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB22 was completed to hard refusal at 13.8 feet bgs in the Japanese Auto Repair building (east adjacent to the 7-Eleven property). Native soil consisting of silt, sandy silt, and fine sand was encountered in the boring. A soil sample was collected at a depth of 13.8 feet bgs at this location. Groundwater not encountered in this boring. **Indications of heavy contamination were noted between 12.2 and 13.8 feet bgs in the continuous soil cores collected from this boring**. The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB23 was completed to hard refusal at 13.5 feet bgs in the Japanese Auto Repair building, approximately 14 feet northeast of SB22. Native soil consisting of silt, clayey silt, sandy silt, and fine sand was encountered in the boring. A soil sample was collected at a depth of 13.5 feet bgs at this location. Groundwater not encountered in this boring. **Indications of heavy contamination were noted between 12.0 and 13.5 feet bgs in the continuous soil cores collected from this boring**. The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB24 was completed to hard refusal at 13.7 feet bgs in the northwest corner of the Japanese Auto Repair building. Native soil consisting of silt, clayey silt, sandy silt, and fine sand was encountered in the

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boring. A soil sample was collected at a depth of 13.5 feet bgs at this location. Groundwater not encountered in this boring. **Indications of heavy contamination were noted between 4.5 and 13.7 feet bgs in the continuous soil cores collected from this boring**. The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB25 was completed to hard refusal at 13.7 feet bgs in the Japanese Auto Repair building, approximately 13 feet east of SB23. Native soil consisting of gravel, silt, silty sand, coarse and medium sand was encountered in the boring. A soil sample was collected at a depth of 14.0 feet bgs at this location. Groundwater not encountered in this boring. **No indications of contamination were noted in the continuous soil cores collected from this boring.** The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

Sample results are tabulated in **Table 1B and 1C**.

An additional investigation was performed in May 2018. Soil and groundwater borings were advanced by Cascade under supervision of Point Source personnel. All soil and groundwater samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB26 was advanced to progress refusal at 34.0 feet bgs in an attempt to characterize groundwater conditions in the vicinity of the impacted soil plume. **Impacted soils were observed in the boring from 8.0 feet to 20.0 feet bgs**. Groundwater was first encountered in this boring at 29.5 feet bgs, and a static water level of 28.4 feet was measured in a temporary monitoring well. A groundwater sample was collected from this boring (W26). No sheen or odors were observed in water purged from the boring during sample collection.

- Boring SB27 was advanced to progress refusal at 34.0 feet bgs along the south property line of the 7-Eleven property. Impacted soils were not observed in this boring. Groundwater was first encountered in this boring at 33.0 feet bgs, and a static water level of 30.0 feet was measured in a temporary monitoring well. A groundwater sample was collected from this boring (W27). No sheen or odors were observed in water purged from the boring during sample collection.

- Boring SB28 was advanced to progress refusal at 32.0 feet bgs in the southwest corner of the 7-Eleven property. **Impacted soils were observed in this boring at 30.0 feet bgs**. Wet soil was first encountered at 30.0 feet bgs. An attempt was made to collect a groundwater sample, however the temporary monitoring well was dry following over 30 minutes of equilibration time. A soil sample was collected (SB28-S1) at the apparent soil-water interface (30.0 feet bgs) in place of a groundwater sample.

- Boring SB29 was advanced to progress refusal at 32.0 feet bgs in the southwest corner of the 7-Eleven property. **Impacted soils were observed in this boring at 30.0 feet bgs**. Groundwater was first encountered in this boring at 30.0 feet bgs, and a static water level of 30.5 feet was measured in a temporary monitoring well. A groundwater sample was collected from this boring (W29). No sheen or odors were observed in water purged from the boring during sample collection.

Sample results are tabulated in **Tables 1D** and **2B.**

In August 2019, monitoring wells MW1 through MW5 were installed by Cascade under supervision by Point

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Source Solutions. Soil was screened from the ground surface for the purpose of collecting additional samples for characterization, and for determining the proper screened interval. All samples were analyzed for Extractable and Volatile Petroleum Hydrocarbons (EPH/VPH) at Fremont Analytical in Seattle, Washington, and TPH-Dx, TPH-Gx, and VOCs at Apex Laboratories.

- MW1 was advanced to a depth of 33.0 feet bgs on the north property line of the Site. Impacted soils were not observed in the boring. Groundwater was encountered at 26.0 feet bgs and a soil sample was collected from the soil water interface (SWI). The monitoring well was installed with a screened interval of 23.0 to 33.0 feet bgs.

- MW2 was advanced to a depth of 35.0 feet bgs on the east property line of the Site. Impacted soils were not observed in the boring. Groundwater was encountered at 30.0 feet bgs and a soil sample was collected from the SWI. The monitoring well was installed with a screened interval of 25.0 to 35.0 feet bgs.

- MW3 was advanced to a depth of 40.0 feet bgs on the east edge of the 7 Eleven property parking lot. **Impacted soils were observed at the SWI** and a soil sample was collected. Groundwater was encountered at 36.0 feet bgs. The monitoring well was installed with a screened interval of 30.0 to 40.0 feet bgs.

- MW4 was advanced to a depth of 40.0 feet bgs on the West property line of the Site. **Impacted soils were observed from 9.5 feet bgs to the SWI.** Soil samples were collected at several intervals based on field indicators, and from the SWI. Groundwater was encountered at 34.0 feet bgs. The monitoring well was installed with a screened interval of 30.0 to 40.0 feet bgs.

- MW5 was advanced to a depth of 35.0 feet bgs in the vicinity of the former dry cleaner location. **Impacted soils were observed from 7.0 feet bgs to the SWI.** Soil samples were collected based on field indicators, and from the SWI. Groundwater was encountered at 34.0 feet bgs. The monitoring well was installed with a screened interval of 30.0 to 40.0 feet bgs.

Sample results are tabulated in **Table 1E**.

From October 2019 to October 2020, four quarterly groundwater monitoring events were conducted in which MW1 – MW5 were sampled from. MW6 was installed in July 2020, developed in August 2020, and sampled from during the final groundwater monitoring event of October 2020. Static water levels were measured and recorded in all wells during every monitoring event, which are recorded **in Section 4.3.2**.

- In October 2019, groundwater samples were analyzed for TPH-Dx and TPH-Gx at Wy'East Environmental Sciences, VOCs at Apex Laboratories in Tigard, Oregon, and EPH/VPH at Fremont Analytical.

- In February 2020, groundwater samples were analyzed for TPH-Dx, TPH-Gx, and VOCs at Apex Laboratories.

- In May 2020, groundwater samples were analyzed for TPH-Dx, TPH-Gx, and VOCs at Apex Laboratories.

- In October 2020, groundwater samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

Sample results for the four quarterly groundwater monitoring events are tabulated in **Tables 2C through 2F.**

In April 2022, six boring locations were advanced in the unoccupied basement space underlying the sidewalk

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fronting the Site building, and one was advanced in the basement hallway outside of the telecommunications room. Samples from select intervals of SB10 through SB14 were analyzed for GRO and VOCs at Friedman and Bruya Environmental Chemists in Seattle, Washington.

- Borings SB9 through SB13 were advanced on the westernmost side of the basement surrounding the area in which sub-slab vapor sample SV3 was originally collected. Soil samples were collected at intervals of 2', 4' and 6' bgs in each boring, with the exception of SB10, where drilling refusal was met at 4' bgs. Impact was not observed in any of the borings. Groundwater was not encountered.

- Boring SB14 was advanced in the hallway outside of the telecommunications room on the west side of the basement to a depth of 6' bgs. Soil samples were collected at intervals of 2', 4', and 6' bgs in each boring. Impact was not observed in the boring. Groundwater was not encountered.

Sample results are tabulated in **Table 1F**.

In March 2023, an additional groundwater monitoring event of all installed monitoring wells was conducted in order to compare contemporary concentrations with the last time groundwater monitoring had been undertaken in 2020. Samples were analyzed for TPH-Gx and VOCs at Friedman and Bruya and are tabulated in **Table 2G**.

4.1.2 Soil Gas, Sub-slab Vapor, and Indoor Air Sampling

One outdoor soil gas sample, one sub-slab vapor sample, and two indoor air samples were collected during the 2013 Chugwater investigation:

- Soil-gas vapor sample SV2 was collected south of the Site building in the parking area. Sub-slab vapor sample SV3 was collected in the southwest portion of the Site building.

- Sub-slab vapor sample SS2 was collected from underneath the south portion of the foundation slab of the former Auto Collision Center in an attempt to represent an evenly distributed assessment of the sub-slab vapor conditions.

- Indoor air sample Arcoa IA-1 was collected in the basement communications room of the Site building and sample Arcoa IA-2 was collected in the large work area utilized by SalonCentric (tenant).

All samples were analyzed via Method TO-15 at Eurofins Air Toxics. Sample results are tabulated in **Table 3A**.

During the 2017 subsurface investigation of the south adjoining properties, sub-slab vapor sample SS2 was collected in the SE Grand Ave 7-Eleven storeroom. SS2 was analyzed via Method TO-15 at Friedman and Bruya Environmental Chemists. Sample results are tabulated in **Table 3B**.

In May 2018, one soil gas vapor sample and two sub-slab vapor samples were collected from the SE Grand Ave 7-Eleven:

- Soil-gas vapor sample SV3 was collected south of the building, in the 7-Eleven property parking lot.

- Sub-slab soil vapor sample SV4 was collected adjacent to soil-vapor sample location SS2, which was

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collected during the prior round of investigation by Point Source.

- Sub-slab soil vapor sample SV5 was collected in the southeast corner of the 7-Eleven storeroom, between SV4 and SV3.

All samples were analyzed via Method TO-15 at Friedman and Bruya Environmental Chemists. Sample results are tabulated in **Table 3B**.

In December 2019, additional sub-slab and soil-gas vapor samples were collected by Point Source.

- Sub-slab vapor sample SS1 was collected through the basement floor of the Site building at a location near the former dry cleaner area.

- Soil-gas vapor sample SV1 was collected directly north of the impacted soil plume in the vicinity of the former dry cleaner location.

All samples were analyzed via Method TO-15 at Friedman and Bruya Environmental Chemists. Sample results are tabulated in **Table 3B**.

Point Source collected an additional soil-gas vapor sample in October 2020.

- Soil-gas vapor sample SV1b was collected adjacent to SV1, directly north of the impacted soil plume in the vicinity of the former dry cleaner location.

The sample was analyzed via Method TO-15 at Eurofins Air Toxics. Sample results are tabulated in **Table 3C**.

Point Source collected additional soil-gas and sub-slab vapor samples in November 2020.

- Soil-gas vapor sample SV6 was collected adjacent to W26, off of the southeast corner of the Site building.

- Soil-gas vapor sample SV7 was collected in the center of the east adjoining parking lot.

- Soil-gas vapor sample SV2b was collected adjacent to SV2 (2013), south of the Site building in the parking area.

- Sub-slab vapor sample SV3b was collected adjacent to SV3 (2013), in the southwest corner of the Site building in the basement.

All samples were analyzed via Method TO-15 at Eurofins Air Toxics. Sample results are tabulated in **Table 3C.**

Point Source collected indoor air and outdoor ambient air samples in December 2020.

- Indoor air sample AA1 was collected adjacent to SV3b.

- Indoor air sample AA2 was collected adjacent to SS1 (2019), in the hall of the basement on the south side of the site building.

- Outdoor ambient air sample AA3 was collected adjacent to SV6.

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All samples were analyzed via Method TO-17 at Friedman and Bruya Environmental Chemists. Sample results are tabulated in **Table 4B.**

Point Source collected indoor air and outdoor ambient air samples in January 2021.

- Outdoor ambient air sample AA4 was collected in the same location as AA3.
- Indoor air sample AA5 was collected in ground floor unit directly above where basement indoor air sample AA1 was collected.
- Indoor air sample AA6 was collected in the same location as AA1.
- Indoor air sample AA7 was collected in an unoccupied basement unit east of AA6.

All samples were analyzed via Method TO-15 at Friedman and Bruya Environmental Chemists. Sample results are tabulated in **Table 4C.**

Point Source collected one sub-slab vapor sample from the southeast adjoining property, currently occupied by Japanese Auto Repair. The sample was collected in response to ODEQ's July 2021 "Comments on RBCA Determination" memo that pointed to elevated PCE concentrations in the area. Labelled sample "SS1", the sample was analyzed via Method TO-15 at Friedman and Bruya Environmental Chemists in January 2022. Sample results are tabulated in **Table 5**.

Point Source collected three sub-slab vapor samples and two indoor air samples in March 2022.

- Sub-slab vapor sample SV8 was collected in the easternmost then-unoccupied tenant space.
- Sub-slab vapor sample SV9 was collected in the northwest corner of the unfinished section of the basement underlying the sidewalk of SE Grand Ave.
- Sub-slab vapor sample SV10 was collected in the center of the basement hallway.
- Indoor air sample AA8 was collected in the easternmost then-unoccupied tenant space.
- Indoor air sample AA9 was collected in the unfinished section of the basement in the same location as where AA1 and AA6 were collected.

Sample results are tabulated in **Table 3D**.

Point Source collected a sewer gas sample (sample name: "Sewer Gas") from a sanitary sewer cleanout on the western edge of the building perimeter in the unfinished section of the basement.

AA8, AA9, and the sewer gas sample were collected via Method TO-15 and analyzed at Friedman and Bruya Environmental Chemists. Sample results from the event are tabulated in **Table 4D**.

In April 2023, Point Source collected a confirmation sub-slab vapor sample in the vicinity of the former location of sub-slab vapor sample SV3/SV3b. A soil gas sample was also collected from the sample port of the newly installed vapor extraction system. Both samples were collected via Method TO-15 and analyzed at Friedman and

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Bruya. Sample results are tabulated in **Table 3E.**

4.2 Sampling Methods

4.2.1 Soil Sampling Methods

Exterior soil borings were advanced using Geoprobe DT22 and MC5 tooling driven by a truck mounted probe. Soil samples were obtained continuously from the surface using the 2.25-inch diameter sample tooling lined with a PVC sleeve. The sampling tool was driven in 4 to 5-foot intervals until the target depth was achieved.

Interior borings were advanced using Geoprobe Large Bore tooling driven by an electric jackhammer. Soil samples were obtained continuously from the surface using the 2-foot-long, 1.5-inch diameter sample tooling lined with PVC sleeve. The sampling tool was driven in 2-foot intervals until the target depth was achieved.

Soils were field-screened using visual, sheen, and olfactory observations, and for the presence of VOCs using a hand-held Photoionization Detector (PID). Headspace vapor screening was conducted on representative samples placed in a sealed plastic bag. The tip of a PID was inserted into a hole in the bag, and the presence of VOCs was measured. Readings are collected in parts per million (ppm). Notes on visual appearance, odor and PID readings were recorded on the field boring logs located in **Appendix C**.

Soil samples were collected in 4-ounce glassware with Teflon-lined lids, and 40-mL VOA vials pre-preserved with methanol. Each sample was labeled for identification, stored in an iced cooler, and transported under chain-of-custody to an approved laboratory.

Tooling was decontaminated in water with Liquinox™ phosphate-free detergent and rinsed in tap water between all samples and boring locations. Samples were placed in laboratory provided containers.

4.2.2 Groundwater Sampling Methods

Groundwater samples were collected from single-use temporary PVC well screens placed with direct push technology, and from permanent monitoring wells installed during project activities. The static water level was recorded with a water level meter inserted into the PVC screen. Three well volumes were purged from each well with a Geotech Peristaltic Pump. Purge water generated during water sample collection was visually inspected for free product and sheen and monitored for odors. The peristaltic pump flow rate was reduced during sample collection to minimize agitation of the groundwater and loss of volatiles.

Water samples were collected in 1 Liter unpreserved amber bottles, 1 Liter amber bottles pre-preserved with hydrochloric acid, and 40-mL VOA vials pre-preserved with hydrochloric acid. Each sample was labeled for identification and stored in an iced cooler.

4.2.3 Monitoring Well Installation and Development

The monitoring wells were installed by well drillers licensed by Oregon Water Resources Department (OWRD). The monitoring wells were installed as follows:

- Soils were screened from ground-surface for the purpose of further characterizing the impacted soil plume, and for locating the soil-water interface (SWI).

- ¾-inch prepacked screens inserted into a direct push bore-hole consisted of standard slotted PVC

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surrounded by a stainless steel mesh packed with clean filter sand. A 10.0-foot screened interval was utilized to account for seasonal variations in the static water-level (SWL).

- Prepacked screens were connected to solid PVC risers which terminated approximately 6.0 inches below ground surface. The top of each riser was marked to ensure consistent SWL measurements.

- Concrete and bentonite seals were placed in the monitoring well bore hole according to the requirements of OWRD, and a flush-mount monument was installed to a depth of approximately 1.0 foot below surrounding grade.

- Top-of-casing (TOC) for each monitoring well was surveyed in reference to the COP Datum and COP benchmark #1818, located in the sidewalk on the northwest corner of the intersection of SE Grand Avenue and SE Taylor Street. A closed circuit "level loop" was completed to verify the surveyed TOC elevations.

- Approximately 5.0 gallons of water was purged from each well during development of MW1 through MW5. During development the purge tubing was periodically agitated to facilitate removal of fines from the formation. Development ceased when agitation of the purge tubing did not produce visible fines in the purge water. MW6 was minimally developed due to poor recharge and production. No excessive sedimentation or decrease in well volume was noted during monitoring events.

OWRD Monitoring Well Reports for MW1 through MW6 are included as **Appendix D**.

4.2.4 Soil Gas, Sub-Slab Vapor and Indoor Air Sampling Methods

The soil-gas probes consisted of a prefabricated stainless steel screen and casing (Geoprobe PRT Sampler). The tool string was driven to a depth of 5.0 feet bgs with direct push tooling and retracted approximately 6 inches. A bentonite seal was applied to the point of ground penetration and at the exit of the Teflon tubing through the Geoprobe tool string.

The sub-slab probes consisted of a prefabricated stainless steel sampling point (VaporPin™). The pin was inserted into a 3/8-inch hole drilled through the building floor. A water dam was placed around the base of the pin to act as an on-site leak check. No drop in water level was observed during purging or sample collection.

Soil gas and sub-slab vapor samples were collected in 1 liter sample canisters provided by Friedman & Bruya Environmental Chemists, and Air Toxics Eurofins. The sample canister, Teflon tubing, vacuum gauges and flow rate orifice apparatus were connected in the sample string. Vacuum gauges and sample canister vacuum were checked before initiating sample collection. After approximately 20-minutes of equilibration time the air volume within the collection apparatus and Teflon tubing was purged for a minimum of three volumes. Paper towels saturated with 2-Propanol were placed over the bentonite seals and equipment fittings during sample collection as a quantifiable leak check compound. A clean pair of disposable nitrile gloves was worn during the collection of each sample.

Indoor air and outdoor ambient air samples taken in 2020 were collected using laboratory-provided sorbent tubes. Sorbent tubes, Teflon tubing, and SKC low-flow Pocket Pump™ were connected in sample trains connected with brass and nylon Swagelok™ fittings, and Masterflex™ silicone tubing. The sample trains were contained within tamper-free protective cases, with an inlet located outside the cases.

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The pocket pump flow rates were set by connecting them to a Gillian wet cell flow meter with an inactive, model sample train between them. After letting the pump stabilize flow for 5 minutes, a reading was taken with the meter, and the pump's flow rate was adjusted until the desired rate of approximately 21 mL/min was achieved. The flow rate was chosen to establish a target sampling volume of approximately 30 Liters over a 24 hour sampling interval to simulate exposure to urban-residential receptors. The two indoor air samples were positioned at head-height using tripods and placed over the two most recent sub-slab samples taken from the site building. The ambient outdoor air sample was set at head height, with the inlet located on the south side of the building in an approximately up-wind direction. Historical weather data available from the National Oceanic and Atmospheric Administration (*Weather History for KORPORTL542, accessed 12/29/20, (https://www.wunderground.com/dashboard/pws/KORPORTL542/graph/2020-12-17/2020-12-17/daily*) indicates that the prevailing wind direction during the sampling event was from the south.

Indoor/ambient air sampling events in January 2021 and March 2022 were performed using laboratory-provided 6-Liter Summa Canisters with pre-calibrated flow controllers. TO-15 methods were utilized for the target analyte list and associated method detection limits differed from the initial round that required TO-17. Sampling materials were provided by Friedman & Bruya Environmental Chemists, and the same protocols were followed as in the initial indoor/ambient sampling event. An 8-hour sampling interval was utilized as the sampling event was intended to evaluate potential risk to Occupational receptors.

Tooling and fittings were decontaminated in a water and detergent solution and rinsed in tap water between all samples and boring locations. Samples were placed in laboratory provided containers. Chain of Custody was maintained for all samples.

4.3 Sampling Results

Laboratory analytical sample results are summarized in **Tables 1A-5** attached to this report**.**

Copies of the laboratory analytical reports are included in **Appendix E.**

4.3.1 Quality Assurance/Quality Control Review

Laboratory QA/QC measures were performed through data validation of available analytical data generated as part of these sampling events. Data validation considered the following:

- Method Detection and/or Reporting Limits
- Laboratory Matrix Blanks
- Sample Holding Times
- Surrogate and Matrix Spike Recoveries, and
- Laboratory Duplicate Analysis Results

None of the laboratories utilized during this project reported any qualifiers which would indicate problems with the sample results. According to the lab reports provided, all analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Exceptions are qualified in the analytical report.

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For 2013 Indoor Air samples IA-1 and IA-2 the reporting limits for many compounds were above the most stringent RBCs applicable to this Site. This includes Carbon Tetrachloride, Benzene, Ethylbenzene, Trichloroethylene (TCE), 1,2-Dichloroethane (EDC), and Chloroform which were all detected in various media at concentrations that exceed generic RBCs. As such, these Indoor Air analytical results are considered invalid and will not be considered for the risk screening described in the proceeding sections.

Indoor air sample AA1 (F&BI #012372) initially failed the TO-17 internal standard acceptance criteria. The sample was diluted and reanalyzed with acceptable results. Both data sets were reported. All other quality control requirements were acceptable.

4.3.2 Potentiometric Surface Data Evaluation

Monitoring well TOC elevations and water-level measurements collected during the October 2019, February 2020, May 2020, October 2020, and March 2023 GWM events are summarized in the table below.

Water level data is plotted and contoured as depicted on **Figures 8A through 8E**. The potentiometric surface for groundwater flow indicates a generally west to west-southwest flow towards the Willamette River located approximately 0.37 miles due west of the Site.

MONITORING WELL TOC AND SWL ELEVATIONS						
	MW1	**MW2**	**MW3**	**MW4**	**MW5**	**MW6**
TOC Elevation	**48.08**	**48.24**	**52.06**	**52.38**	**51.52**	**53.16**
SWL Elevation – October 2019	23.14	23.24	21.76	21.48	23.21	N/A
SWL Elevation – February 2020	23.98	24.03	23.91	22.98	24.04	N/A
SWL Elevation – May 2020	22.98	23.03	22.85	22.08	22.99	N/A
SWL Elevation – October 2020	22.95	23.09	22.76	21.68	23.02	22.76
SWL Elevation – March 2023	22.81	22.82	22.76	22.28	22.84	23.42

Table Note:

Elevations for TOC and SWL are in reference to the COP Datum. Point Source utilized COP benchmark #1818, elevation 53.408 ft for establishing monitoring well TOC elevations.

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5.0 SOURCES, NATURE, AND EXTENT OF CONTAMINATION

5.1 Source(s) of Contamination

The primary sources of historical contamination include the following:

- A release of dry-cleaning solvents (Stoddard and VOCs) to soil and groundwater, which has resulted in soil-gas and indoor air impacts.

- A release of chloroform to sub-slab vapor and indoor air from presumably volatilized municipal water and sewer gas.

The Site was occupied by Allyn's Cleaning and Dyeing from 1935 to 1960. By 1969, the dry-cleaning area was replaced with the current driveway and parking lot according to historic Sanborn Fire insurance maps (**Appendix A**). The approximate location of the former dry cleaner area is depicted on the sample location diagrams **(Figures 4A through 6A).**

Dry cleaner solvents can be released to the environment from a variety of sources, including leaking above ground drums, sub-floor product delivery piping, and underground storage tanks. Improper disposal and handling of chemicals, such as pouring solvents directly onto the ground or into sewer drains with compromised piping can also result in releases.

After an extensive inspection of the condition of the basement of the Site building, numerous penetrations in the building slab were observed, including floor drains, sumps, and cracks. A scope of the sanitary sewer line serving the Site building was completed in 2022 confirming that though the condition of the line under the basement slab is in a functional state, its construction is of cast-iron, and the joints of the line are presumed to be original. As this line runs under a portion of the slab in close proximity to where some of the highest concentrations of VOCs in sub-slab vapor and indoor air were observed, it is likely that the condition of the line and ongoing water intrusion issues in this area of the building have contributed to the detections of chloroform.

5.2 Nature of Contamination

To identify compounds detected in Site soil, groundwater, soil vapor, and indoor air that are most likely to be of concern to human health, detected concentrations of these contaminants were compared to a series of risk-based screening criteria that cover the range of potential human activities that may be practiced on the Site currently or in the future.

Compounds with detected concentrations were identified as being Contaminants of Interest (COIs). It should be noted that the identification of COIs does not indicate that an unacceptable risk or that a threat exists. Also, COI identification does not necessarily indicate that remediation of a specific environmental media is required. Screening criteria are purposely conservative so chemicals that may contribute to Site risk can be further evaluated. The COIs for the Site include TPH, various VOCs and metals detected in soil, groundwater, soil vapor, and indoor air samples.

A summary of COIs is presented below.

CONTAMINANTS OF INTEREST					
Contaminant	Soil Max Concentration (mg/kg)	Depth (feet)	Groundwater Max Concentration (ug/L)	Soil Vapor Max Concentration (ug/m³)	Indoor Air Max Concentration (ug/m³)
TPH-Gx (Stoddard)	**23,100**	9.0	**2,200**	1,500,000	120
TPH-Dx	**7,100**	8.0	**125**	Not Analyzed	Not Analyzed
TPH-Dx (Heavy Oil)	**92.7**	31.0	Not Detected	Not Analyzed	Not Analyzed
Carbon Tetrachloride	Not Detected	Not Applicable	Not Detected	**3,700**	**2.7**
Chloroform	**2.7**	8.0	**35**	**50,000**	**20.0**
Benzene	**93**	8.0	**3.4**	**240**	**0.91**
Cis-1,2-DCE	Not Detected	Not Applicable	**1.6**	**84**	Not Analyzed
1,1-DCE	**0.05**	8.0	Not Detected	Not Detected	Not Analyzed
EDC	**2.5**	8.0	Not Detected	**0.15**	Not Detected
Ethylbenzene	**18**	8.0	**1.32**	**610**	**0.55**
Isopropylbenzene	**27**	8.0	**9.9**	**1,100**	Not Analyzed
Naphthalene	**37.4**	4.5	**14**	**2.6**	Not Detected
PCE	**8.6**	8.0	**53**	**4,500**	Not Detected
TCE	**12.9**	12.0	**5.1**	**220**	**0.13**
1,2,4-TMB	**479**	9.0	**140**	**7,800**	Not Detected
1,3,5-TMB	**150**	8.0	**57**	**8,400**	Not Detected
Toluene	**40**	8.0	Not Detected	**34**	Not Analyzed
Vinyl Chloride	Not Detected	Not Applicable	**0.614**	Not Detected	Not Analyzed
Total Xylenes	**170**	8.0	**37**	**2,700**	Not Analyzed

Table Notes:

COIs that have concentrations less than one or more RBCs can be screened out. Constituents that remain after the screening are COPCs. The COPCs have been carried forward for the risk screening discussed in ***Section 9.1****.*

5.3 Extent of Contamination

5.3.1 Soil

Stoddard Solvent as TPH-Gx was detected at a maximum concentration of 23,100 mg/Kg in a soil sample collected from 9.0 feet bgs while installing monitoring well MW5. Similar concentrations of Gx were detected in other borings advanced in this area including SB24 (northwest interior corner of the 521 SE Taylor Street building), and SB16 (northeast interior corner of SE Grand Avenue 7-Eleven). In addition to the high concentrations of Gx relative to those detected elsewhere on Site, the impacted soil was generally encountered at slightly shallower depths (4.5' bgs in SB24). Impacted soils in the MW5 boring were encountered continuously from 7.0 feet bgs to the SWI. These borings, as well as SB1/1b advanced by Chugwater in 2013, are located near the approximate location of the former dry cleaner area.

This area of the Site appears to be the source of the historical release of dry-cleaning solvents to soil and

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groundwater.

Outside the suspected source area, the plume is concentrated from approximately 7.0 feet bgs to depths of 13.0 – 18.0 feet bgs based upon field screening and soil sample analytical data. Gx concentrations encountered were generally lower, and vertical delineation depths decreased as lateral distance from the suspected source increased. The main body of the plume appears to originate from the suspected source and extends west partially under SE Grand Avenue at a depth of greater than 7.0 feet bgs. Additionally, dispersion of the main body of the soil plume underneath the SE Grand Avenue 7-Eleven convenience store has occurred.

Impacted soils were not encountered in borings advanced in the northeast portion of the Site parking area (Chugwater SB2-SB6, Point Source MW1-MW2) at depths of up to 15.0 feet and 30.0 feet bgs respectively. Impacted soil was not observed or detected in a boring (SB25) located to the southeast of the suspected source at a depth of 14.0 feet bgs, nor was it encountered in borings (SB15, SB17, SB21) advanced in the SE Grand 7-Eleven at depths of up to 16.0 feet bgs.

In addition to the "main body" of the plume described above; down and cross-gradient transport of dry cleaning solvents has occurred as a result of leaching to groundwater. In several borings advanced to groundwater, a narrow smear zone of contamination was observed at the SWI. Concentrations of 673 mg/kg was detected in a SWI sample collected on the west property line during the installation of MW4, and 2,060 mg/kg was detected in SB28. SB28 represents the highest concentration of soil contamination observed at the SWI and appears to be located directly downgradient of the suspected source according to the direction of groundwater flow determined during the investigation. 194 mg/kg TPH-Gx was observed at the SWI in MW3 (cross-gradient). TPH-Gx was not detected at the SWI in MW2 (up-gradient), or MW1 (up/cross-gradient).

Point Source estimates the quantity of solvent impacted soil present in this area to be approximately 7,110 cubic yards. This calculation was based on a truncated cone of impacted material from 7.0 to 18.0 feet that originates near the presumed source and extends beyond MW4 on the west property line. Plume symmetry was assumed for estimating the northern extent based on lateral dispersion that was documented in interior borings advanced on the south adjoining properties. A continuous cylinder of impacted material was assumed to extend from 4.5 ft. bgs (based upon boring SB24) to the SWI (based upon field screening of SB2/2b [Chugwater] and MW5). Additionally, a 1 foot thick elliptical lens over an aerial extent of 55,000 square feet was calculated to approximate the volume of impacted soil present at the SWI smear zone.

VOC concentrations followed a similar trend, with the highest detections presented in borings from the presumed source. The estimated extent of the impacted soil plume is depicted in **Figures 4A** and **4B**.

Chloroform was observed at low levels in an isolated area of the west side of the Site building basement from soil samples collected in 2022.

5.3.2 Groundwater

The highest concentrations of TPH-Gx in groundwater were historically detected near the suspected source of the release. In 2013, 2,200 ug/L was detected in sample SB2B-W1 (Chugwater), and 1,460 was detected in W26 (located approximately 15ft NE of SB2B) in 2018.

Moderate concentrations of TPH-Gx (720 to 1,100 ug/L) were detected in MW4, which was located on the west

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property line of the Site. 833 ug/L was detected in W29 which was located in the southwest corner of the SE Grand 7-Eleven property. TPH-Gx was not detected in four consecutive quarters of groundwater monitoring in MW1 (north property line of the Site), MW2 (east property line of the Site), MW3 (located on the east side of the SE Grand 7-Eleven parking lot) or W27 (south property line of 7-Eleven site).

A downward trend in TPH-Gx was demonstrated from 2013 to March 2023. MW5 was installed beneath the suspected source in close proximity to SB2B-W1 and produced four consecutive monitoring events with no detections for VOCs or TPH-Gx. TPH-Gx was not detected in down/cross gradient well MW6 (installed adjacent to the W29 sample location) during the October 2020 or March 2023 monitoring events. TPH-Gx concentrations in down gradient well MW4 fluctuated from October 2019 to October 2020, however the overall trend was downward with a peak concentration of 1,100 ug/L and a final concentration of 720 ug/L. The TPH-Gx impacted groundwater plume is depicted on **Figure 5A** utilizing data from the final (March 2023) groundwater monitoring event.

VOCs generally followed a similar pattern with concentrations trending downward over time, and with distance from the presumed source. PCE is the exception, with concentrations increasing slightly over time in several monitoring wells during the quarterly monitoring events, however the concentrations are much lower than the 53 ug/L recorded in SB2B-W1 in 2013. The presence of PCE in several up/cross gradient wells suggests the possibility of comingling with an off-site source of PCE-impacted groundwater.

5.3.3 Vapor

Stoddard solvent as quantified by Gasoline-range Organics (GRO) was encountered in a single 2019 soil-gas vapor sample collected above the presumed source (SV1) at a concentration of 1,500,000 ug/m^3. GRO was not encountered in an October 2020 recollect of this sample (SV1b) at the same location.

GRO was not encountered in three additional onsite soil-gas samples collected in November 2020 which included a downgradient sample (SV2b), and two upgradient samples located in the Site parking lot (SV6, and SV7). Additionally, GRO was not encountered in two sub-slab vapor samples collected beneath the Site building basement in 2019 (SS1) and November 2020 (SV2b). GRO was detected below all applicable RBCs in soil vapor samples SV8 and SV10 beneath the Site building basement in 2022.

Three off-site sub-slab vapor samples collected in the SE Grand Avenue 7-Eleven storeroom in 2017 (SS2) and 2018 (SV4 and SV5) were non-detect for GRO, as was a soil-gas sample collected in the 7-Eleven parking lot (SV3).

Multiple VOCs were detected from 2019 to 2021 at concentrations that exceeded vapor intrusion RBCs in samples collected above the presumed source (SV1, SV1b), above the main body of the soil plume described in section 7.1.1 (SV2b), beneath the building slab (SV3b), and upgradient of the suspected source in the Site parking lot (SVB6).

Trace concentrations of VOCs were detected below RBCs in the off-site 7-Eleven samples described above, as well as a number of onsite samples. This includes sub-slab sample SS1, located in the east portion of the basement, and SV7 located in the center of the Site parking lot east of the building.

5.3.4 Indoor and Ambient Air

Three rounds of indoor and ambient air sampling performed in December 2020, January 2021, and March 2022

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demonstrated the presence of GRO, as well as VOCs including chloroform and benzene in the basement and ground floor air of the Site building. 120 ug/m^3 GRO was detected in two 8-hour air samples collected in the east (AA2) and west (AA1) sides of the basement. In addition to GRO, benzene was detected at 0.82 ug/m^3 in AA1, and Chloroform was detected in AA2 at 3.9 ug/m^3. Various VOCs were also detected in both samples at concentrations that did not exceed RBCs.

The second round of indoor/ambient testing verified the presence of elevated concentrations of chloroform in the building air. Concentrations up to 2.3 ug/m^3 were detected in the basement in the east of two office units (AA7), and 2.9 ug/m^3 in the ground floor salon.

GRO and VOCs were not detected in either of the two outdoor ambient samples (AA3 and AA4), with the exception of a 0.1 ug/m^3 detection for chloroform in the January 2021 ambient sample (AA4).

The third round of indoor air testing revealed the highest recorded concentration of Chloroform to date in the air medium–20 ug/m^3—in sample AA9. Carbon tetrachloride was detected in the same sample above all applicable RBCs at a concentration of 2.7 ug/m^3.

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6.0 EXPOSURE PATHWAY SUMMARY

6.1 Exposures Pathways for Soil

The following summarizes the exposure pathways for soil.

- Surface Soil Ingestion, Dermal Contact, and Inhalation – This exposure pathway is considered incomplete for all current and future receptors, as impacted soil was not encountered at depths of less than 3.0 feet bgs.

- Subsurface Soil Ingestion, Dermal Contact, and Inhalation – This exposure pathway is considered incomplete for all current and future occupational and residential receptors, as impacted soils are not accessible. This pathway is considered potentially complete for excavation workers, as impacted soils may become accessible during future utility work.

- Volatilization to Outdoor Air – This pathway is considered potentially complete for all current and future receptors as impacted soils are present.

- Vapor Intrusion into Buildings – This pathway is considered potentially complete for all current and future receptors as impacted soils are present.

- Leaching to Groundwater – This pathway is considered complete for all current and future occupational and residential receptor scenarios, as impacted groundwater is present.

6.2 Exposures Pathways for Groundwater

The following summarizes the exposure pathways for groundwater.

- Ingestion and Inhalation from Tap Water – This exposure pathway is considered incomplete based upon the results of the Beneficial Land and Water Use Determination (BLWUD), detailed in **Section 8.0**.

- Volatilization to Outdoor Air – This pathway is considered potentially complete for all current and future occupational and residential receptor scenarios, as impacted groundwater is present.

- Vapor Intrusion into Buildings – This pathway is considered potentially complete for all current and future occupational and residential receptor scenarios, as impacted groundwater is present.

- Groundwater in Excavation – This pathway is considered incomplete for future construction and excavation workers, as groundwater contact is unlikely given the depth of the water table (30 feet bgs).

6.3 Exposures Pathways for Soil Vapor

The following summarizes the exposure pathways for soil vapor.

- Vapor Intrusion into Buildings – This pathway is considered complete for all current and future receptor scenarios, as impacted soil-gas vapor is present.

6.4 Exposures Pathways for Air

The following summarizes the exposure pathways for indoor air.

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- Inhalation of Indoor Air – This pathway is considered complete for all current and future receptor scenarios, as impacted indoor air is present.

- Inhalation of Outdoor Air – This pathway is considered incomplete for all current and future receptor scenarios, as impacted outdoor air is not present.

7.0 CONTAMINANT FATE AND TRANSPORT

7.1 Contaminant Transport

Stoddard Solvent impacts to soil have been shown to have migrated to the west, south, and southeast via groundwater, following local groundwater flow and topography, visually represented in **Figures 4A** and **4B**. Observed groundwater impacts have followed a similar directional trend, represented in **Figures 5A** and **5B**. Minimal contaminant transport of Stoddard Solvent and its related constituents have been observed in soil gas/sub-slab vapor.

Chloroform and carbon tetrachloride contamination of Site soil gas has been shown to have been transported along the Site sanitary sewer line as a preferential pathway. Point Source finds it plausible that the line could be a potential source of gaseous chloroform and carbon tetrachloride contamination, along with municipally treated water intrusion as an assumed source. These VOC contaminants have been shown to migrate from the soil gas to the indoor air of the Site building, sorbing as well to adjacent soils, visually represented in the basement soil sample location diagram included as **Figure 4C**.

7.2 Contaminant Degradation/Persistence

Stoddard Solvent impact has shown to have degraded in MW4 since the first instance of sampling in October 2019 returned detections of 941 ug/L, to the most recent sampling event in March 2023 returning 720 ug/L of Stoddard Solvent.

The degradation of Chloroform and Carbon Tetrachloride in soil vapor has accelerated due to the introduction of a sub-slab depressurization system (SSDS) in March 2023. The construction of the system, as well as verification sampling of soil vapor confirming degradation of these COIs, is detailed in **Section 12**.

7.3 Preliminary Hot Spot Determination

ODEQ defines “Hot Spots” as follows:

Contaminants present in concentrations exceeding risk-based concentrations corresponding to:

- 100 times the acceptable risk level for human exposure to each individual carcinogen;
- 10 times the acceptable risk level for human exposure to each individual non-carcinogen;
- 10 times the acceptable risk level for individual ecological receptors or populations of ecological receptors to each individual hazardous substance.

The contaminants must be reasonably likely to migrate to such an extent that the conditions specified above would be created or cannot be reliably containable.

Following ODEQ’s definition of a hot spot, two such areas have been identified at the Site. One hot spot is contained in the soil beneath the Site, the south adjoining properties, and the west adjoining right of way. The second hot spot is in the soil gas underlying the Site building’s basement slab.

The soil hotspot contains concentrations of Stoddard Solvent and volatile organic constituents of the solvent including benzene, EDC, naphthalene, and TCE:

- Benzene at 93 mg/kg in boring SB2 at 8.0 feet bgs is over 100 times the leaching to groundwater RBC for future urban residential and current/future occupational receptors;
- EDC at 2.5 mg/kg in the same boring and depth is over 100 times the leaching to groundwater RBC for future urban residential and current/future occupational receptors;
- Naphthalene at 37.4 mg/kg in boring SB24 at 4.5 feet bgs is over 100 times the leaching to groundwater RBC for future urban residential and current/future occupational receptors;
- TCE at 12.9 mg/kg in boring SB23 at 12.0 feet bgs is over 100 times the leaching to groundwater RBC for future urban residential and current/future occupational receptors.

The soil gas hotspot contains concentrations of chloroform at the highest detected level of 50,000 ug/m^3, over 100 times the soil gas vapor intrusion RBC for future urban residential receptors.

Each of these hot spots have been laterally defined by samples collected nearby, confirming concentrations less than 100 times applicable RBCs.

7.4 Conceptual Site Model (CSM)

A Conceptual Site Model (CSM) defines the potentially complete exposure pathways through which human or ecological receptors may be exposed to site contaminants under current or anticipated future land use conditions. A discussion of Site geology and hydrogeology, potential contaminant sources, and the nature and extent of contamination are presented above. An evaluation of current and reasonably likely future receptor-exposure pathway analysis is presented below.

The Summary of the CSM, which includes the reasoning for accepting or rejecting exposure scenarios, is presented below and attached as **Figure 9.**

SUMMARY OF CSM			
Pathway	**Receptor**	**Applicable RBC**	**Basis for selection/exclusion**
SOIL			
Ingestion, Dermal Contact, and Inhalation of Surface Soils	Residential (Future)	No	Impacted soil was not encountered at depths of less than 3.0 feet bgs.
	Urban Residential (Future)	No	
	Occupational (Future)	No	
	Construction worker (Current and Future)	No	
	Excavation Worker (Current and Future)	No	
Ingestion, Dermal Contact, and Inhalation of Subsurface Soils	Residential (Future)	No	Impacted soils are not accessible.
	Urban Residential (Future)	No	

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SUMMARY OF CSM			
Pathway	**Receptor**	**Applicable RBC**	**Basis for selection/exclusion**
	Occupational (Future)	No	
	Construction worker (Current and Future)	Yes	Impacted soils may become accessible during future utility work.
	Excavation Worker (Current and Future)	Yes	
Volatilization to Outdoor Air	Residential (Future)	Yes	Impacted soils are present.
	Urban Residential (Future)	Yes	
	Occupational (Current and Future)	Yes	
Vapor Intrusion into Buildings	Residential (Future)	Yes	Impacted soils are present.
	Urban Residential (Future)	Yes	
	Occupational (Current and Future)	Yes	
Leaching to Groundwater	Residential (Future)	Yes	Impacted groundwater is present.
	Urban Residential (Future)	Yes	
	Occupational (Current and Future)	Yes	
GROUNDWATER			
Ingestion and Inhalation from Tapwater	Residential (Future)	No	No beneficial use of groundwater has been demonstrated in the LOF.
	Urban Residential (Future)	No	
	Occupational (Current and Future)	No	
Volatilization to Outdoor Air	Residential (Future)	Yes	Impacted groundwater is present.
	Urban Residential (Future)	Yes	
	Occupational (Current and Future)	Yes	
Vapor Intrusion into Buildings	Residential (Future)	Yes	Impacted groundwater is present.
	Urban Residential (Future)	Yes	
	Occupational	Yes	

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SUMMARY OF CSM			
Pathway	**Receptor**	**Applicable RBC**	**Basis for selection/exclusion**
	(Current and Future)		
Groundwater in Excavation	Construction and excavation workers (Future)	No	**Groundwater contact is unlikely given the depth of the water table (30 feet bgs).**

7.5 Locality of Facility

The Locality of Facility (LOF) is defined by ODEQ as any point where human or ecological receptors may reasonably come into contact with site-related contaminants. Point Source assumes that the LOF extends to an area bound by the Site boundaries to the north and east, the adjoining properties (1024 SE Grand Ave/TL 1S1E02BC1200 & 521 SE Taylor St/TL 1S1E02BC01100) to the south, and to the west by a roadway (SE Grand Avenue).

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8.0 LAND AND WATER USE DETERMINATIONS

8.1 Current and Future Land & Water Use

Summary of Land Use

The current zoning of the Site and 1024 SE Grand Ave (South adjoining property) is EX (Central Employment). According to the Portland Bureau of Development Services document "Development Standards in the Employment and Industrial Zones, Ch. 33.130" (August 10, 2020 revision) the Central Employment (EX) zone is intended for industrial and commercial uses which need a central location. The zone allows a mix of commercial uses and is intended for areas in the city center that have predominantly industrial type development. The emphasis of this zone is on commercial, and employment uses, but residential uses are also allowed. Residential uses are not intended to predominate or set development standards for the zone. The development standards are intended to allow new development which is similar in character to existing development.

The current zoning of 521 SE Taylor Street (Southeast adjoining property) is General Industrial 1 (IG1). IG1 zoning provides areas where most industrial uses may be located, while other uses are restricted to prevent potential conflicts and to preserve land for industry. The development standards for each zone are intended to allow new development which is similar in character to existing development. The intent is to promote viable and attractive industrial areas.

Current use of the Site building is commercial only (offices and retail). Based on the BLWUD, development of the Site for commercial (current use) and urban residential use is allowed.

Summary of Beneficial Uses of Water

The Site and surrounding properties are all provided water by the City of Portland. According to the 2020 City of Portland Water Quality Report, Portland's water system is supplied from two sources – the Bull Run Watershed and the Columbia South Shore Well Field. Water flows from the Bull Run Watershed held by reservoirs and concrete diversion dams to the Headworks Water Treatment Facility, where it is treated and sent to Powell Butte Underground Reservoirs merging with the supply from Columbia South Shore Well Field.

Based on our review of the available data information from the City of Portland, the Site and immediately surrounding areas are connected to the municipal water supply system.

The Site (TL 1S1E02BC 1300) is located in the SW ¼ of the NW ¼ of Section 2, T.1S, R.1E. Point Source performed a search using the Oregon Water Resources Department (OWRD) Well Report Mapping tool. Research of well logs filed with the OWRD revealed no drinking water supply wells within 1000 feet of the Site. Therefore no copies of well logs are included.

Well ID	Land Owner	Address of Well	Distance from Site (ft)	Use	Depth of First Water (ft)
223309	WESTERN DAIRY	Unknown, SW ¼ of the NW ¼ of Section 2, T.1S, R.1E	829	Industrial	N/A
223312	NORTHWESTERN ICE AND COLD STORAGE	Unknown, NE ¼ of the NE ¼ of Section 3, T.1S, R.1E	950	Industrial	N/A
470570	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	18
470571	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	18

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Well ID	Land Owner	Address of Well	Distance from Site (ft)	Use	Depth of First Water (ft)
470572	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	18
471167	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	N/A
471168	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	N/A
471169	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	N/A
471170	CITY OF PORTLAND	6th ST & SE ALDER ST	868	Dewatering	N/A

Point Source inspected adjoining properties during the investigation and observed water meters that indicate connection to the municipal drinking water supply for all buildings located on adjoining properties.

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9.0 RISK ASSESSMENT

9.1 Human Health Risk Assessment

Potential receptors are those individuals who might likely be exposed to the COIs under current and reasonably likely future land-use conditions. Current land use at the site and surrounding areas is zoned EX and IG1, which allow for light industrial, mixed-use commercial and urban residential uses. Future development for these properties is expected to be for industrial, commercial, retail, and urban residential purposes based on the zoning. Current and potential human receptors that have been identified in the risk-based screening include the following:

- Adults in current and future occupational scenario;
- Adults and children in future urban residential scenario; and,
- Adults in the future construction/excavation worker scenario.

A summary of COPCs that exceed RBCs for the applicable exposure pathways is presented below. Analytical results were compared to ODEQ RBCs (May 2018). TPH-Gx as Stoddard Solvent were compared to Site-Specific RBCs prepared by Point Source.

CONTAMINANTS OF POTENTIAL CONCERN (COPCs)			
COPC	**Medium**	**Pathway**	**Receptor**
TPH-Gx	Soil	Soil Ingestion, Dermal Contact, Inhalation	Future construction workers
		Volatilization to Outdoor Air	Future urban residential receptors
		Vapor Intrusion into Buildings	Future urban residential receptors
		Leaching to Groundwater	Future urban residential receptors
	Soil-gas	Inhalation	Current occupational and future urban residential receptors
	Air	Inhalation	Future urban residential receptors
Carbon Tetrachloride	Soil-gas	Inhalation	Current occupational and future urban residential receptors
Chloroform	Soil	Vapor Intrusion into Buildings	Current occupational and future urban residential receptors
		Leaching to Groundwater	Current occupational and future urban residential receptors
	Soil-gas	Inhalation	Current occupational and future urban residential receptors
	Air	Inhalation	Current occupational and future urban residential receptors
Benzene	Soil	Volatilization to Outdoor Air	Current occupational and future urban residential receptors

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CONTAMINANTS OF POTENTIAL CONCERN (COPCs)			
COPC	**Medium**	**Pathway**	**Receptor**
		Vapor Intrusion into Buildings	Current occupational and future urban residential receptors
		Leaching to Groundwater	Current occupational and future urban residential receptors.
	Soil-gas	Inhalation	Future urban residential receptors.
	Air	Inhalation	Future urban residential receptors
EDC	Soil	Vapor Intrusion into Buildings	Current occupational and future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.
Ethylbenzene	Soil	Vapor Intrusion into Buildings	Current occupational and future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.
	Soil-gas	Inhalation	Future urban residential receptors.
Naphthalene	Soil	Volatilization to Outdoor Air	Future urban residential receptors.
		Vapor Intrusion into Buildings	Future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.
PCE	Soil	Vapor Intrusion into Buildings	Future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.
TCE	Soil	Vapor Intrusion into Buildings	Current occupational and future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.
	Soil-gas	Inhalation	Future urban residential receptors.
1,2,4-TMB	Soil	Vapor Intrusion into Buildings	Future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.
1,3,5-TMB	Soil	Vapor Intrusion into Buildings	Future urban residential receptors.
		Leaching to Groundwater	Current occupational and future urban residential receptors.

9.1.1 Soil

COPCs detected in soil exceed the following RBCs.

- TPH-Gx in soil concentrations exceed the Soil Ingestion, Dermal Contact, Inhalation RBCs for future construction worker receptors.

  This pathway is considered potentially complete. If future development of the Site results in disturbance of the impacted soil plume, it is recommended that the work be overseen by a qualified environmental contractor to ensure that conditions are protective of worker safety, and that impacted soils are properly managed. It is recommended that a Contaminated Media Management Plan (CMMP) (included as Appendix H) be developed prior to any future construction or excavation work on the Site that may disturb the soil plume in accordance with deed restrictions prepared for the three Site taxlots as per ODEQ's July 2021 memo.

- TPH-Gx, Benzene, and Naphthalene exceed the Volatilization to Outdoor Air RBCs for one or more applicable receptor scenario.

  This pathway is considered incomplete based upon two ambient air sampling events in 2020 and 2021. These compounds were not detected in outdoor, ambient air samples placed near the suspected source of the plume.

- EDC, Ethylbenzene, Naphthalene, PCE, TCE, 124-TMB, and 135-TMB exceed the Vapor Intrusion into Buildings RBCs for one or more applicable receptor scenario.

  This pathway is considered complete as these compounds were detected in sub-slab and soil-gas samples, but exposure has been ruled out based upon the results of indoor air testing.

- TPH-Gx, Chloroform, Benzene, EDC, Ethylbenzene, Naphthalene, PCE, TCE, 135-TMB and 124-TMB exceed the Leaching to Groundwater RBCs for one or more applicable receptor scenario.

  This pathway is considered complete as these compounds were detected in groundwater, however this pathway has been ruled out as a route of exposure as there is no beneficial use of groundwater in the Site vicinity based upon the results of the BLWUD, and no other COPCs were identified in groundwater.

- TPH-Gx, Chloroform, and Benzene exceed the Vapor Intrusion into Buildings RBCs for one or more applicable receptor scenario.

  This pathway is considered complete as these compounds were detected in soil-gas and indoor air at concentrations that exceed RBCs for the applicable exposure scenarios. These compounds and exposure pathways are discussed in more detail in section 11.3.

9.1.2 Groundwater

Groundwater has been ruled out as a route of exposure as there is no beneficial use of groundwater in the Site vicinity based upon the results of the BLWUD, and no other COPCs were identified in groundwater. No COPCs exceed the Groundwater in Excavation Direct Contact RBC for excavation workers.

9.1.3 Soil Gas and Indoor Air

COPCs detected in Soil-gas and Air exceed the following RBCs.

- Carbon Tetrachloride, Ethylbenzene, and TCE exceed the Soil Gas Vapor Intrusion RBCs for one or more applicable receptor scenario.

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This pathway is considered complete as these compounds were detected in indoor air, however the concentrations did not exceed Indoor Air Inhalation RBCs for urban residential and occupational receptors.

- TPH-Gx and Benzene exceed Soil Gas Vapor Intrusion RBCs for one or more applicable exposure scenario, and the Air Inhalation RBCs for future urban residential receptors only for Benzene.

  The vapor intrusion pathway is considered complete as these compounds were detected in indoor air. This pathway is ruled out for these compounds as only occupational receptors currently occupy the building and there are no plans for redevelopment that would add urban residential use to the Site building. It is recommended that a CMMP (included as Appendix I) be prepared prior to any future redevelopment of the Site that would add urban residential use. Any future development will require additional soil-gas or indoor air testing, and may require institutional or engineering controls to ensure urban residential receptors are not exposed to harmful vapors.

- Chloroform and Carbon Tetrachloride exceed Air Inhalation RBCs for current occupational and future urban residential receptors.

  The vapor intrusion pathway for Chloroform and Carbon Tetrachloride is complete. Three rounds of indoor air testing resulted in concentrations of Chloroform that exceeded occupational RBCs in addition to urban residential RBCs. Chloroform exceeded occupational RBCs in four samples collected in the basement, as well as a ground-floor sample with only one round of Carbon Tetrachloride exceeding occupational RBCs in the basement.

9.2 Ecological Risk Assessment

Ecological risk was assessed according to guidance outlined in "Conducting Ecological Risk Assessments" (ODEQ, September 2020). A Basic Site Information Checklist with supporting documentation is included as **Appendix F.** An aerial map is included as **Figure 10**.

No ecological zones at risk of impact from the Site release were identified.

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10.0 CLEANUP STANDARDS AND HOTSPOTS

10.1 Selection of Cleanup Standards

Cleanup standards were selected based upon the following documents:

- "Risk-based Decision Making for the Remediation of Petroleum-Contaminated Sites" prepared by the Oregon Department of Environmental Quality (ODEQ) revised May 2018.

- "Human Health Risk Assessment Guidance" prepared by the Oregon Department of Environmental Quality (ODEQ) October 2010.

Site-Specific RBCs were developed for the Site for TPH-Gx (Stoddard Solvent) concentrations according to *Method 2: Calculating Site-Specific TPH RBCs using TPH Fraction Data* in section 3.1.5.2 of "Risk Based Decision Making for Contaminated Sites" (ODEQ, September 2017 Revision). A representative soil sample (MW5-S1-9) collected from the historical hot spot of the impacted soil plume was analyzed for NWEPH/VPH, BTEX+N compounds, and for 1,2,4 and 1,3,5-trimethylbenzene.

The results are presented below.

Sample	Depth	EPH	VPH	VOCs
MW5-S1-9	9.0'	Aliphatic (C8-C10) – 1,180 Aliphatic (C10-C12) – 418 Aromatic (C8-C10) – 111 Aromatic (C10-C12) – 51.6	Aliphatic (C6-C8) – 46.8 Aliphatic (C8-C10) – 2,830 Aliphatic (C10-C12) – 2,450 Aromatic (C8-C10) – 2,780 Aromatic (C10-C12) – 2,370 Aromatic (C12-C13) – 240	Ethylbenzene – 3.19 Xylenes – 49 Naphthalene – 12.8 124 TMB – 479 135 TMB – 147 Ethylbenzene – 3.19 124 TMB – 479 135 TMB – 147

EPH/VPH, and constituent data was entered into an Excel spreadsheet provided by ODEQ for the purpose of calculating non-carcinogenic RBCs for TPH (ODEQ, November 2011 Revision). Point Source submitted the spreadsheet model to Mr. Henning Larsen, ODEQ Senior Hydrogeologist, for review prior to proceeding with the output values for the risk screening. A copy of the spreadsheet output, as well as the product data input is included as **Appendix G**. At the request of ODEQ**,** Point Source did not alter site specific toxicity or transport factors for the model.

10.2 Final Hot Spot Determination

Each of the two hot spots have been laterally defined by samples collected nearby, confirming concentrations less than 100 times applicable screening levels. A visual representation of existing soil and groundwater plumes confirming their extent is included in **Figures 4A, 4B, 5A and 5B.**

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11.0 FEASIBILITY STUDY

11.1 Development of Remedial Action Alternatives

In response to the hot spot of sub-slab soil vapor in the Site building basement and concentrations of VOCs in indoor air, Point Source in coordination with ODEQ began to develop a plan for remedial action.

The first alternative was developed in coordination with Carlin Environmental of Tustin, CA. The plan involved trenching a network of perforated lateral pipe beneath the basement floor, covering roughly the entire footprint of the basement, which would be plumbed into four actively ventilated vertical pipes installed in the four corners of the site building terminating above the roofline, i.e. a sub-slab depressurization system (SSDS). Following the installation of lateral and vertical pipes and restoration of the basement floor with concrete, the floor and exterior walls would then be sealed with a chemical treatment of similar quality to Retro-Coat™, developed by Land Science Technologies, in an attempt to further seal the concrete floor and walls from exuding contaminated vapors.

The second alternative, also developed in conjunction with Carlin Environmental, was to eschew active ventilation of sub-slab vapors and to only apply Retro-Coat™ or a similar chemical treatment to the basement floor and exterior walls.

The third alternative, a focused SSDS, was developed in coordination with Haley & Aldrich, Inc. of Portland, OR (Haley & Aldrich). The plan involved drilling two vapor extraction wells and several vapor monitoring points nearby the wells in the Site building basement. Each well would then be fitted with an active ventilation blower manifold and exhaust all vapors captured through a vertical pipe that terminates above the building roofline.

11.2 Evaluation and Recommendation of Remedial Action Alternatives

The first alternative was eliminated from consideration due to time and cost restraints. In order to have executed this plan, a great deal of finishing materials including flooring and walls would have needed to be removed and replaced. This, in addition to the great deal of time and labor it would require to trench the floor, Point Source found incommensurate with the scale of the vapor intrusion issues observed. Commercial tenants currently occupy multiple units in the basement, and this plan would necessitate their extended removal, most likely resulting in permanent relocation due to the time this remedial action alternative would have required to reach completion. For these reasons, the first alternative was eliminated from consideration.

The second alternative was eliminated from consideration due to a high perceived risk of failure of Retro-Coat™ to attenuate indoor air levels of VOCs, outweighing the also sizable cost of the treatment. Additionally, this alternative would do nothing to remediate concentrations of VOCs in the sub-slab vapor. Though Carlin Environmental recommended the treatment, without prior experience of the efficacy of Retro-Coat™, Point Source could not confidently recommend or move forward with this remedial alternative.

The third alternative, an SSDS installed in a focused area prepared in coordination with Haley & Aldrich, was ultimately selected due to its balance of cost and time considerations with perceived lower risk of failure to achieve remedial action objectives.

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12.0 REMEDIAL ACTION REPORT

12.1 Remedial Work Completed

12.1.1 Vapor Extraction and Monitoring Point Well Installation

Beginning on December 5, 2022, representatives of Point Source and Haley & Aldrich oversaw the installation of vapor extraction wells and monitoring points in the Site building basement by Cascade Environmental as the first components of the SSDS plan for the Site.

4-inch diameter cores were drilled in the concrete slab in the planned locations for wells. It was discovered during field activities that the slab is variable in thickness due to the age of the building. The locations of four wells intended to be installed in the northwest corner of the Site building basement, including one extraction well, were found to be overlaid by concrete slab exceeding 14 inches in thickness. In consideration of project time constraints and immediately available resources in the field, the four wells intended for the northwest corner were scrapped from the plan. A total of five wells—one extraction well and four vapor monitoring points—were ultimately installed in the basement. The final as-built schematic and report on the SSDS, drafted by Haley & Aldrich and stamped by a professional engineer is included as **Appendix H**. The wells were installed and constructed as follows:

- EXT-1, a vapor extraction well, was installed in the southwest corner of the basement, in close proximity to the sub-slab vapor and indoor air chloroform hotspot observed in samples SV3b and AA9. The boring was advanced using a 4-inch diameter hand auger, until refusal was met at a terminal depth of 5.16 feet bgs. 5.16 feet of 2-inch diameter Schedule 80 PVC was set downhole, including 2.0 feet of 20 mil slotted well screen. The well screen was set in an observed gravel layer to ensure optimal vapor extraction. The annular space was backfilled with well sand and granular bentonite respectively.

- MP-1, a vapor monitoring point well, was installed in the southwest corner of the basement, 4.75 feet southwest of EXT-1. The boring was advanced using a limited access direct push drill rig driving 2.25-inch diameter tooling until refusal was met at a terminal depth of 3.75 feet bgs. 3.75 feet of 1-inch diameter Schedule 40 PVC was set downhole, including 2.0 feet of 20 mil slotted well screen. The well screen was set in an observed silty sand and silty clay layer. The annular space was backfilled with well sand and granular bentonite respectively.

- MP-2, a vapor monitoring point well, was installed in the southwest corner of the basement, 15.25 feet east of EXT-1. The boring was advanced using a limited access direct push drill rig driving 2.25-inch diameter tooling until refusal was met at a terminal depth of 6.25 feet bgs. 6.25 feet of 1-inch diameter Schedule 40 PVC was set downhole, including 2.0 feet of 20 mil slotted well screen. The well screen was set in an observed silty sand layer. The annular space was backfilled with well sand and granular bentonite respectively.

- MP-3, a vapor monitoring point well, was installed in the west end of the basement, 16.0 feet north-northeast of EXT-1. The boring was advanced using a limited access direct push drill rig driving 2.25-inch diameter tooling to a terminal depth of 4.41 feet bgs. 4.41 feet of 1-inch diameter Schedule 40 PVC was set downhole, including 2.0 feet of 20 mil slotted well screen. The well screen was set in an observed sandy silt layer. The annular space was backfilled with well sand and granular bentonite respectively.

- MP-4, a vapor monitoring point well, was installed in the west end of the basement, 2.75 feet east of EXT-1. The boring was advanced using a limited access direct push drill rig driving 2.25-inch diameter tooling to a terminal depth of 2.0 feet bgs. 2.0 feet of 1-inch diameter Schedule 40 PVC was set downhole, including 1.0 feet of 20 mil slotted well screen. The well screen was set in an observed silty clay layer in order to determine whether extraction of vapors/air at appropriate flow rates from the sub-slab subgrade layer immediately underneath the building slab is feasible at an applied vacuum range that is practical for full-scale SSDS applications. The annular space was backfilled with well sand and granular bentonite respectively.

12.1.2 Exhaust System and Manifold Installation

Beginning in March 2023, Point Source oversaw the installation of above and below-ground PVC conveyance piping exhausting vapors collected from EXT-1 by Soil Solutions Environmental Services (SSES). Installation procedures and instructions were in accordance with the specifications outlined by Haley & Aldrich in their finalized schematic (**Appendix H**).

Prior to start of work, mechanical and electrical permits were filed by SSES and approved by the City of Portland. A 5.5-inch deep trench was cut out of the approximately 12-inch thick concrete slab connecting EXT-1 to the closest practical exterior wall of the Site building the exhaust pipe could be attached to. 2-inch diameter Schedule 80 PVC pipe was plumbed to the top of EXT-1, including a sample port fitted with a ball-valve. At the transition from below to above-ground conveyance piping, the pipe was converted to 4-inch diameter Schedule 80 PVC pipe. The 4-inch diameter pipe was then placed along the exterior wall until meeting the ideal point to run the piping vertically above the roofline.

The hybrid manifold with passive and active exhaust options separated by two double-union ball valves was placed in the plumbing at this point, and securely attached to the exterior wall (in the interior of the building, surrounded by the walls of an addition). An electric inline fan was placed in the chain on the active side of the manifold, with the ability to move a maximum 50 scfm of air at a static differential pressure of 20 inches of H_2O. Both sides of the manifold were fitted with vacuum gauges and sample ports as well. The vent riser pipe was then run vertically against the exterior wall through the roof of the addition on the south side of the Site building until its terminal point above the highest roofline, where it was then capped with a rubber rain cap.

The monitoring points MP-1 through MP-4 were all fitted with 1-inch diameter threaded PVC caps, sealed with gas tight thread sealant and female quick-connect fittings.

The inline fan of the SSDS system was then switched on and the valves of the manifold were turned to allow the flow of air through the active ventilation side.

12.2 Verification Sampling

In April 2023, verification soil vapor and vent riser samples were collected from the basement hotspot area. One soil gas sample was collected from the vent riser sample port, and one sub-slab vapor sample was collected to verify that VOC concentrations in the affected media had attenuated. Concentrations of Chloroform and Carbon Tetrachloride (Chloroform at 50,00 ug/m^3 and Carbon Tetrachloride at 3,700 ug/m^3 respectively in November 2020) were found to be significantly attenuated in the sub-slab vapor sample compared to previous sub-slab data in the vicinity, detected at 2,700 ug/m^3 and 61 ug/m^3 respectively. Chloroform and Carbon Tetrachloride were found in the vent riser sample at higher levels as intended to verify the efficacy of the system, at 3,300

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ug/m^3 and 290 ug/m^3 respectively.

12.3 Engineering Controls

Point Source recommends that the SSDS as installed remain in place and operational to ensure the continued protection of tenants of the Site building from impacted sub-slab vapor and indoor air.

12.4 Institutional Controls

As per ODEQ's request in their July 2021 memo to Point Source, Arcoa Partners LLC (Owner) instructed their attorney to draft deed restrictions on each of the three tax lots of the Site requiring ODEQ review and approval of a Contaminated Media Management Plan (CMMP) prior to conducting subsurface work on the Site.

Caldwell Properties, the owner of the south adjoining tax lots (occupancy by Grand Avenue 7 Eleven and Japanese Auto Repair), declined to participate in the deed restrictions prepared on behalf of Arcoa Properties by Mr. Michael Redden of Redden PC.

Mr. Kevin Dana of ODEQ was informed of this decision by Caldwell Properties by email on July 13, 2022.

Point Source assumes that extraction of groundwater for consumption will be a condition of closure.

A copy of the CMMP is included as **Appendix I**.

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13.0 RESIDUAL RISK

13.1 Residual Risk Assessment

Point Source has performed a residual risk assessment of the Site. The results of the residual risk assessment are presented in the following sections.

13.2 Protection of Human Health & the Environment

Human health and the environment will be protected at the Site with the implementation of engineering and institutional controls.

Engineering Controls implemented at the Site include the following:

- A soil vapor extraction system has been installed in the vicinity of the soil vapor hotspot observed in the southwest corner of the Site building basement. The system is designed to off-gas soil vapor containing COIs above the roofline of the Site building and mitigate the vapor intrusion pathway for onsite receptors.

Institutional Controls in the process of being implemented at the Site include the following:

- ODEQ review and approval of a Contaminated Media Management Plan (included as **Appendix I**) prior to conducting subsurface work on the Site.

Exposure pathways carried forward as complete or potentially complete as noted in **Section 9.1** are addressed by the above controls in the following means:

- The soil direct contact, ingestion, and inhalation pathway for construction worker receptors is mitigated by the implementation of a Contaminated Media Management Plan, instructing future crews performing subsurface work of areas of the Site where Personal Protective Equipment and other safety considerations apply.

- The vapor intrusion pathway for occupational receptors is controlled and mitigated by the implementation of a soil vapor extraction system in the highest area of risk in the Site building.

Upon implementation of the described institutional controls, a No Further Action Determination should be issued for the Site by ODEQ.

13.3 Inspection and Maintenance Plan

An inspection and maintenance program is not necessary for this Site at this time.

13.4 Residuals Management Plan

A Residuals Management Plan, i.e. a Contaminated Media Management Plan (CMMP) is included as **Appendix I**.

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REFERENCES

Subsurface Environmental Investigation of 1006 SE Grand Ave by Chugwater on behalf of Mr. Vince Huffstutter (Chugwater Project No. CW130201.1, dated March 12, 2013);

Phase I Environmental Site Assessment (ESA) of 1024 SE Grand Ave by Point Source Solutions on behalf of Caldwell Properties (Point Source Project No. OR160930-4, dated October 27, 2016);

Phase II ESA of 1025 SE 6th Ave by Point Source Solutions on behalf of Caldwell Properties (Point Source Project No. OR160930-1A, dated January 27, 2017

Phase II ESA of 1024 SE Grand Ave by Point Source Solutions on behalf of Caldwell Properties (Point Source Project No. OR160930-4A, dated February 21, 2017)

Risk-Based Corrective Action Determination of 1024 SE Grand Ave by Point Source Solutions on behalf of Caldwell Properties (Point Source Project No. OR160930-4A, dated May 22, 2017)

Risk-Based Corrective Action Determination of 1025 SE 6th Ave by Point Source Solutions on behalf of Caldwell Properties (Point Source Project No. OR160930-1A, dated July 20, 2017)

Additional Investigation Data of 1024 SE Grand Ave by Point Source Solutions (Point Source Project No. OR161202-3D, dated September 11, 2018)

Off-Site Contaminant Migration for Grand Avenue 7-Eleven in Portland by Oregon Department of Environmental Quality (ODEQ) (January 7, 2019)

May 2020 Project Update and Work Plan by Point Source Solutions on behalf of Arcoa Partners LLC (Point Source Project No. OR190517-3, dated May 13, 2020)

Site-Specific Risk-Based Corrective Action Determination by Point Source Solutions on behalf of Arcoa Partners LLC (Point Source Project No. OR190517-3, dated February 18, 2021)

Comments on RBCA Determination for Allyn's Cleaning & Dyeing in Portland by ODEQ, July 12, 2021

"Risk-based Decision Making for the Remediation of Petroleum-Contaminated Sites" prepared by ODEQ, revised May 2018

"Human Health Risk Assessment Guidance" prepared by ODEQ, October 2010

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FIGURES

FIGURE 1 – SITE LOCATION MAP

FIGURE 2 – TOPOGRAPHIC MAP

FIGURE 3 – SITE PLAN

FIGURE 4A – SOIL TPH SAMPLE LOCATION DIAGRAM

FIGURE 4B – SOIL VOCS SAMPLE LOCATION DIAGRAM

FIGURE 4C – BASEMENT SOIL SAMPLE LOCATION DIAGRAM

FIGURE 5A – WATER TPH SAMPLE LOCATION DIAGRAM

FIGURE 5B – WATER VOCS SAMPLE LOCATION DIAGRAM

FIGURE 6A – VAPOR SAMPLE LOCATION DIAGRAM

FIGURE 6B – BASEMENT SUBSLAB VAPOR SAMPLE LOCATION DIAGRAM

FIGURE 7 – INDOOR AIR SAMPLE LOCATION DIAGRAM

FIGURE 8A – OCTOBER 2019 GROUNDWATER ELEVATION CONTOURS

FIGURE 8B – FEBRUARY 2020 GROUNDWATER ELEVATION CONTOURS

FIGURE 8C – MAY 2020 GROUNDWATER ELEVATION CONTOURS

FIGURE 8D – OCTOBER 2020 GROUNDWATER ELEVATION CONTOURS

FIGURE 9 – CONCEPTUAL SITE MODEL

FIGURE 10 – ECOLOGICAL RISK ASSESSMENT AERIAL MAP

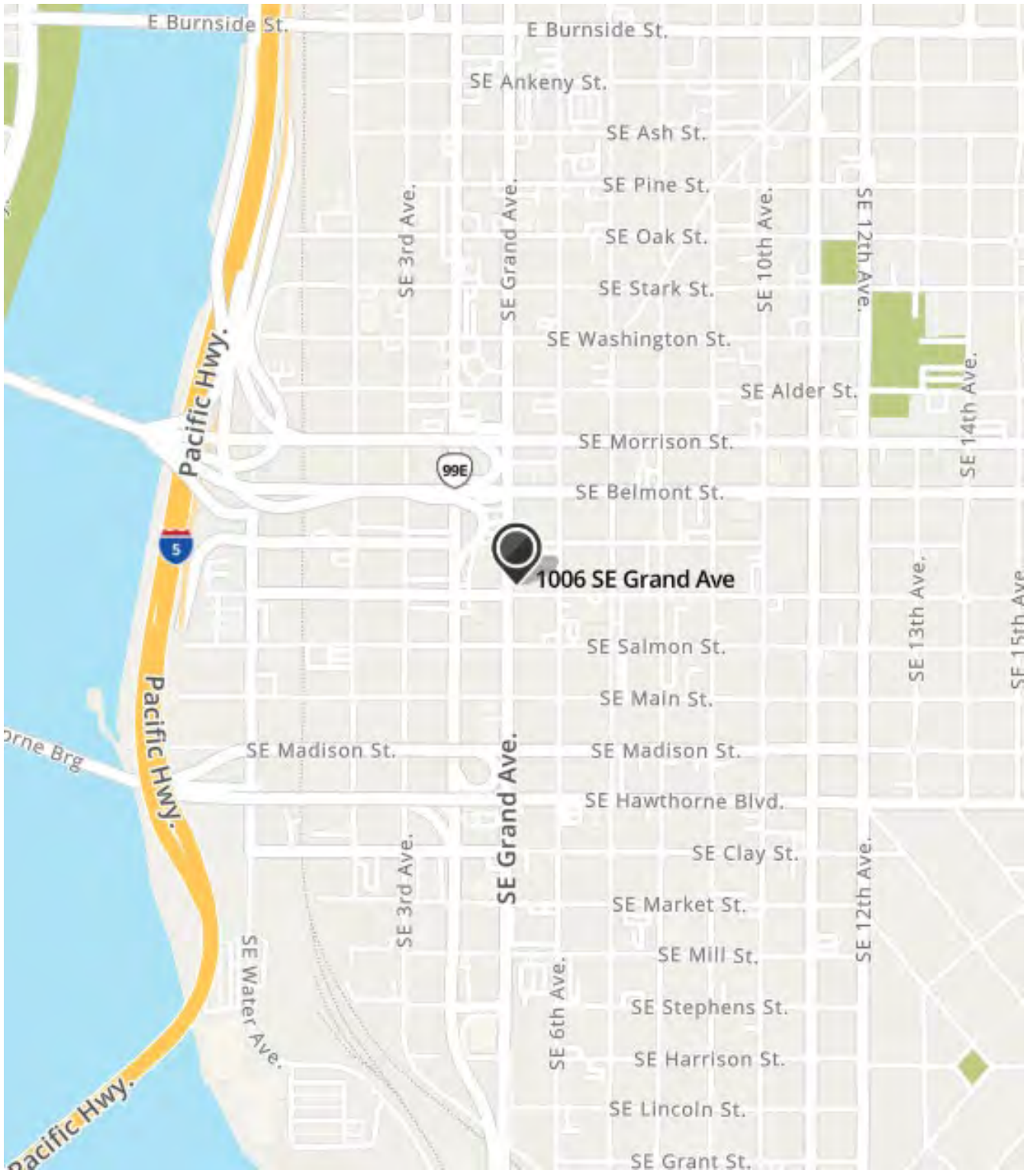

FIGURE 1 - SITE LOCATION MAP

Map from MapQuest N↑

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Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, OR 97214

Project Number: ECSI #6199

FIGURE 2 - TOPOGRAPHIC MAP

Source: USGS 7.5 Minute Topographic Map
Portland, OR Quadrangle 1984

N↑

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Project Number: ECSI #6199

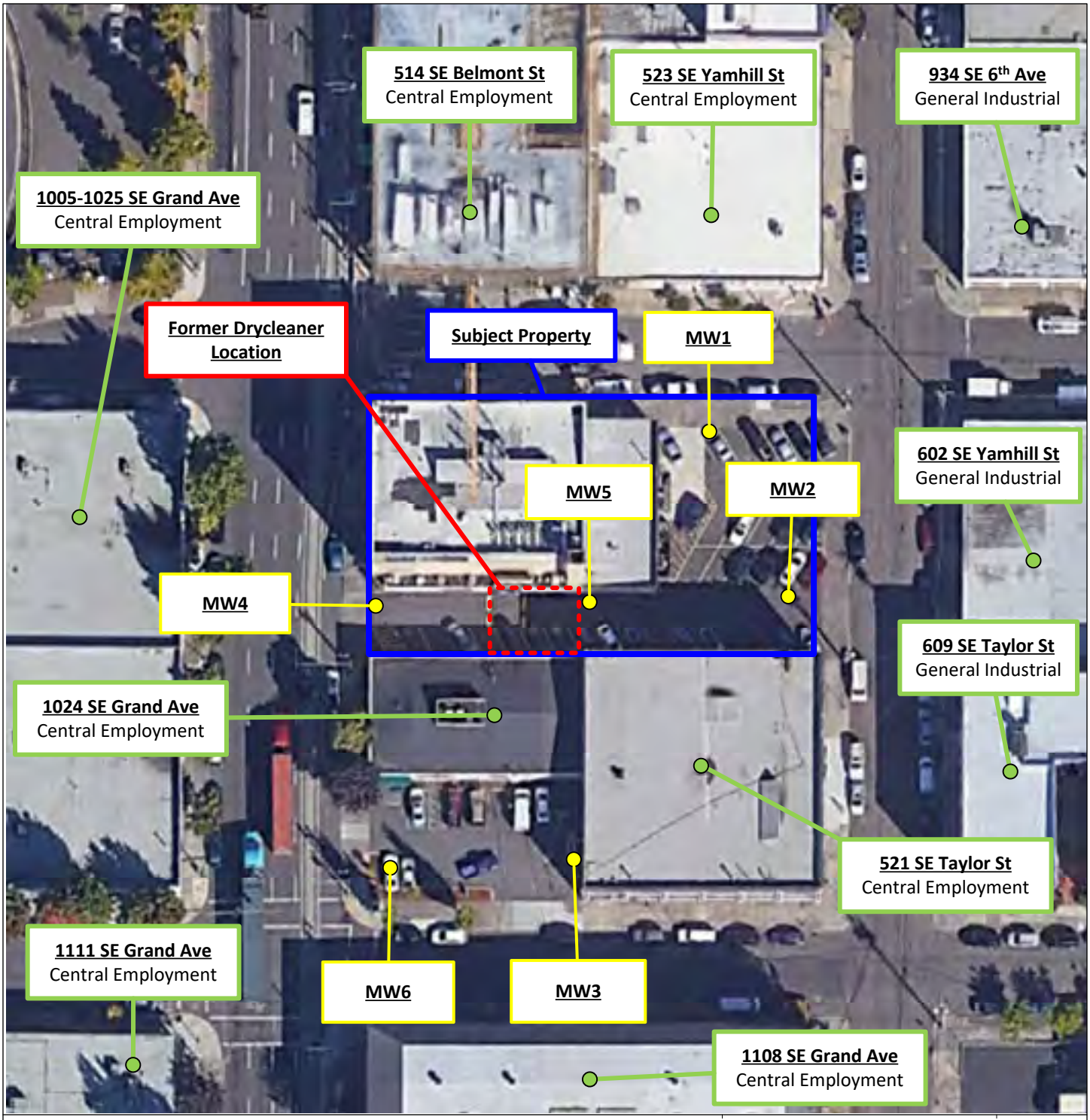

FIGURE 3 - SITE PLAN

Image From Google Earth (2018)

N

Notes:

- *Location of former drycleaner based upon historical documentation.*

Adjacent Property

Monitoring Well Location

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

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Site Name: Arcoa Building
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Project Number: ECSI #6199

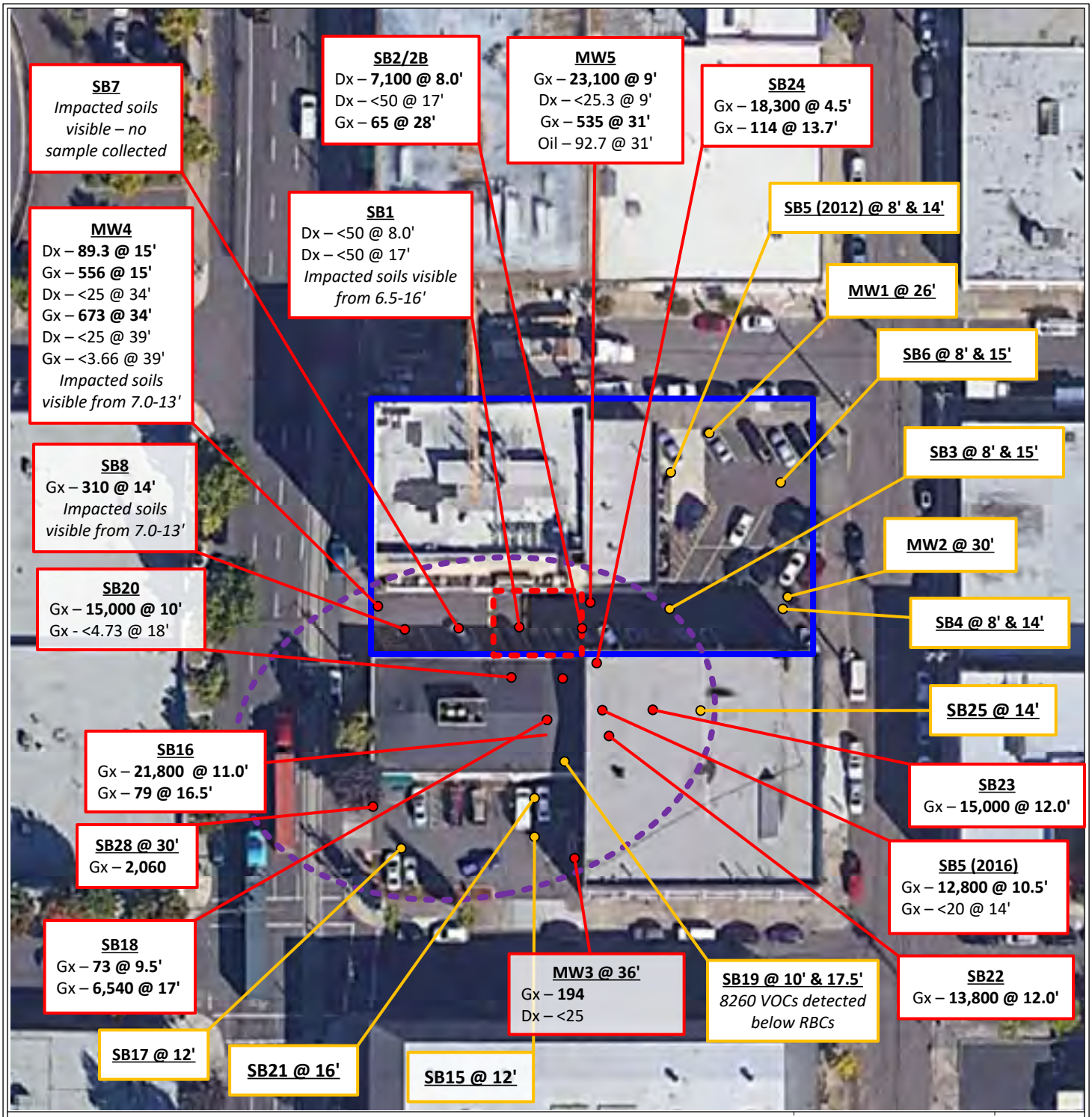

FIGURE 4A – SOIL TPH SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

N

Notes:

- *Soil Sample results in mg/Kg*
- *Location of former drycleaner based upon historical documentation.*
- *SB15 – SB28 advanced by PSS (2017-2018)*
- *SB1 – SB8 advanced by Chugwater (2013)*
- *MW1 – MW5 advanced by PSS (2019)*

Soil Sample Location

Soil Sample Location (Stoddard solvent observed/detected)

Site Boundary

Former Drycleaner Location

Estimated Impacted Soil Extent

Scale in Feet (Approximate)

100

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Site Name: Arcoa Building
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Project Number: ECSI #6199

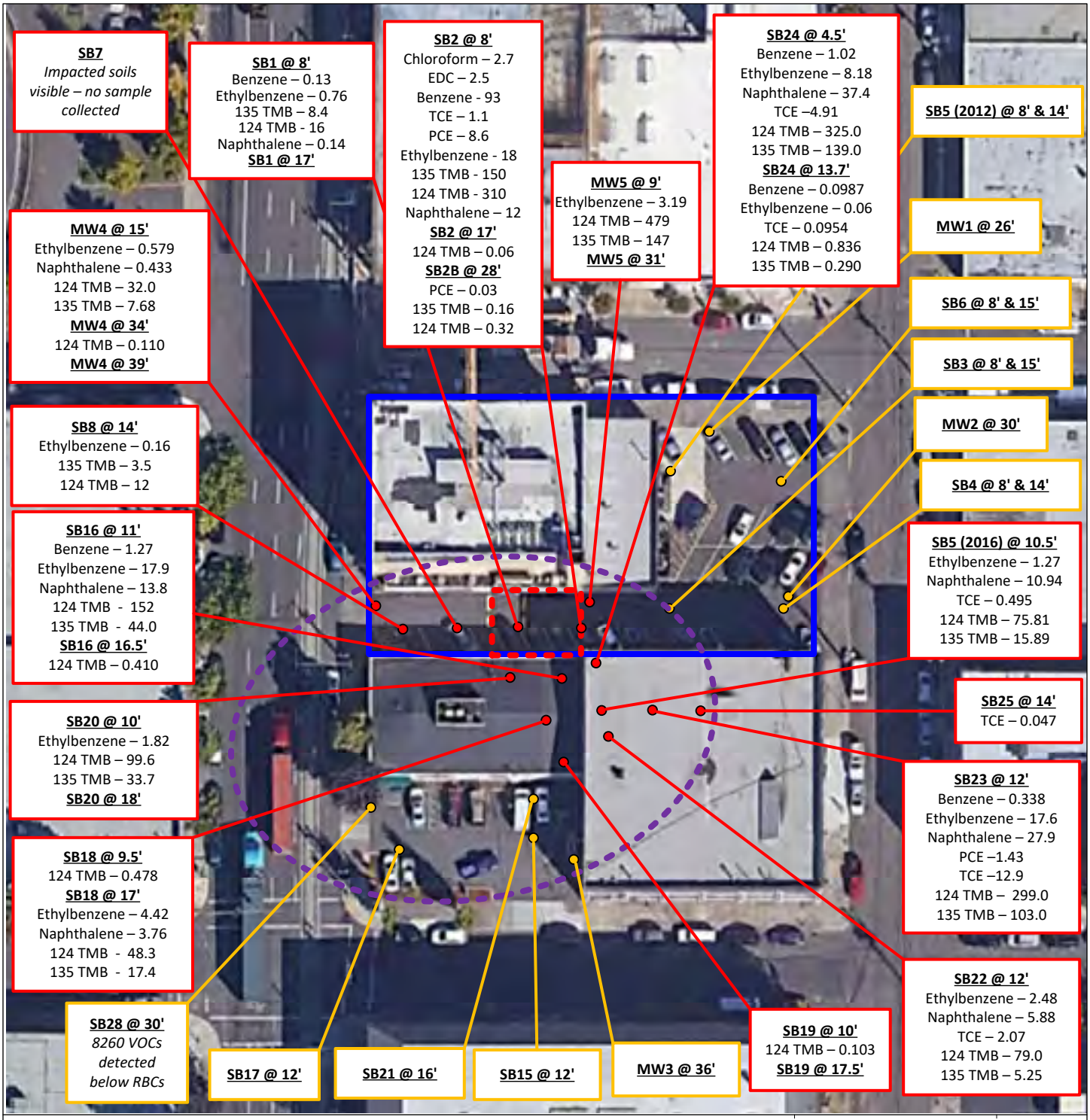

FIGURE 4B - SOIL VOCs SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

N

Notes:

- *Soil Sample results in mg/Kg*
- *Location of former drycleaner based upon historical documentation.*
- *SB1 – SB8 advanced by Chugwater (2012-2013)*
- *SB5, SB15 – SB28 advanced by PSS (2016-2018)*
- *MW1 – MW5 advanced by PSS (2019)*

Soil Sample Location

Soil Sample Location (VOCs observed/detected)

Site Boundary

Former Drycleaner Location

Estimated Impacted Soil Extent

Scale in Feet (Approximate)

100

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Site Name: Arcoa Building
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Project Number: ECSI #6199

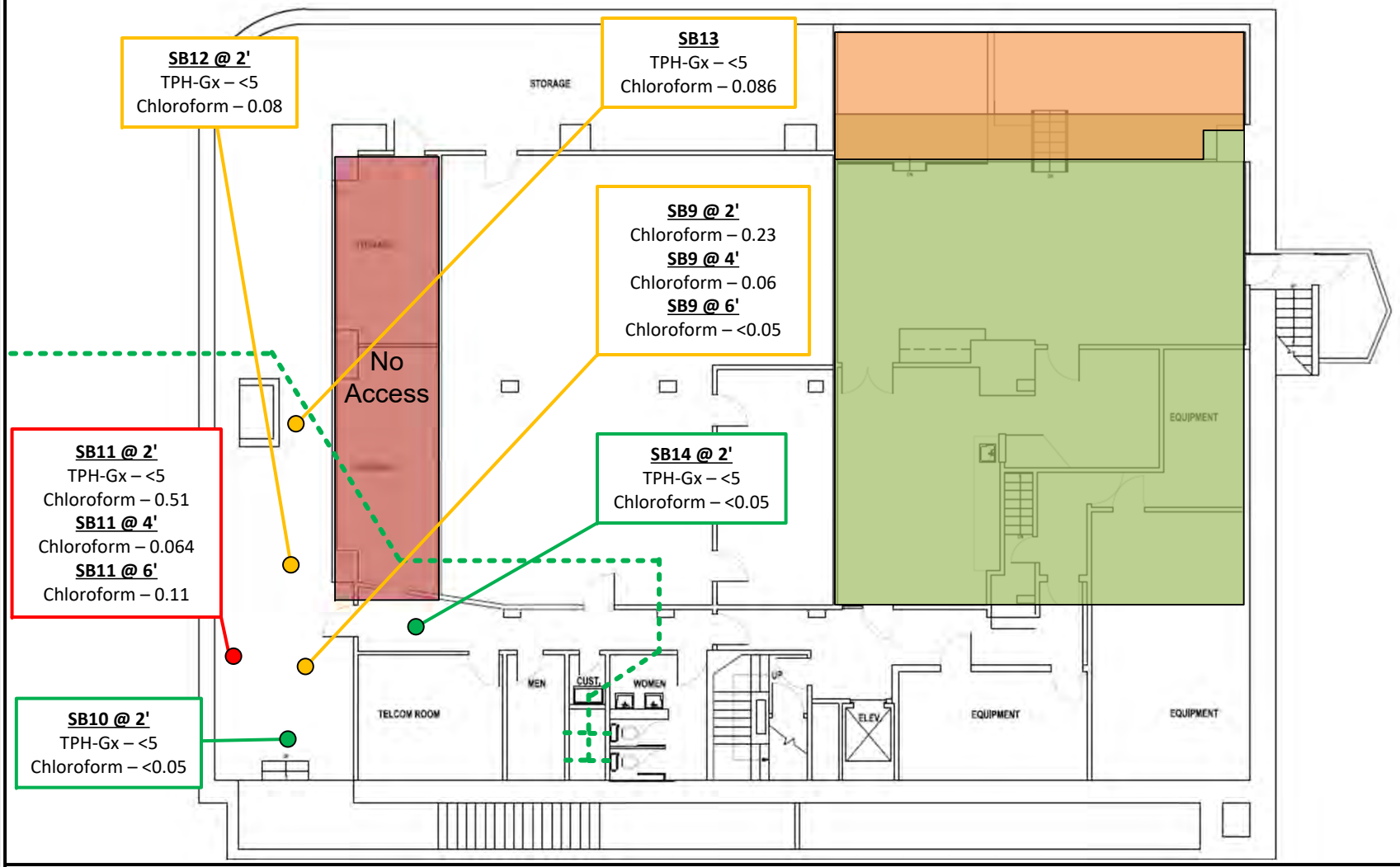

FIGURE 4C – BASEMENT SOIL SAMPLE LOCATION DIAGRAM

N↑

Notes:
- Soil sample results in mg/kg

Soil Sample (<Urban Residential)
Soil Sample (>Urban Residential)
Soil Sample (>Occupational)
Sanitary Sewer Line
Outline of Subgrade Basement
Lower Grade

Scale in Feet (Approximate)
20

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Site Name: Arcoa Building
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Project Number: ECSI #6199

FIGURE 5A - WATER TPH SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

N

Notes:

- *Water Sample results in ug/L*
- *Results depicted for TPH-Dx/Gx (stoddard solvent) only*
- *Estimate GW TPH plume based upon Oct 2020 GWM event*
- *SB2B-W1 collected by Chugwater (2013)*
- *W26 – W29 collected by PSS (2018)*
- *MW1 – MW6 installed by PSS (2019-2020)*

Water Sample Location

Monitoring Well Location

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

Estimated TPH Impacted GW Extent

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Portland, Oregon 97214

Project Number: ECSI #6199

FIGURE 5B – WATER VOCs SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

N

Notes:

- *Water Sample results in ug/L*
- *Results depicted for VOC COIs only*
- *Location of former drycleaner based upon historical documentation.*
- *SB2B-W1 collected by Chugwater (2013)*
- *W26 – W29 collected by PSS (2018)*
- *MW1 – MW6 installed by PSS (2019-2020)*

Water Sample Location

Monitoring Well Location

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

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Site Name: Arcoa Building
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Project Number: ECSI #6199

FIGURE 6A – VAPOR SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

N

Notes:

- *Soil Vapor results in ug/m3*
- *Location of former drycleaner based upon historical documentation.*

Vapor Sample Location (Sub-slab)

Vapor Sample Location (Soil-gas)

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

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Site Name: Arcoa Building
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Project Number: ECSI #6199

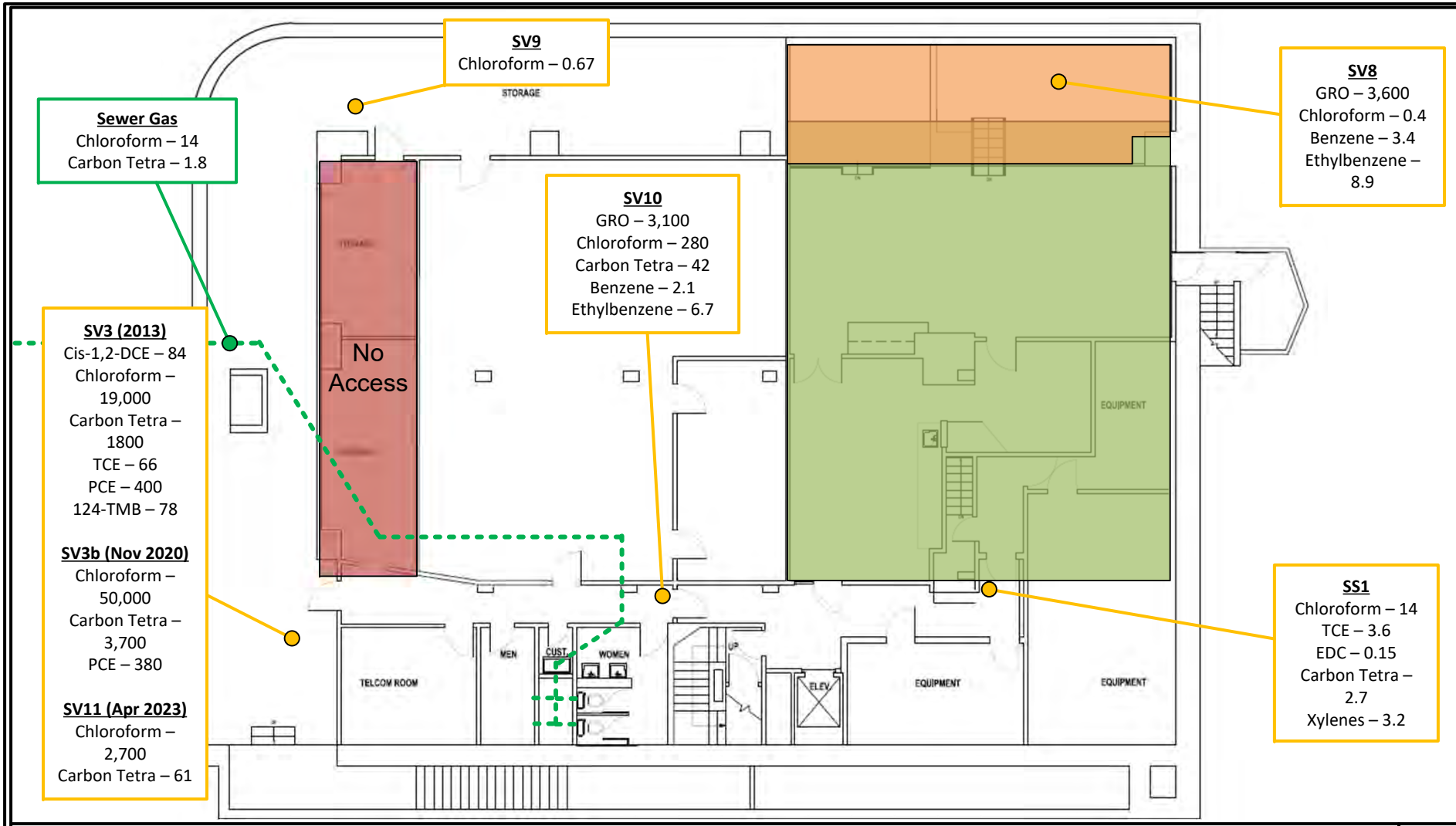

FIGURE 6B – BASEMENT SUBSLAB VAPOR SAMPLE LOCATION DIAGRAM

N↑

Notes:

- Results in ug/m3

Subslab Vapor Sample

Sewer Gas Sample from Cleanout

Sanitary Sewer Line

Outline of Subgrade Basement

Lower Grade

Scale in Feet (Approximate)

20

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Site Name: Arcoa Building
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Project Number: ECSI #6199

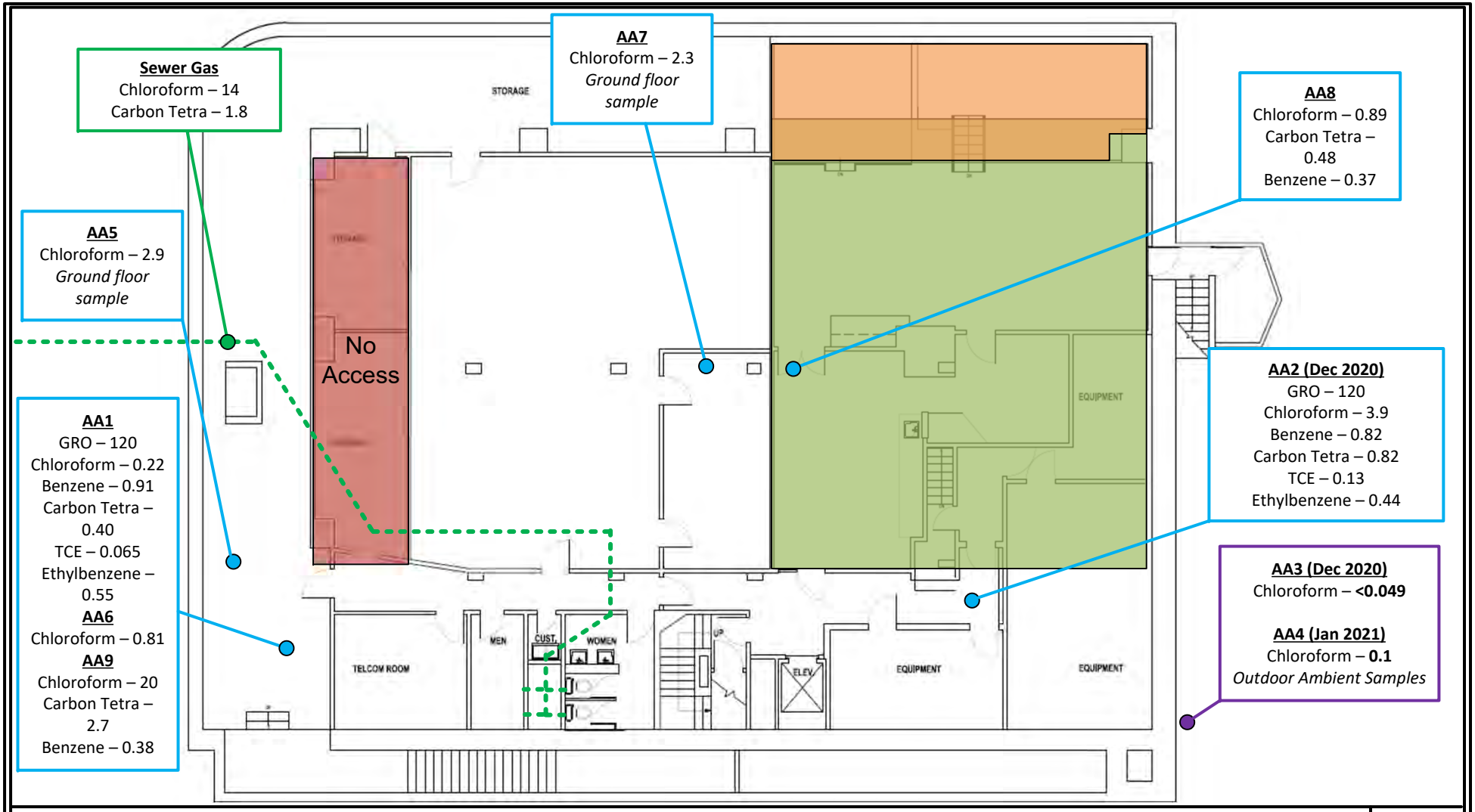

FIGURE 7 – INDOOR AIR SAMPLE LOCATION DIAGRAM

N↑

Notes:

- Results in ug/m3

Sewer Gas Sample from Cleanout

Indoor Air Sample

Sanitary Sewer Line

Outdoor Ambient Air Sample

Outline of Subgrade Basement

Lower Grade

Scale in Feet (Approximate)

20

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Site Name: Arcoa Building
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Project Number: ECSI #6199

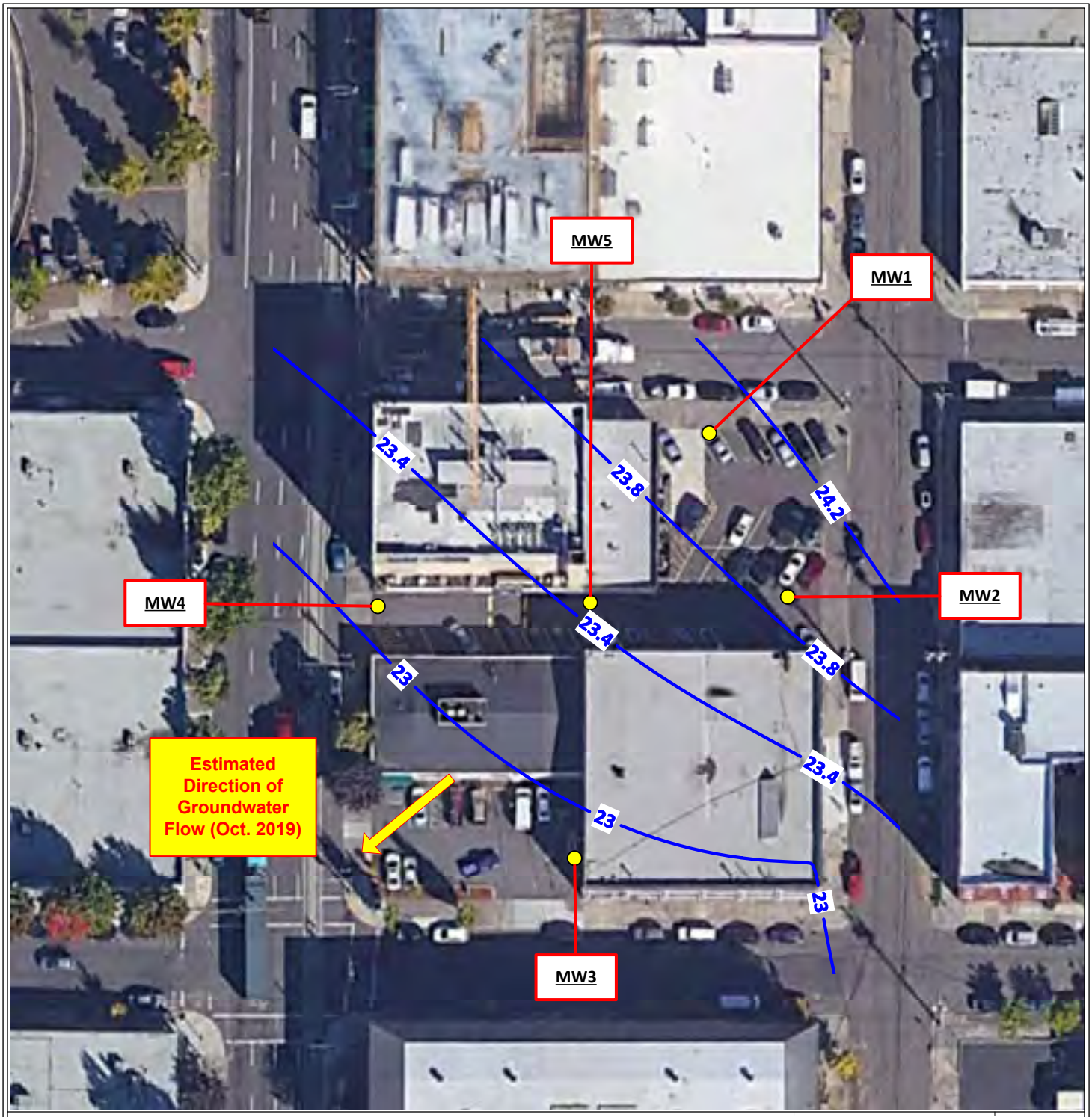

FIGURE 8A – OCT. 2019 GROUNDWATER ELEVATION CONTOURS

Image From Google Earth (2018)

N↑

Notes:

- *GW contour elevations are in reference to the COP Datum.*
- *COP Benchmark #1818, elevation 53.408 ft was utilized for establishing monitoring well TOC elevations.*

Monitoring Well Location

Scale in Feet (Approximate)

100

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Site Name: Arcoa Building
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Portland, Oregon 97214

Project Number: ECSI #6199

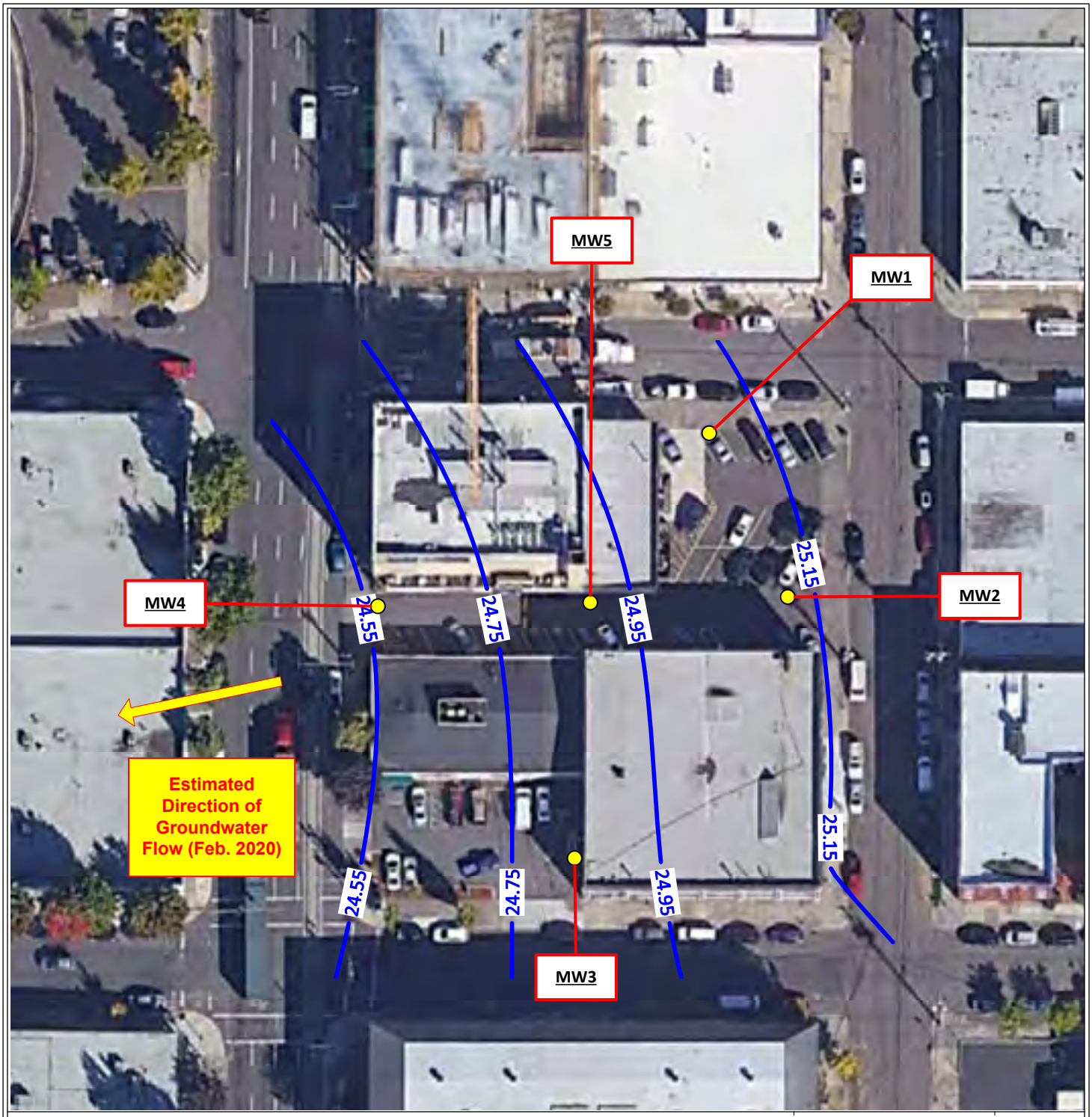


FIGURE 8B – FEB. 2020 GW ELEVATION CONTOURS

Image From Google Earth (2018)

N↑

Notes:

- *GW contour elevations are in reference to the COP Datum.*
- *COP Benchmark #1818, elevation 53.408 ft was utilized for establishing monitoring well TOC elevations.*

Monitoring Well Location

Scale in Feet (Approximate)

100

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, Oregon 97214

Project Number: ECSI #6199

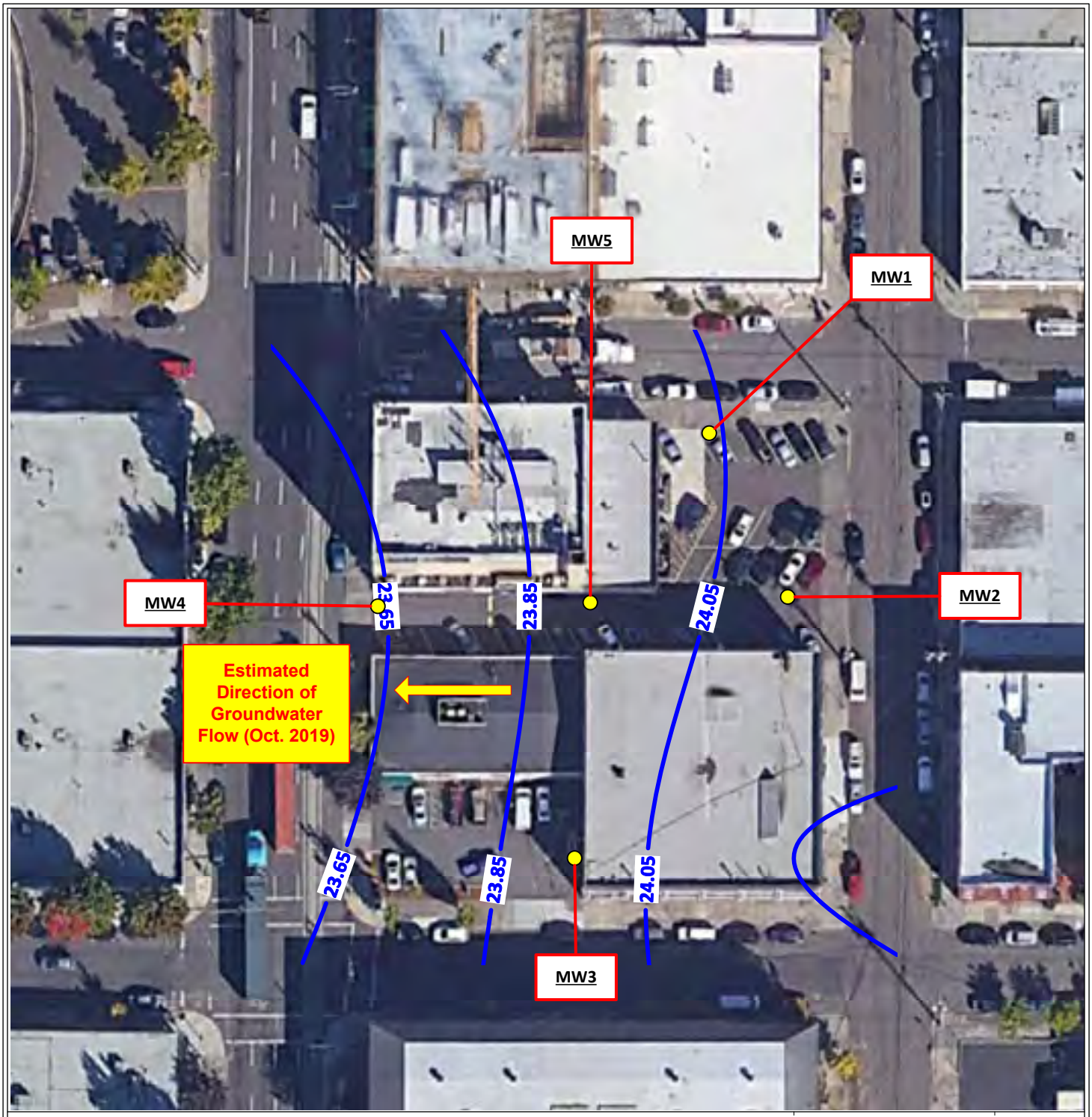


FIGURE 8C - MAY 2020 GW CONTOURS

Image From Google Earth (2018)

N

Notes:

- *GW contour elevations are in reference to the COP Datum.*
- *COP Benchmark #1818, elevation 53.408 ft was utilized for establishing monitoring well TOC elevations.*

Monitoring Well Location

Scale in Feet (Approximate)

100

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, Oregon 97214

Project Number: ECSI #6199

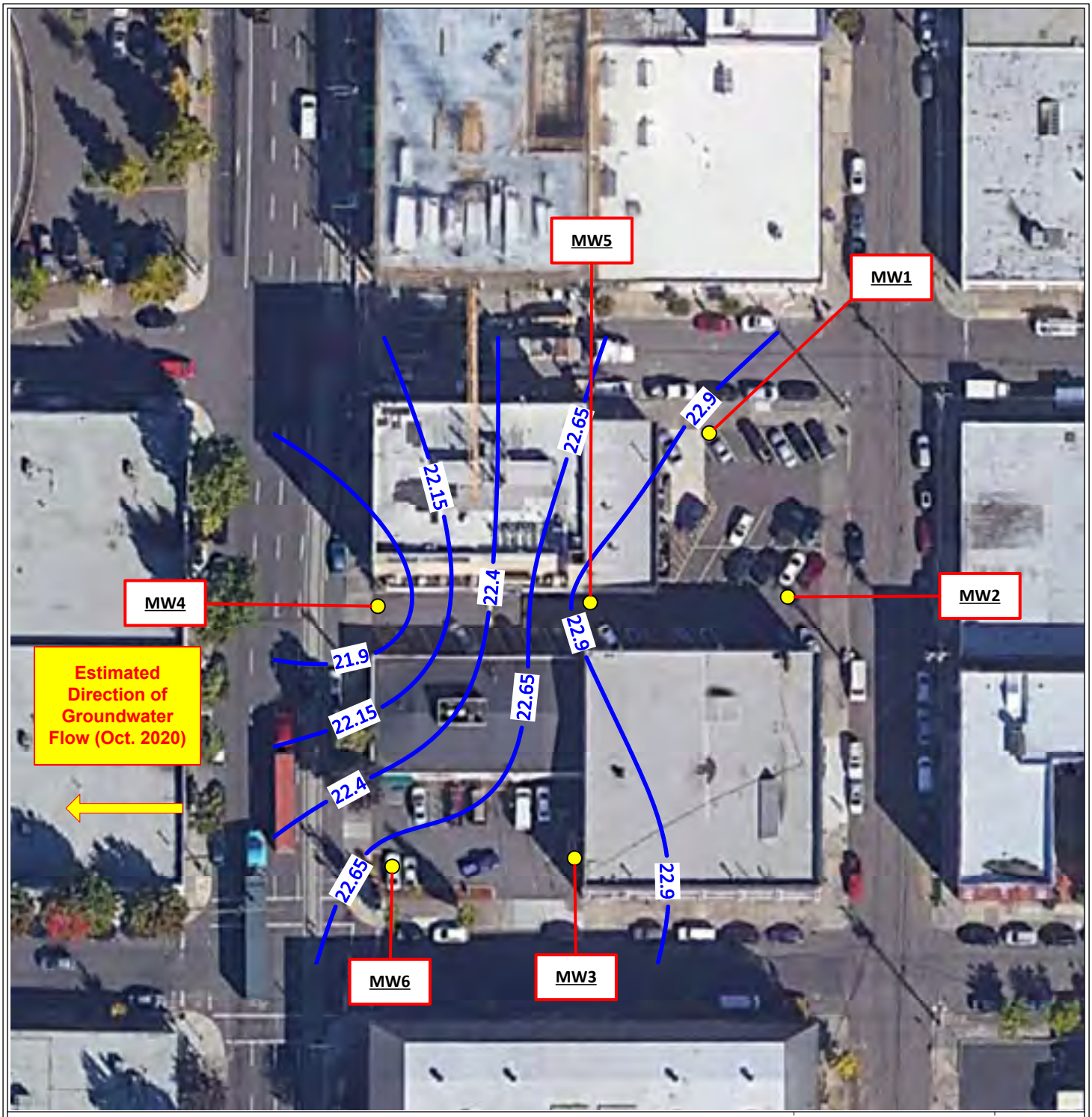


FIGURE 8D - OCT 2020 GW CONTOURS

Image From Google Earth (2018)

N↑

Notes:

- *GW contour elevations are in reference to the COP Datum.*
- *COP Benchmark #1818, elevation 53.408 ft was utilized for establishing monitoring well TOC elevations.*
- *MW6 installed by PSS July 2020*

Monitoring Well Location

Scale in Feet (Approximate)

100

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, Oregon 97214

Project Number: ECSI #6199

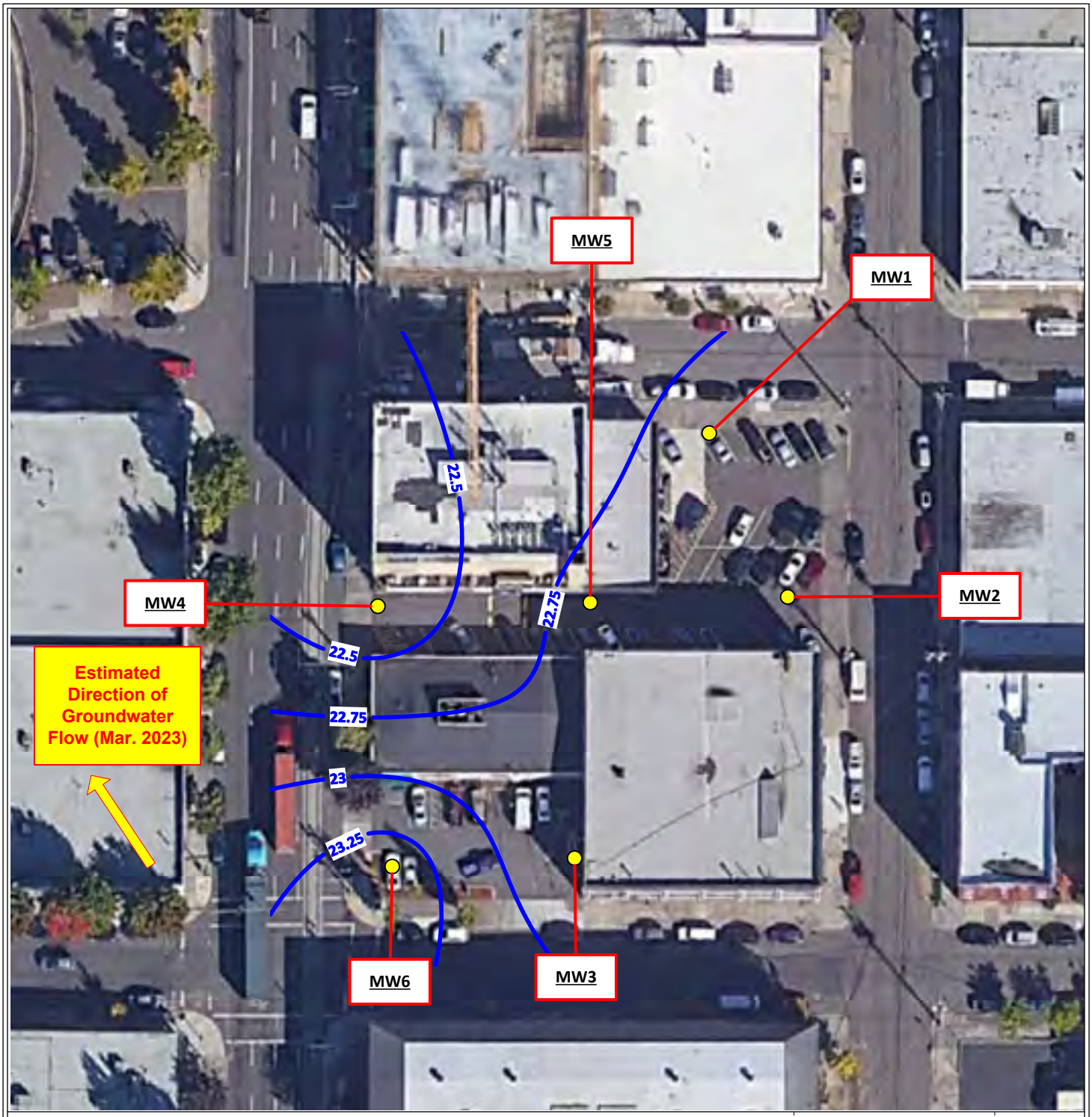


FIGURE 8E – MARCH 2023 GW CONTOURS

Image From Google Earth (2018)

N↑

Notes:

- *GW contour elevations are in reference to the COP Datum.*
- *COP Benchmark #1818, elevation 53.408 ft was utilized for establishing monitoring well TOC elevations.*
- *MW6 installed by PSS July 2020*

Monitoring Well Location

Scale in Feet (Approximate)

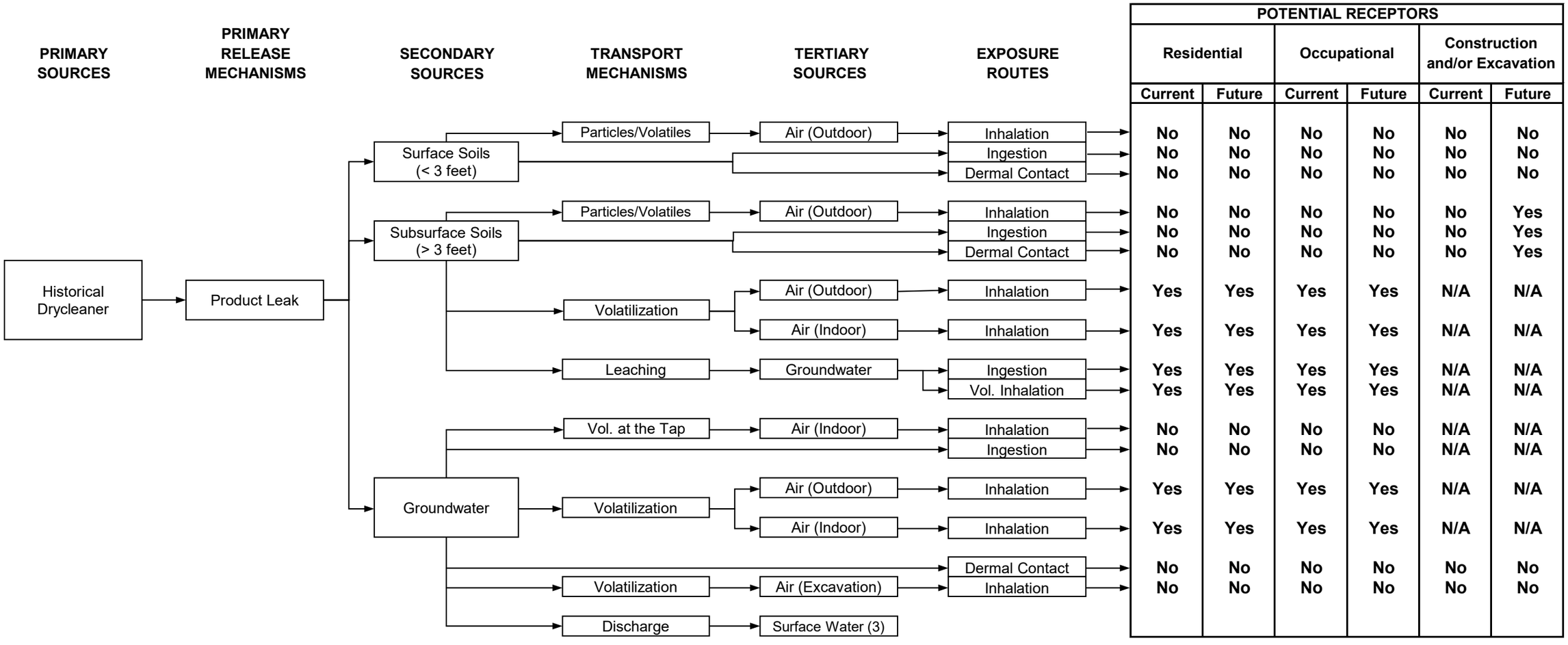
100

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, Oregon 97214

Project Number: ECSI #6199

Figure 9: RBDM Conceptual Site Model



Notes:

Yes= This route is a primary source of exposure.
No= There is no exposure by this route.

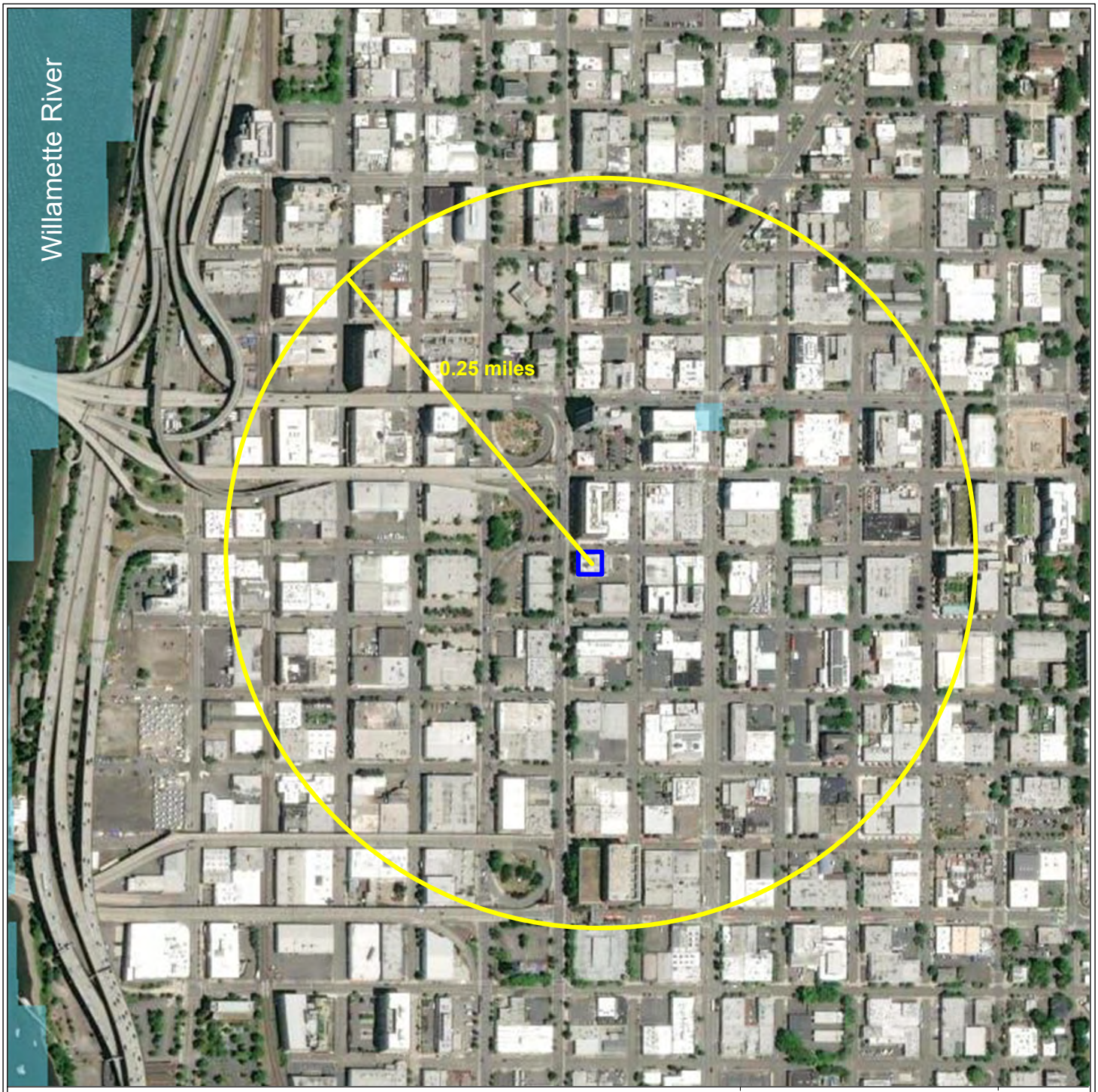


FIGURE 10 – ECOLOGICAL ASSESSMENT

ODFW Compass Map (2022)

N

Strategy Habitats

- Aspen Woodlands
- Coastal Dunes
- Estaury
- Flowing Water and Riparian
- Grasslands
- Late Successional Mixed Conifer Forests
- Natural Lakes
- Oak Woodlands
- Ponderosa Pine Woodlands
- Sagebrush Habitats
- Wetlands
- Site Boundary

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ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, OR 97214

Project Number: ECSI #6199

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

TABLES

TABLE 1A – 2012/2013 CHUGWATER INVESTIGATION (SOIL)

TABLE 1B – JANUARY 2017 SUBSURFACE INVESTIGATION (SOIL)

TABLE 1C – MARCH 2017 SUBSURFACE INVESTIGATION (SOIL)

TABLE 1D – MAY 2018 SUBSURFACE INVESTIGATION (SOIL)

TABLE 1E – AUGUST 2019 SUBSURFACE INVESTIGATION (SOIL)

TABLE 1F – 2022 ARCOA BUILDING BASEMENT SUBSURFACE INVESTIGATION (SOIL)

TABLE 2A – 2012/2013 CHUGWATER INVESTIGATION (WATER)

TABLE 2B – MAY 2018 SUBSURFACE INVESTIGATION (WATER)

TABLE 2C – OCTOBER 2019 SUBSURFACE INVESTIGATION (WATER)

TABLE 2D – FEBRUARY 2020 GROUNDWATER MONITORING EVENT (WATER)

TABLE 2E – MAY 2020 GROUNDWATER MONITORING EVENT (WATER)

TABLE 2F – OCTOBER 2020 GROUNDWATER MONITORING EVENT (WATER)

TABLE 2G – MARCH 2023 GROUNDWATER MONITORING EVENT (WATER)

TABLE 3A – CHUGWATER 2013 SOIL GAS INVESTIGATION

TABLE 3B – 2017-2019 SUBSLAB VAPOR AND SOIL GAS INVESTIGATIONS

TABLE 3C – 2020 SUBSLAB VAPOR AND SOIL GAS INVESTIGATIONS

TABLE 3D – 2022 SUBSLAB VAPOR SAMPLES

TABLE 3E – 2023 SYSTEM CONFIRMATION SUBSLAB VAPOR/VENT RISER SAMPLES

TABLE 4A – FEBRUARY 2013 INDOOR/AMBIENT AIR SAMPLING EVENT

TABLE 4B – DECEMBER 2020 INDOOR/AMBIENT AIR SAMPLING EVENT

TABLE 4C – JANUARY 2021 INDOOR/AMBIENT AIR SAMPLING EVENT

TABLE 4D – 2022 INDOOR AIR AND SEWER GAS SAMPLES

TABLE 5 – 2022 JAPANESE AUTO SUBSLAB VAPOR SAMPLE

TABLE 1A – 2012/2013 CHUGWATER INVESTIGATION (SOIL)											
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB1-S1 8'	SB1-S2 17'	SB2-S1 8'	SB2-S2 17'	SB3-S1 8'	SB3-S2 15'	SB4-S1 8'	SB4-S2 14'
SOIL (MG/KG) – EPA METHODS NWTPH-DX, 8260, RCRA 8 METALS											
Diesel	-	-	-	<50	<50	**7,100**	<50	<50	<50	<50	<50
Heavy Oil	-	-	-	<100	<100	<100	<100	<100	<100	<100	<100
Chloromethane	24	24	300	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	0.043	0.053	2.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromomethane	1.3	1.3	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloroethane	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	190	190	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethene	54	54	680	<0.05	<0.05	**0.05**	<0.05	<0.05	<0.05	<0.05	<0.05
MTBE	8.5	20	110	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans-1,2-Dichloroethene	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethene	54	54	680	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cis-1,2-Dichloroethene	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloroform	0.031	0.074	0.41	<0.05	<0.05	**2.7**	<0.05	<0.05	<0.05	<0.05	<0.05
Bromochloromethane	0.041	0.096	0.53	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1-Trichloroethane	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichloroethane (EDC)	0.077	0.18	1	<0.05	<0.05	**2.5**	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	0.12	0.28	1.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	0.16	0.38	2.1	**0.13**	<0.02	**93**	<0.02	<0.02	<0.02	<0.02	<0.02
TCE	0.12	0.26	2.3	<0.02	<0.02	**1.1**	<0.02	<0.02	<0.02	<0.02	<0.02
Bromodichloromethane	0.041	0.096	0.53	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Toluene	-	-	-	<0.05	<0.05	**40**	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2-Trichloroethane	0.32	0.38	4.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PCE	2.8	6.6	36	<0.02	<0.02	**8.6**	<0.02	<0.02	<0.02	<0.02	<0.02
EDB	0.012	0.028	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chlorobenzene	77	77	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

TABLE 1A – 2012/2013 CHUGWATER INVESTIGATION (SOIL)											
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB1-S1 8'	SB1-S2 17'	SB2-S1 8'	SB2-S2 17'	SB3-S1 8'	SB3-S2 15'	SB4-S1 8'	SB4-S2 14'
Ethylbenzene	1.3	3	17	**0.76**	<0.05	**18**	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes, total	160	160	-	**2.1**	<0.15	**170**	<0.15	<0.15	<0.15	<0.15	<0.15
Styrene	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromoform	8.2	19	110	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Isopropylbenzene	-	-	-	**1.5**	<0.05	**27**	<0.05	<0.05	<0.05	<0.05	<0.05
1,3,5-Trimethylbenzene	98	98	-	**8.4**	<0.05	**150**	<0.05	<0.05	<0.05	<0.05	<0.05
1,2,4-Trimethylbenzene	140	140	-	**16**	<0.05	**310**	**0.06**	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	0.99	2.3	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Naphthalene	6.4	15	83	**0.14**	<0.10	**12**	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	-	-	-	**9.4**	<5.0	**11**	<5.0	**8.8**	**5.3**	**12**	**8.2**
Cadmium	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium	-	-	-	**13**	<5.0	**14**	**5.3**	**8.9**	**5.8**	**8.5**	**9.6**
Arsenic	-	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Silver	-	-	-	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Barium	-	-	-	**152**	<50.0	**120**	**110**	**78**	**120**	**120**	**110**
Selenium	-	-	-	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
Mercury	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

- Concentrations are only presented for regulated compounds. Various compounds were detected in these samples without corresponding RBCs for the relevant exposure scenarios.
- - = No RBC value, due to the chemical's nonvolatility, the RBC exceeding three-phase equilibrium partitioning, or the RBC exceeding 1,000,000, or otherwise not posing a risk in this receptor scenario.

Soil exceeding RBCsi – Residential Receptors
Soil exceeding RBCsi – Urban Residential Receptors
Soil exceeding RBCsi – Occupational Receptors

TABLE 1A – 2012/2013 CHUGWATER INVESTIGATION (SOIL)									
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB5-S1 8'	SB5-S2 14'	SB6-S1 8'	SB6-S2 15'	SB2B-S1 28'	SB8-S1 14'
EPA METHODS NWTPH-DX, VOCS, RCRA 8 METALS									
Diesel	-	-	-	<50	<50	<50	<50	<50	<50
Heavy Oil	-	-	-	<100	<100	<100	<100	<100	<100
Gasoline	94	94	-	NA	NA	NA	NA	NA	<10
Stoddard Solvent	-	-	-	NA	NA	NA	NA	**65**	**310**
Chloromethane	24	24	300	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	0.043	0.053	2.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromomethane	1.3	1.3	17	<0.05	<0.05	<0.05	<0.05	NA	NA
Chloroethane	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	190	190	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethene	54	54	680	<0.05	<0.05	<0.05	<0.05	NA	NA
MTBE	8.5	20	110	<0.05	<0.05	<0.05	<0.05	NA	NA
Trans-1,2-Dichloroethene	-	-	-	<0.05	<0.05	<0.05	<0.05	NA	NA
1,1-Dichloroethene	54	54	680	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cis-1,2-Dichloroethene	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloroform	0.031	0.074	0.41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromochloromethane	0.041	0.096	0.53	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1-Trichloroethane	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichloroethane (EDC)	0.077	0.18	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	0.12	0.28	1.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	0.16	0.38	2.1	<0.02	<0.02	<0.02	<0.02	NA	NA
TCE	0.12	0.26	2.3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromodichloromethane	0.041	0.096	0.53	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Toluene	-	-	-	<0.05	<0.05	<0.05	<0.05	NA	NA
1,1,2-Trichloroethane	0.32	0.38	4.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PCE	2.8	6.6	36	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02

TABLE 1A – 2012/2013 CHUGWATER INVESTIGATION (SOIL)									
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB5-S1 8'	SB5-S2 14'	SB6-S1 8'	SB6-S2 15'	SB2B-S1 28'	SB8-S1 14'
EDB	0.012	0.028	0.16	<0.05	<0.05	<0.05	<0.05	NA	NA
Chlorobenzene	77	77	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	1.3	3	17	<0.05	<0.05	<0.05	<0.05	NA	NA
Xylenes, total	160	160	-	<0.15	<0.15	<0.15	<0.15	NA	NA
Styrene	-	-	-	<0.05	<0.05	<0.05	<0.05	NA	NA
Bromoform	8.2	19	110	<0.05	<0.05	<0.05	<0.05	NA	NA
Isopropylbenzene	-	-	-	<0.05	<0.05	<0.05	<0.05	NA	NA
1,3,5-Trimethylbenzene	98	98	-	<0.05	<0.05	<0.05	<0.05	NA	NA
1,2,4-Trimethylbenzene	140	140	-	<0.05	<0.05	<0.05	<0.05	NA	NA
1,4-Dichlorobenzene	0.99	2.3	13	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Naphthalene	6.4	15	83	<0.10	<0.10	<0.10	<0.10	NA	NA
Lead	-	-	-	**11**	**6.9**	**7.6**	**5.1**	NA	NA
Cadmium	-	-	-	<1.0	<1.0	<1.0	<1.0	NA	NA
Chromium	-	-	-	**7.8**	**6.8**	**8.1**	<5.0	NA	NA
Arsenic	-	-	-	<5.0	<5.0	<5.0	<5.0	NA	NA
Silver	-	-	-	<20.0	<20.0	<20.0	<20.0	NA	NA
Barium	-	-	-	**110**	**94**	**98**	**92**	NA	NA
Selenium	-	-	-	<20.0	<20.0	<20.0	<20.0	NA	NA
Mercury	-	-	-	<0.5	<0.5	<0.5	<0.5	NA	NA

Notes:

- Concentrations are only presented for regulated compounds. Various compounds were detected in these samples without corresponding RBCs for the relevant exposure scenarios.
- - = No RBC value, due to the chemical's nonvolatility, the RBC exceeding three-phase equilibrium partitioning, or the RBC exceeding 1,000,000, or otherwise not posing a risk in this receptor scenario.

Soil exceeding RBCsi – Residential Receptors
Soil exceeding RBCsi – Urban Residential Receptors
Soil exceeding RBCsi – Occupational Receptors

TABLE 1B – JANUARY 2017 SUBSURFACE INVESTIGATION (SOIL)									
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB15-S1 12’	SB16-S1 11.0’	SB16-S2 16.5’	SB17-S1 12’	SB18-S1 9.5’	SB18-S2 17’
SOIL (MG/KG) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)									
Diesel	-	-	-	<25	<25	<25	<25	<25	<25
Heavy Oil	-	-	-	<100	<100	<100	<100	<100	<100
Gasoline	94	94	-	<20	**21,800**	**79**	<20	**73**	**6,540**
Benzene	0.16	0.38	2.1	<0.202	**1.274**	<0.200	<0.202	<0.200	<0.204
Bromodichloromethane	0.041	0.096	0.53	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Bromoform	8.2	19	110	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Chlorobenzene	77	77	-	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Chloroform	0.031	0.074	0.41	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
1,4-dichlorobenzene	0.99	2.3	13	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
1,1-dichloroethane	0.45	1.1	5.9	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
1,1-dichloroethene	54	54	680	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Cis-1,2-dichloroethene	-	-	-	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Trans-1,2-dichloroethene	-	-	-	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Ethylbenzene	1.3	3.0	17	<0.202	**17.895**	<0.200	<0.202	<0.200	**4.420**
Hexachlorobutadiene	-	-	-	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Isopropylbenzene	-	-	-	<0.202	**13.908**	<0.200	<0.202	<0.200	**4.371**
MTBE	8.5	20	110	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Naphthalene	6.4	15	83	<0.202	**13.844**	<0.200	<0.202	<0.200	**3.764**
Styrene	-	-		<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Tetrachloroethylene	2.8	6.6	36	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Toluene	-	-	-	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
1,1,1-trichloroethane	-	-	-	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
1,1,2-trichloroethane	0.32	0.38	4.2	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
Trichloroethene	0.12	0.26	2.3	<0.202	<0.200	<0.200	<0.202	<0.200	<0.204
124-TMB	140	140	-	<0.202	**152.401**	<0.200	<0.202	<0.200	**48.284**

TABLE 1B – JANUARY 2017 SUBSURFACE INVESTIGATION (SOIL)									
ANALYTE	**RBCsi Residential**	**RBCsi Urban Residential**	**RBCsi Occupational**	**SB15-S1 12'**	**SB16-S1 11.0'**	**SB16-S2 16.5'**	**SB17-S1 12'**	**SB18-S1 9.5'**	**SB18-S2 17'**
SOIL (MG/KG) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)									
135-TMB	98	98	-	<0.202	**43.953**	<0.200	<0.202	<0.200	**17.360**
Xylenes (total)	160	160	-	<0.202	**59.353**	<0.200	<0.202	<0.200	**6.802**

Notes:

- Concentrations are only presented for regulated compounds. Various compounds were detected in these samples without corresponding RBCs for the relevant exposure scenarios.
- - = No RBC value, due to the chemical's nonvolatility, the RBC exceeding three-phase equilibrium partitioning, or the RBC exceeding 1,000,000, or otherwise not posing a risk in this receptor scenario.

Soil exceeding RBCsi – Residential Receptors
Soil exceeding RBCsi – Urban Residential Receptors
Soil exceeding RBCsi – Occupational Receptors

TABLE 1C – MARCH 2017 SUBSURFACE INVESTIGATION (SOIL)													
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB19-S1 10'	SB19-S2 17.5'	SB20-S1 10'	SB20-S2 18'	SB21-S1 16'	SB22-S1 12'	SB23-S1 12'	SB24-S1 4.5	SB24-S2 13.7	SB25-S1 14'
SOIL (MG/KG) – EPA METHODS NWTPH-GX, 8260 (VOCS)													
Gasoline	94	94	-	<7.77	<8.49	**15,000**	<4.73	<7.19	**13,800**	**15,000**	**18,300**	**114**	<8.24
Benzene	0.16	0.38	2.1	<0.0155	<0.017	<0.649	<0.00946	<0.0144	<0.305	**0.338**	**1.02**	**0.0987**	<0.0165
Bromodichloromethane	0.041	0.096	0.53	<0.155	<0.170	<6.49	<0.0946	<0.144	<1.52	<3.22	<3.15	<0.165	<0.0165
Bromoform	8.2	19	110	<0.155	<0.170	<6.49	<0.0946	<0.144	<3.05	<3.22	<3.15	<0.165	<0.165
Chlorobenzene	77	77	-	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
Chloroform	0.031	0.074	0.41	<0.0777	<0.0849	<3.24	<0.0473	<0.0719	<1.52	<1.61	<1.57	<0.0823	<0.0824
1,4-dichlorobenzene	0.99	2.3	13	<0.0389	<0.0849	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
1,1-dichloroethane	0.45	1.1	5.9	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
1,1-dichloroethene	54	54	680	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
Cis-1,2-dichloroethene	-	-	-	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
Trans-1,2-dichloroethene	-	-	-	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
Ethylbenzene	1.3	3.0	17	<0.0389	<0.0424	**1.82**	<0.0237	<0.0360	**2.48**	**17.6**	**8.18**	**0.060**	<0.0412
Hexachlorobutadiene	-	-	-	<0.155	<0.170	<6.49	<0.0946	<0.144	<3.05	<3.22	<3.15	<0.165	<0.165
Isopropylbenzene	-	-	-	<0.0777	<0.0849	**5.32**	<0.0473	<0.0719	**7.06**	**25.9**	**26.1**	<0.0823	<0.0824
MTBE	8.5	20	110	<0.0777	<0.0849	<3.24	<0.0473	<0.0719	<1.52	<1.61	<1.57	<0.0823	<0.0824
Naphthalene	6.4	15	83	<0.155	<0.170	<6.49	<0.0946	<0.144	**5.88**	**27.9**	**37.4**	<0.165	<0.165
Styrene	-	-		<0.0777	<0.0849	<3.24	<0.0473	<0.0719	<1.52	<1.61	<1.57	<0.0823	<0.0824
Tetrachloroethylene	2.8	6.6	36	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	**1.43**	<0.787	<0.0954	<0.0412
Toluene	-	-	-	<0.0777	<0.0849	<3.24	<0.0473	<0.0719	<1.52	<1.61	<1.57	<0.0823	<0.0824
1,1,1-trichloroethane	-	-	-	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<0.805	<0.787	<0.0411	<0.0412
1,1,2-trichloroethane	0.32	0.38	4.2	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	<0.761	<9.65	<0.787	<0.0411	<0.0412
Trichloroethene	0.12	0.26	2.3	<0.0389	<0.0424	<1.62	<0.0237	<0.0360	**2.07**	<0.805	**4.91**	**0.0954**	**0.0470**
124-TMB	140	140	-	**0.103**	<0.0849	**99.6**	<0.0473	<0.0719	**79.0**	**299**	**325**	**0.836**	<0.0824
135-TMB	98	98	-	<0.0777	<0.0849	**33.7**	<0.0473	<0.0719	**5.25**	**103**	**139**	**0.290**	<0.0824

TABLE 1C – MARCH 2017 SUBSURFACE INVESTIGATION (SOIL)													
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB19-S1 10’	SB19-S2 17.5’	SB20-S1 10’	SB20-S2 18’	SB21-S1 16’	SB22-S1 12’	SB23-S1 12’	SB24-S1 4.5	SB24-S2 13.7	SB25-S1 14’
SOIL (MG/KG) – EPA METHODS NWTPH-GX, 8260 (VOCS)													
Xylenes (total)	160	160	-	<0.0777	<0.0849	**18.610**	<0.0473	<0.0719	**15.26**	**80.1**	**62.1**	<0.0823	<0.0824

Notes:

- Concentrations are only presented for regulated compounds. Various compounds were detected in these samples without corresponding RBCs for the relevant exposure scenarios.
- - = No RBC value, due to the chemical’s nonvolatility, the RBC exceeding three-phase equilibrium partitioning, or the RBC exceeding 1,000,000, or otherwise not posing a risk in this receptor scenario.

Soil exceeding RBCsi – Residential Receptors
Soil exceeding RBCsi – Urban Residential Receptors
Soil exceeding RBCsi – Occupational Receptors

TABLE 1D – MAY 2018 SUBSURFACE INVESTIGATION (SOIL)				
ANALYTE	**RBCsi Residential**	**RBCsi Urban Residential**	**RBCsi Occupational**	**SB28-S1 30'**
SOIL (MG/KG) – EPA METHODS NWTPH-GX, 8260 (VOCS)				
Gasoline	94	94	-	**2,060**
Benzene	0.16	0.38	2.1	<0.0143
Bromodichloromethane	0.041	0.096	0.53	<0.0715
Bromoform	8.2	19	110	<0.143
Chlorobenzene	77	77	-	<0.0358
Chloroform	0.031	0.074	0.41	<0.0715
1,4-dichlorobenzene	0.99	2.3	13	<0.0358
1,1-dichloroethane	0.45	1.1	5.9	<0.0358
1,1-dichloroethene	54	54	680	<0.0358
Cis-1,2-dichloroethene	-	-	-	<0.0358
Trans-1,2-dichloroethene	-	-	-	<0.0358
Ethylbenzene	1.3	3.0	17	<0.0358
Hexachlorobutadiene	-	-	-	<0.143
Isopropylbenzene	-	-	-	**0.308**
MTBE	8.5	20	110	<0.0715
Naphthalene	6.4	15	83	<0.143
Styrene	-	-	-	<0.0715
Tetrachloroethylene	2.8	6.6	36	<0.0358
Toluene	-	-	-	<0.0715
1,1,1-trichloroethane	-	-	-	<0.0358
1,1,2-trichloroethane	0.32	0.38	4.2	<0.0358
Trichloroethene	0.12	0.26	2.3	<0.0358
124-TMB	140	140	-	<0.0715
135-TMB	98	98	-	<0.0715

TABLE 1D – MAY 2018 SUBSURFACE INVESTIGATION (SOIL)				
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	SB28-S1 30’
SOIL (MG/KG) – EPA METHODS NWTPH-GX, 8260 (VOCS)				
Xylenes (total)	160	160	-	<0.0715

TABLE 1E – AUGUST 2019 SUBSURFACE INVESTIGATION (SOIL)											
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	MW1-S1 26’	MW2-S1 30’	MW3-S1 36’	MW4-S1 15’	MW4-S3 34’	MW4-S2 39’	MW5-S1 9’	MW5-S2 31’
SOIL (MG/KG) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)											
Diesel	-	-	-	<25.0	<25.0	<25.0	**89.3**	<25.0	<25.0	NA	<25.0
Heavy Oil	-	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	NA	**92.7**
Gasoline	94	94	-	<2.27	<3.12	**194**	**556**	**673**	<3.66	**23,100**	**535**
EPH Aliphatic (C8-C10)	-	-	-	<21.6	<20.1	<26.1	**417**	**60.5**	<20.8	**1,180**	**100**
EPH Aliphatic (C10-C12)	-	-	-	<10.8	<10.0	<13.1	**158**	**37.2**	<10.4	**418**	**52.6**
EPH Aliphatic (C12-C16)	-	-	-	<10.8	<10.0	<13.1	<11.5	<9.66	<10.4	<13.0	<10.8
EPH Aliphatic (C16-C21)	-	-	-	<10.8	<10.0	<13.1	**<11.5**	<9.66	<10.4	<13.0	<10.8
EPH Aliphatic (C21-C34)	-	-	-	<10.8	<10.0	<13.1	**<11.5**	<9.66	<10.4	<13.0	<10.8
EPH Aromatic (C8-C10)	-	-	-	<10.8	<10.0	<13.1	**27.4**	<9.66	<10.4	**111**	<10.8
EPH Aromatic (C10-C12)	-	-	-	<10.8	<10.0	<13.1	**20.6**	<9.66	<10.4	**51.6**	<10.8
EPH Aromatic (C12-C16)	-	-	-	<10.8	<10.0	<13.1	<11.5	<9.66	<10.4	<10.4	<10.8
EPH Aromatic (C16-C21)	-	-	-	<10.8	<10.0	<13.1	<11.5	<9.66	<10.4	<10.4	<10.8
EPH Aromatic (C21-C34)	-	-	-	<10.8	<10.0	<13.1	<11.5	<9.66	<10.4	<10.4	<10.8
VPH Aliphatic (C5-C6)	-	-	-	<0.561	<0.638	<0.81	**60.5**	<9.66	<0.827	<18.7	<1.69
VPH Aliphatic (C6-C8)	-	-	-	<0.802	<0.912	<1.16	**4.47**	<9.66	<1.18	**46.8**	<2.42
VPH Aliphatic (C8-C10)	-	-	-	<0.449	<0.511	**33.2**	**76.6**	<9.66	<0.662	**2,830**	**50.4**
VPH Aliphatic (C10-C12)	-	-	-	<0.481	<0.547	**24.5**	**61.6**	<9.66	<0.709	**2,450**	**41.9**
VPH Aromatic (C8-C10)	-	-	-	<0.962	<1.09	**37.9**	**117**	<9.66	<1.42	**2,780**	**58.9**
VPH Aromatic (C10-C12)	-	-	-	<0.192	<0.219	**49.1**	**133**	<9.66	**0.617**	**2,370**	**58.5**
VPH Aromatic (C12-C13)	-	-	-	<2.24	<2.55	**22.7**	<43.8	<9.66	**4.35**	**240**	**24.2**
Benzene	0.16	0.38	2.1	<0.00453	<0.00623	<0.00612	<0.0171	<0.0140	<0.00732	<0.0563	<0.0114
Bromodichloromethane	0.041	0.096	0.53	<0.0227	<0.0312	<0.0306	<0.0853	<0.0702	<0.0366	<2.81	<0.0570
Bromoform	8.2	19	110	<0.0453	<0.0623	<0.0612	<0.171	<0.140	<0.0732	<5.63	<0.114

TABLE 1E – AUGUST 2019 SUBSURFACE INVESTIGATION (SOIL)											
ANALYTE	RBCsi Residential	RBCsi Urban Residential	RBCsi Occupational	MW1-S1 26’	MW2-S1 30’	MW3-S1 36’	MW4-S1 15’	MW4-S3 34’	MW4-S2 39’	MW5-S1 9’	MW5-S2 31’
SOIL (MG/KG) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)											
Chlorobenzene	77	77	-	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Chloroform	0.031	0.074	0.41	<0.0227	<0.0312	<0.0306	<0.0853	<0.0702	<0.0366	<2.81	<0.0570
1,4-dichlorobenzene	0.99	2.3	13	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
1,1-dichloroethane	0.45	1.1	5.9	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
1,1-dichloroethene	54	54	680	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Cis-1,2-dichloroethene	-	-	-	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Trans-1,2-dichloroethene	-	-	-	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Ethylbenzene	1.3	3.0	17	<0.0113	<0.0156	<0.0153	**0.579**	<0.0351	<0.0183	**3.19**	<0.0285
Hexachlorobutadiene	-	-	-	<0.0453	<0.0623	<0.0612	<0.171	<0.140	<0.0732	<5.63	<0.114
Isopropylbenzene	-	-	-	<0.0227	<0.0312	<0.0306	**1.40**	<0.0702	<0.0366	**13.2**	<0.0570
MTBE	8.5	20	110	<0.0227	<0.0312	<0.0306	<0.0853	<0.0702	<0.0366	<2.81	<0.0570
Naphthalene	6.4	15	83	<0.0453	<0.0623	<0.0612	**0.433**	<0.140	<0.0732	**<5.63**	<0.114
Styrene	-	-	-	<0.0227	<0.0312	<0.0306	<0.0853	<0.0702	<0.0366	<2.81	<0.0570
Tetrachloroethylene	2.8	6.6	36	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Toluene	-	-	-	<0.0227	<0.0312	<0.0306	<0.0853	<0.0702	<0.0366	<2.81	<0.0570
1,1,1-trichloroethane	-	-	-	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
1,1,2-trichloroethane	0.32	0.38	4.2	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Trichloroethene	0.12	0.26	2.3	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
124-TMB	140	140	-	<0.0227	<0.0312	<0.0306	NA	**0.110**	<0.0366	**479**	<0.0570
135-TMB	98	98	-	<0.0227	<0.0312	<0.0306	**7.68**	<0.0702	<0.0366	**147**	<0.0570
Vinyl Chloride	0.043	0.053	2.2	<0.0113	<0.0156	<0.0153	<0.0426	<0.0351	<0.0183	<1.41	<0.0285
Xylenes (total)	160	160	-	<0.0227	<0.0312	<0.0306	**0.6932**	<0.0702	<0.0366	**15.68**	<0.0570

TABLE 1F – 2022 ARCOA BUILDING BASEMENT SUBSURFACE INVESTIGATION (SOIL)										
ANALYTE	**RBCsi Residential**	**RBCsi Urban Residential**	**RBCsi Occupational**	**SB10-S1 2'**	**SB11-S1 2'**	**SB11-S2 4'**	**SB11-S3 6'**	**SB12-S1 2'**	**SB13-S1 2'**	**SB14-S1 2'**
SOIL (MG/KG) – EPA METHODS NWTPH-DX, 8260, RCRA 8 METALS										
GRO	94	94	-	<5	<5	NA	NA	<5	<5	<5
Chloroform	-	-	-	<0.05	**0.51**	**0.064**	**0.11**	**0.80**	**0.086**	<0.05
Carbon Tetrachloride	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	0.16	0.38	2.1	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethene (TCE)	0.12	0.26	2.3	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	1.3	3.0	17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Toluene	-	-	-	NA	<0.05	NA	NA	NA	NA	NA

TABLE 2A – 2012/2013 CHUGWATER INVESTIGATION (WATER)				
ANALYTE	**RBCwi Residential**	**RBCwi Urban Residential**	**RBCwi Occupational**	**SB2-W1**
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)				
Diesel	-	-	-	<250
Oil	-	-	-	<500
GX / Stoddard Solvent	22,000	22,000	-	**2,200**
Chloromethane	26,000	26,000	330,000	<1.0
Vinyl Chloride	17	17	880	<0.2
Chloroethane	2,800,000	2,800,000	-	<1.0
Trichlorofluoromethane	36,000	36,000	460,000	<1.0
1,1-Dichloroethene	29,000	29,000	360,000	<1.0
Cis-1,2-Dichloroethene	-	-	-	<1.0
Chloroform	120	290	1,600	**35**
1,1,1-Trichloroethane	-	-	-	<1.0
1,2-Dichloroethane (EDC)	300	700	3,900	<1.0
Carbon Tetrachloride	92	220	1,200	<1.0
TCE	200	430	3,700	**5.1**
Bromodichloromethane	180	420	2,300	<1.0
1,1,2-Trichloroethane	870	1,000	11,000	<1.0
PCE	3,700	8,700	48,000	**53**
Chlorobenzene	67,000	67,000	-	<1.0
1,4-Dichlorobenzene	540	1,300	7,100	<1.0
1,2-Dichlorobenzene	-	-	-	<1.0

TABLE 2B – MAY 2018 SUBSURFACE INVESTIGATION (WATER)						
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	W26	W27	W29
WATER (UG/L) – EPA METHODS NWTPH-GX, 8260 (VOCS)						
Gasoline	22,000	22,000	-	**1,460**	<100	**833**
Benzene	210	510	2,800	<0.200	<0.200	<0.200
Bromodichloromethane	180	420	2,300	<1.00	<1.00	<1.00
Bromoform	36,000	85,000	470,000	<1.00	<1.00	<1.00
Chlorobenzene	67,000	67,000	-	<0.500	<0.500	<0.500
Chloroform	120	290	1,600	**4.33**	**4.25**	**2.01**
1,4-dichlorobenzene	540	1,300	7,100	<0.500	<0.500	<0.500
1,1-dichloroethane	1,100	2,600	14,000	<0.400	<0.400	<0.400
1,1-dichloroethene	29,000	29,000	360,000	<0.400	<0.400	<0.400
Cis-1,2-dichloroethene	-	-	-	<0.400	<0.400	**1.01**
Trans-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400
Ethylbenzene	620	1,500	8,200	<0.500	<0.500	<0.500
Hexachlorobutadiene	-	-	-	<0.500	<0.500	<0.500
Isopropylbenzene	-	-	-	<1.00	<1.00	<1.00
MTBE	67,000	160,000	870,000	<1.00	<1.00	<1.00
Naphthalene	840	2,000	11,000	<2.00	<2.00	<2.00
Styrene	-	-	-	<1.00	<1.00	<1.00
Tetrachloroethylene	3,700	8,700	48,000	**0.428**	**0.863**	**0.891**
Toluene	-	-	-	<1.00	<1.00	<1.00
1,1,1-trichloroethane	-	-	-	<0.400	<0.400	<0.400
1,1,2-trichloroethane	870	1,000	11,000	<0.500	<0.500	<0.500
Trichloroethene	200	430	3,700	<0.400	<0.400	<0.400
124-TMB	50,000	50,000	-	**6.94**	<1.00	<1.00
135-TMB	36,000	36,000	-	**3.52**	<1.00	<1.00

TABLE 2B – MAY 2018 SUBSURFACE INVESTIGATION (WATER)						
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	W26	W27	W29
WATER (UG/L) – EPA METHODS NWTPH-GX, 8260 (VOCS)						
Xylenes (total)	86,000	86,000	-	**0.887**	<1.00	<1.00

TABLE 2C – OCTOBER 2019 GROUNDWATER MONITORING EVENT								
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)								
Diesel	-	-	-	<80	<80	<80	<80	<80
Heavy Oil	-	-	-	<500	<500	<500	<500	<500
Gasoline	22,000	22,000	-	<100	<100	<100	<100	<100
EPH Aliphatic (C8-C10)	-	-	-	NA	NA	NA	<39.8	<39.6
EPH Aliphatic (C10-C12)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aliphatic (C12-C16)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aliphatic (C16-C21)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aliphatic (C21-C34)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aromatic (C8-C10)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aromatic (C10-C12)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aromatic (C12-C16)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aromatic (C16-C21)	-	-	-	NA	NA	NA	<19.9	<19.8
EPH Aromatic (C21-C34)	-	-	-	NA	NA	NA	<19.9	<19.8
VPH Aliphatic (C5-C6)	-	-	-	NA	NA	NA	<40	<40
VPH Aliphatic (C6-C8)	-	-	-	NA	NA	NA	<20	<20
VPH Aliphatic (C8-C10)	-	-	-	NA	NA	NA	**103**	<20
VPH Aliphatic (C10-C12)	-	-	-	NA	NA	NA	<20	<20
VPH Aromatic (C8-C10)	-	-	-	NA	NA	NA	**116**	<50
VPH Aromatic (C10-C12)	-	-	-	NA	NA	NA	**292**	<20
VPH Aromatic (C12-C13)	-	-	-	NA	NA	NA	<20	<50
Benzene	210	510	2,800	<0.200	<0.200	<0.200	<0.200	<0.200
Bromodichloromethane	180	420	2,300	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	36,000	85,000	470,000	<1.00	<1.00	<1.00	<1.00	<1.00

TABLE 2C – OCTOBER 2019 GROUNDWATER MONITORING EVENT								
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)								
Chlorobenzene	67,000	67,000	-	<0.500	<0.500	<0.500	<0.500	<0.500
Chloroform	120	290	1,600	<1.00	<1.00	<1.00	<1.00	**2.76**
1,4-dichlorobenzene	540	1,300	7,100	<0.500	<0.500	<0.500	<0.500	<0.500
1,1-dichloroethane	1,100	2,600	14,000	<0.400	<0.400	<0.400	<0.400	<0.400
1,1-dichloroethene	29,000	29,000	360,000	<0.400	<0.400	<0.400	<0.400	<0.400
Cis-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	**0.620**	<0.400
Trans-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400
Ethylbenzene	620	1,500	8,200	<0.500	<0.500	<0.500	**0.770**	<0.500
Hexachlorobutadiene	-	-	-	<5.00	<5.00	<5.00	<5.00	<5.00
Isopropylbenzene	-	-	-	<1.00	<1.00	<1.00	**6.05**	<1.00
MTBE	67,000	160,000	870,000	<1.00	<1.00	<1.00	<1.00	<1.00
Naphthalene	840	2,000	11,000	<2.00	<2.00	<2.00	<2.00	<2.00
Styrene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethylene	3,700	8,700	48,000	**0.550**	**0.550**	**0.570**	<0.400	**0.940**
Toluene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-trichloroethane	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400
1,1,2-trichloroethane	870	1,000	11,000	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethene	200	430	3,700	<0.400	<0.400	<0.400	<0.400	**0.760**
124-TMB	50,000	50,000	-	<1.00	<1.00	<1.00	**10.6**	<1.00
135-TMB	36,000	36,000	-	<1.00	<1.00	<1.00	**1.80**	<1.00
Xylenes (total)	86,000	86,000	-	<1.00	<1.00	<1.00	<1.00	<1.00

TABLE 2D – FEBRUARY 2020 GROUNDWATER MONITORING EVENT								
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)								
Diesel	-	-	-	<74.8	<80.0	<74.8	<74.8	<82.5
Heavy Oil	-	-	-	<150	<160	<150	<150	<165
Gasoline	22,000	22,000	-	<100	<100	<100	**1,100**	<100
Benzene	210	510	2,800	<0.200	<0.200	<0.200	**0.215**	<0.200
Bromodichloromethane	180	420	2,300	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	36,000	85,000	470,000	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	67,000	67,000	-	<0.500	<0.500	<0.500	<0.500	<0.500
Chloroform	120	290	1,600	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-dichlorobenzene	540	1,300	7,100	<0.500	<0.500	<0.500	<0.500	<0.500
1,1-dichloroethane	1,100	2,600	14,000	<0.400	<0.400	<0.400	<0.400	<0.400
1,1-dichloroethene	29,000	29,000	360,000	<0.400	<0.400	<0.400	<0.400	<0.400
Cis-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	**0.747**	<0.400
Trans-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400
Ethylbenzene	620	1,500	8,200	<0.500	<0.500	<0.500	**1.32**	<0.500
Hexachlorobutadiene	-	-	-	<5.00	<5.00	<5.00	<5.00	<5.00
Isopropylbenzene	-	-	-	<1.00	<1.00	<1.00	**7.07**	<1.00
MTBE	67,000	160,000	870,000	<1.00	<1.00	<1.00	<1.00	<1.00
Naphthalene	840	2,000	11,000	<2.00	<2.00	<2.00	<2.00	<2.00
Styrene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethylene	3,700	8,700	48,000	<0.400	<0.400	<0.400	<0.400	**0.503**
Toluene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-trichloroethane	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400
1,1,2-trichloroethane	870	1,000	11,000	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethene	200	430	3,700	<0.400	<0.400	<0.400	<0.400	<0.400

TABLE 2D – FEBRUARY 2020 GROUNDWATER MONITORING EVENT								
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)								
124-TMB	50,000	50,000	-	<1.00	<1.00	<1.00	**16.0**	<1.00
135-TMB	36,000	36,000	-	<1.00	<1.00	<1.00	**2.24**	<1.00
Xylenes (total)	86,000	86,000	-	<1.00	<1.00	<1.00	<1.00	<1.00

TABLE 2E – MAY 2020 GROUNDWATER MONITORING EVENT								
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)								
Diesel	-	-	-	<75.5	<75.5	<75.5	**131**	<81.6
Heavy Oil	-	-	-	<151	<151	<150	<154	<163
Gasoline	22,000	22,000	-	<100	<100	<100	**739**	<100
Benzene	210	510	2,800	<0.200	<0.200	<0.200	<0.200	<0.200
Bromodichloromethane	180	420	2,300	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	36,000	85,000	470,000	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	67,000	67,000	-	<0.500	<0.500	<0.500	<0.500	<0.500
Chloroform	120	290	1,600	<1.00	<1.00	<1.00	<1.00	**2.79**
1,4-dichlorobenzene	540	1,300	7,100	<0.500	<0.500	<0.500	<0.500	<0.500
1,1-dichloroethane	1,100	2,600	14,000	<0.400	<0.400	<0.400	<0.400	<0.400
1,1-dichloroethene	29,000	29,000	360,000	<0.400	<0.400	<0.400	<0.400	<0.400
Cis-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	**0.470**	<0.400
Trans-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400
Ethylbenzene	620	1,500	8,200	<0.500	<0.500	<0.500	**0.850**	<0.500
Hexachlorobutadiene	-	-	-	<5.00	<5.00	<5.00	<5.00	<5.00
Isopropylbenzene	-	-	-	<1.00	<1.00	<1.00	**5.56**	<1.00
MTBE	67,000	160,000	870,000	<1.00	<1.00	<1.00	<1.00	<1.00
Naphthalene	840	2,000	11,000	<2.00	<2.00	<2.00	<2.00	<2.00
Styrene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethylene	3,700	8,700	48,000	**0.470**	**0.420**	**0.400**	<0.400	**0.560**
Toluene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-trichloroethane	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400
1,1,2-trichloroethane	870	1,000	11,000	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethene	200	430	3,700	<0.400	<0.400	<0.400	<0.400	<0.400

TABLE 2E – MAY 2020 GROUNDWATER MONITORING EVENT								
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)								
124-TMB	50,000	50,000	-	<1.00	<1.00	<1.00	**12.2**	<1.00
135-TMB	36,000	36,000	-	<1.00	<1.00	<1.00	**1.51**	<1.00
Vinyl Chloride	17	21	880	<0.400	<0.400	**0.500**	**0.500**	<0.400
Xylenes (total)	86,000	86,000	-	<1.00	<1.00	<1.00	<1.00	<1.00

TABLE 2F – OCTOBER 2020 GROUNDWATER MONITORING EVENT									
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5	MW6
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)									
Gasoline	22,000	22,000	-	<100	<100	<100	**824**	<100	<100
Benzene	210	510	2,800	<0.200	<0.200	<0.200	**0.203**	<0.200	<0.200
Bromodichloromethane	180	420	2,300	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	36,000	85,000	470,000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	67,000	67,000	-	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Chloroform	120	290	1,600	<1.00	<1.00	<1.00	<1.00	**1.08**	<1.00
1,4-dichlorobenzene	540	1,300	7,100	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
1,1-dichloroethane	1,100	2,600	14,000	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
1,1-dichloroethene	29,000	29,000	360,000	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
Cis-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	**0.661**	<0.400	**0.401**
Trans-1,2-dichloroethene	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
Ethylbenzene	620	1,500	8,200	<0.500	<0.500	<0.500	**1.10**	<0.500	<0.500
Hexachlorobutadiene	-	-	-	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Isopropylbenzene	-	-	-	<1.00	<1.00	<1.00	**5.55**	<1.00	<1.00
MTBE	67,000	160,000	870,000	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Naphthalene	840	2,000	11,000	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Styrene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethylene	3,700	8,700	48,000	**0.667**	**0.952**	**0.785**	**0.785**	**1.27**	**0.698**
Toluene	-	-	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,1-trichloroethane	-	-	-	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
1,1,2-trichloroethane	870	1,000	11,000	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
Trichloroethene	200	430	3,700	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
124-TMB	50,000	50,000	-	<1.00	<1.00	<1.00	**9.15**	<1.00	<1.00
135-TMB	36,000	36,000	-	<1.00	<1.00	<1.00	**1.18**	<1.00	<1.00

TABLE 2F – OCTOBER 2020 GROUNDWATER MONITORING EVENT									
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5	MW6
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)									
Vinyl Chloride	17	21	880	<0.400	<0.400	<0.400	**0.589**	<0.400	<0.400
Xylenes (total)	86,000	86,000	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

TABLE 2G – MARCH 2023 GROUNDWATER MONITORING EVENT									
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5	MW6
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)									
Gasoline	22,000	22,000	-	<100	<100	<100	**720**	<100	<100
Benzene	210	510	2,800	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35
Bromodichloromethane	180	420	2,300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform	36,000	85,000	470,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	67,000	67,000	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	120	290	1,600	<1.0	<1.0	**1.5**	<1.0	**1.8**	<1.0
1,4-dichlorobenzene	540	1,300	7,100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethane	1,100	2,600	14,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethene	29,000	29,000	360,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,2-dichloroethene	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trans-1,2-dichloroethene	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	620	1,500	8,200	<1.0	<1.0	<1.0	**1.5**	<1.0	<1.0
Hexachlorobutadiene	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	-	-	-	<1.0	<1.0	<1.0	**5.6**	<1.0	<1.0
MTBE	67,000	160,000	870,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	840	2,000	11,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethylene	3,700	8,700	48,000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-trichloroethane	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	870	1,000	11,000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	200	430	3,700	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
124-TMB	50,000	50,000	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
135-TMB	36,000	36,000	-	<1.0	<1.0	<1.0	**1.4**	<1.0	<1.0

TABLE 2G – MARCH 2023 GROUNDWATER MONITORING EVENT									
ANALYTE	RBCwi Residential	RBCwi Urban Residential	RBCwi Occupational	MW1	MW2	MW3	MW4	MW5	MW6
WATER (UG/L) – EPA METHODS NWTPH-DX, NWTPH-GX, 8260 (VOCS)									
Vinyl Chloride	17	21	880	<0.02	<0.02	<0.02	**0.42**	<0.02	<0.02
Xylenes (total)	86,000	86,000	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

TABLE 3A – CHUGWATER 2013 SOIL GAS INVESTIGATION					
ANALYTE	RBCsv Residential	RBCsv Urban Residential	RBCsv Occupational	SV2	SV3
SOIL GAS (UG/M3) – EPA METHOD TO-15					
Benzene	72	170	1,600	**66**	<37
Bromodichloromethane	15	36	330	<28	<78
Bromoform	510	1,200	11,000	<43	<120
Bromomethane	1,000	1,000	22,000	<160	<450
Carbon Tetrachloride	94	220	2,000	**34**	**1,800**
Chloroethane	2,100,000	2,100,000	44,000,000	<44	<120
Chloroform	24	58	530	**36**	**19,000**
Chloromethane	19,000	19,000	390,000	<86	<240
1,2-Dichlorobenzene	42,000	42,000	880,000	<25	<70
1,4-Dichlorobenzene	51	120	1,100	<25	<70
1,1-Dichloroethane	350	830	7,700	<17	<47
1,1-Dichloroethene	350	830	7,700	<16	<46
Cis-1,2-Dichloroethene	-	-	-	<16	**84**
Trans-1,2-Dichloroethene	-	-	-	<16	<46
1,4-Dioxane	110	270	2,500	<60	<170
Ethylbenzene	220	530	4,900	**24**	<50
Hexachlorobutadiene	1.2	2.9	27	<180	<500
Isopropylbenzene	83,000	83,000	1,800,000	**98**	<57
MTBE	2,200	5,100	47,000	<15	<42
Styrene	210,000	210,000	4,400,000	<18	<50
Tetrachloroethene (PCE)	2,200	5,100	47,000	**2,200**	**400**
Toluene	1,000,000	1,000,000	22,000,000	**34**	<44
1,1,1-Trichloroethane	1,000,000	1,000,000	22,000,000	<23	<64
1,1,2-Trichloroethane	35	42	770	<23	<64
Trichloroethene (TCE)	95	200	2,900	**62**	**66**

TABLE 3A – CHUGWATER 2013 SOIL GAS INVESTIGATION					
ANALYTE	RBCsv Residential	RBCsv Urban Residential	RBCsv Occupational	SV2	SV3
SOIL GAS (UG/M3) – EPA METHOD TO-15					
1,2,4-Trimethylbenzene	13,000	13,000	260,000	**2,800**	**78**
1,3,5-Trimethylbenzene	13,000	13,000	260,000	**1,100**	<57
Vinyl Chloride	33	41	2,800	<11	<30
Xylenes	21,000	21,000	440,000	**300**	<50

TABLE 3B – 2017-2019 SUBSLAB VAPOR AND SOIL GAS INVESTIGATIONS									
ANALYTE	RBCsv Residential	RBCsv Urban Residential	RBCsv Occupational	SS2 (2017)	SV3 (2018)	SV4 (2018)	SV5 (2018)	SV1 (2019)	SS1 (2019)
SOIL GAS (UG/M3) – EPA METHOD TO-15									
GRO	79,000	79,000	1,700,000	NA	<4,100	<4,100	<4,100	**1,500,000**	<2,800
Benzene	72	170	1,600	<1.6	<3.2	<3.2	<3.2	**240**	<1.1
Bromodichloromethane	15	36	330	<3.4	<0.67	<0.67	<0.67	<2.5	<0.23
Bromoform	510	1,200	11,000	<10	<21	<0.52	<21	<79	<7
Bromomethane	1,000	1,000	22,000	<1.9	<16	<16	<16	<59	<5.3
Carbon Tetrachloride	94	220	2,000	<3.1	<6.3	<6.3	<6.3	<24	**2.7**
Chloroethane	2,100,000	2,100,000	44,000,000	<1.3	<2.6	<2.6	<2.6	<100	<9
Chloroform	24	58	530	<2.4	<0.49	**11**	**4.1**	<1.9	**14**
Chloromethane	19,000	19,000	390,000	<1	<2.1	<2.1	<2.1	<78	<7
1,2-Dichlorobenzene	42,000	42,000	880,000	<6	<6	<6	<6	<23	<2
1,4-Dichlorobenzene	51	120	1,100	<3	<2.4	<2.4	**8.0**	<9.1	<0.82
1,1-Dichloroethane	350	830	7,700	<2	<4	<4	<4	<15	<1.4
1,1-Dichloroethene	350	830	7,700	<2	<4	<4	<4	<15	<1.3
1,4-Dioxane	110	270	2,500	<1.8	<3.6	<3.6	<3.6	<14	<1.2
1,2-dibromoethane (EDB)	0.94	2.2	20	<3.8	<0.77	<0.77	<0.77	<2.9	<0.26
1,2-dichloroethane (EDC)	22	51	470	<2	<0.4	<0.4	<0.4	<1.5	**0.15**
Ethylbenzene	220	530	4,900	<2.2	<4.3	<4.3	**6.5**	**610**	<1.5
Isopropylbenzene	83,000	83,000	1,800,000	NA	NA	NA	NA	**1,100**	<8.4
MTBE	2,200	5,100	47,000	NA	<18	<18	<18	<69	<6.1
Naphthalene	17	39	360	**2.6**	**1.3**	<1	**1.7**	<10	<0.89
Styrene	210,000	210,000	4,400,000	<4.3	<8.5	<8.5	<8.5	<32	<2.9
Tetrachloroethene (PCE)	2,200	5,100	47,000	**23**	**10**	**10**	**9.0**	**1,500**	<23
Toluene	1,000,000	1,000,000	22,000,000	**5.2**	**4.5**	**4.7**	**6.6**	<720	<64
1,1,1-Trichloroethane	1,000,000	1,000,000	22,000,000	<2.7	<5.5	<5.5	<5.5	<21	<1.9
1,1,2-Trichloroethane	35	42	770	<2.7	<0.55	<0.55	<0.55	<4.1	<0.37

TABLE 3B – 2017-2019 SUBSLAB VAPOR AND SOIL GAS INVESTIGATIONS									
ANALYTE	**RBCsv Residential**	**RBCsv Urban Residential**	**RBCsv Occupational**	**SS2 (2017)**	**SV3 (2018)**	**SV4 (2018)**	**SV5 (2018)**	**SV1 (2019)**	**SS1 (2019)**
SOIL GAS (UG/M3) – EPA METHOD TO-15									
Trichloroethene (TCE)	95	220	2,900	<2.7	<2.7	<2.7	<2.7	**220**	**3.6**
Trichlorofluoromethane (Freon 11)	150,000	150,000	3,100,000	<2.8	<5.6	<5.6	<5.6	<85	<7.6
1,2,4-Trimethylbenzene	13,000	13,000	260,000	<12	<25	<25	<25	**7,800**	<8.4
1,3,5-Trimethylbenzene	13,000	13,000	260,000	<12	<25	<25	<25	**8,400**	<8.4
Vinyl Chloride	33	41	2,800	<1.3	<2.6	<2.6	<2.6	<9.7	<0.87
Xylenes	21,000	21,000	440,000	**11.7**	<8.7	<8.7	<8.7	**2,700**	**3.2**

TABLE 3C – 2020 SUBSLAB VAPOR AND SOIL GAS INVESTIGATIONS								
ANALYTE	**RBCsv Residential**	**RBCsv Urban Residential**	**RBCsv Occupational**	**SV1B**	**SV2B**	**SV3B**	**SV6**	**SV7**
SOIL GAS (UG/M3) – EPA METHOD TO-15								
GRO	79,000	79,000	1,700,000	<920	<470	<21,000	<620	<490
APH C5-6	-	-	-	**120**	NA	NA	NA	NA
C8-10 Aromatic Hydrocarbons	-	-	-	<110	NA	NA	NA	NA
C10-C12 Aromatic Hydrocarbons	-	-	-	<120	NA	NA	NA	NA
C5-C6 Aliphatic Hydrocarbons	-	-	-	<32	NA	NA	NA	NA
C6-C8 Aliphatic Hydrocarbons	-	-	-	<41	NA	NA	NA	NA
C8-C10 Aliphatic Hydrocarbons	-	-	-	<58	NA	NA	NA	NA
C10-C12 Aliphatic Hydrocarbons	-	-	-	<70	NA	NA	NA	NA
C8-C10 Aromatic Hydrocarbons	-	-	-	<49	NA	NA	NA	NA
C10-C12 Aromatic Hydrocarbons	-	-	-	<55	NA	NA	NA	NA
Benzene	72	170	1,600	<7.2	<3.7	<160	<4.8	<3.8
Carbon Tetrachloride	94	220	2,000	NA	<7.2	**3,700**	<9.6	<7.5
Chloroform	24	58	530	NA	**64**	**50,000**	**53**	<5.8
1,2-dichloroethane (EDC)	22	51	470	NA	<4.6	<210	<6.2	<4.8
Ethylbenzene	220	530	4,900	<9.8	<5.0	<220	<6.6	<5.2
Naphthalene	17	39	360	<24	<12	<530	<16	<12
Tetrachloroethene (PCE)	2,200	5,100	47,000	NA	<7.8	**380**	**20**	<8.1
Toluene	1,000,000	1,000,000	22,000,000	<8.5	**5.0**	<190	<5.7	**13**
Trichloroethene (TCE)	95	220	2,900	NA	<6.2	<270	<8.2	<6.4

TABLE 3C – 2020 SUBSLAB VAPOR AND SOIL GAS INVESTIGATIONS								
ANALYTE	RBCsv Residential	RBCsv Urban Residential	RBCsv Occupational	SV1B	SV2B	SV3B	SV6	SV7
SOIL GAS (UG/M3) – EPA METHOD TO-15								
1,2,4-Trimethylbenzene	13,000	13,000	260,000	**13**	<5.6	<250	<7.5	<5.8
1,3,5-Trimethylbenzene	13,000	13,000	260,000	<11	<5.6	<250	<7.5	<5.8
Xylenes	21,000	21,000	440,000	<9.8	<10.0	<440	<13	<10

TABLE 3D – 2022 SUBSLAB VAPOR SAMPLES						
ANALYTE	**RBCsv Residential**	**RBCsv Urban Residential**	**RBCsv Occupational**	**SV8**	**SV9**	**SV10**
SOIL GAS (UG/M3) – EPA METHOD TO-15						
GRO	79,000	79,000	1,700,000	**3,600**	<2,000	**3,100**
Benzene	72	170	1,600	**3.4**	<1.9	**2.1**
Carbon Tetrachloride	94	220	2,000	<1.8	<1.9	**42**
Chloroform	24	58	530	**0.40**	**0.67**	**280**
Ethylbenzene	220	530	4,900	**8.9**	<2.6	**6.7**
Trichloroethene (TCE)	95	200	2,900	<0.62	<0.64	<0.64
2-Propanol	-	-	-	<50	<52	**110**

TABLE 3E – 2023 SYSTEM CONFIRMATION SUBSLAB VAPOR/VENT RISER SAMPLES					
ANALYTE	RBCsv Residential	RBCsv Urban Residential	RBCsv Occupational	SV11	RISER (RBCS NOT APPLICABLE)
SOIL GAS (UG/M3) – EPA METHOD TO-15					
Carbon Tetrachloride	94	220	2,000	61	290
Chloroform	24	58	530	**2,700**	3,300
2-Propanol	-	-	-	<130	NA

TABLE 4A – FEBRUARY 2013 INDOOR/AMBIENT AIR SAMPLING EVENT					
ANALYTE	RBCair Residential	RBCair Urban Residential	RBCair Occupational	IA-1	IA-2
AMBIENT AIR (UG/M3) – EPA METHOD TO-15					
Benzene	0.36	0.85	1.6	<3.7	<3.7
Bromodichloromethane	0.076	0.18	0.33	<7.7	<7.7
Bromoform	2.6	6	11	<12	<12
Bromomethane	5.2	5.2	22	<45	<45
Carbon Tetrachloride	0.47	1.1	2	<7.2	<7.2
Chloroethane	10,000	10,000	44,000	<12	<12
Chloroform	0.12	0.29	0.53	<5.6	<5.6
Chloromethane	94	94	390	<24	<24
1,2-Dichlorobenzene	210	210	880	<6.9	<6.9
1,4-Dichlorobenzene	0.26	0.6	1.1	<6.9	<6.9
1,1-Dichloroethane	1.8	4.1	7.7	<4.6	<4.7
1,1-Dichloroethene	210	210	880	<4.6	<4.6
Cis-1,2-Dichloroethene	-	-	-	<4.6	<4.6
Trans-1,2-Dichloroethene	-	-	-	<4.6	<4.6
1,4-Dioxane	0.56	1.3	2.5	<16	<17
Ethylbenzene	1.1	2.7	4.9	<5.0	<5.0
Hexachlorobutadiene	-	-	-	<49	<49
Isopropylbenzene	420	420	1,800	<5.7	<5.7
MTBE	11	26	47	<4.1	<4.1
Styrene	1,000	1,000	4,400	<4.9	<4.9
Tetrachloroethene (PCE)	11	26	47	**7.8**	<7.8
Toluene	5,200	5,200	22,000	<4.3	<4.4
1,1,1-Trichloroethane	5,200	5,200	22,000	<6.3	<6.3
1,1,2-Trichloroethane	0.18	0.21	0.77	<6.3	<6.3
Trichloroethene (TCE)	0.47	1	2.9	<6.2	<6.2

TABLE 4A – FEBRUARY 2013 INDOOR/AMBIENT AIR SAMPLING EVENT					
ANALYTE	RBCair Residential	RBCair Urban Residential	RBCair Occupational	IA-1	IA-2
AMBIENT AIR (UG/M3) – EPA METHOD TO-15					
1,2,4-Trimethylbenzene	63	63	260	<5.6	<5.7
1,3,5-Trimethylbenzene	63	63	260	<5.6	<5.6
Vinyl Chloride	0.17	0.2	2.8	<2.9	<2.9
Xylenes	100	100	440	<10	<10

TABLE 4B – DECEMBER 2020 INDOOR/AMBIENT AIR SAMPLING EVENT						
ANALYTE	**RBCair Residential**	**RBCair Urban Residential**	**RBCair Occupational**	**AA1**	**AA2**	**AA3**
AMBIENT AIR (UG/M3) – EPA METHOD TO-15						
GRO	390	390	1,700	**120**	**120**	<90
Benzene	0.36	0.85	1.6	**0.91**	**0.82**	<0.66
Carbon Tetrachloride	0.47	1.1	2.0	**0.40**	**0.82**	<0.16
Chloroform	0.12	0.29	0.53	**0.22**	**3.9**	<0.16
Ethylbenzene	1.1	2.7	4.9	**0.55**	**0.45**	<0.16
Trichloroethene (TCE)	0.47	1.0	2.9	**0.065**	**0.13**	<0.033

TABLE 4C – JANUARY 2021 INDOOR/AMBIENT AIR SAMPLING EVENT							
ANALYTE	RBCair Residential	RBCair Urban Residential	RBCair Occupational	AA4	AA5	AA6	AA7
AMBIENT AIR (UG/M3) – EPA METHOD TO-15							
Chloroform	0.12	0.29	0.53	0.10	**2.9**	**0.81**	**2.3**

TABLE 4D – 2022 INDOOR AIR AND SEWER GAS SAMPLES						
ANALYTE	RBCair Residential	RBCair Urban Residential	RBCair Occupational	AA8	AA9	SEWER GAS
SOIL GAS (UG/M3) – EPA METHOD TO-15						
GRO	390	390	1,700	<330	<330	NA
Benzene	0.36	0.85	1.6	**0.37**	**0.38**	<1.4
Carbon Tetrachloride	0.47	1.1	2	**0.48**	**2.7**	**1.8**
Chloroform	0.12	0.29	0.53	**0.89**	**20**	**14**
Ethylbenzene	1.1	2.7	4.9	<0.43	<0.43	<2
Trichloroethene (TCE)	0.47	1	2.9	<0.11	<0.11	NA

TABLE 5 – 2022 JAPANESE AUTO SUBSLAB VAPOR SAMPLE				
ANALYTE	**RBCsv Residential**	**RBCsv Urban Residential**	**RBCsv Occupational**	**SS1**
SOIL GAS (UG/M3) – EPA METHOD TO-15				
Tetrachloroethene (PCE)	2,200	5,100	47,000	**89**
Trichloroethene (TCE)	95	200	2,900	**180**
2-Propanol	-	-	-	<54

Notes:

- Concentrations are only presented for regulated compounds. Various compounds were detected in these samples without corresponding RBCs for the relevant exposure scenarios.
- - = No RBC value, due to the chemical's nonvolatility, the RBC exceeding three-phase equilibrium partitioning, or the RBC exceeding 1,000,000, or otherwise not posing a risk in this receptor scenario.

Soil exceeding RBCsi – Residential Receptors
Soil exceeding RBCsi – Urban Residential Receptors
Soil exceeding RBCsi – Occupational Receptors

The SS RBCs are presented below compared to generic RBCs for gasoline range-hydrocarbons. In most cases the SS RBCs developed for stoddard solvent are lower, and thus more conservative than the comparable generic RBCs. The SSRBCs below were utilized for the Risk Screening described in the proceeding sections.

TABLE 7 – SITE SPECIFIC RBCS FOR STODDARD SOLVENT EXPRESSED AS TPH-GX				
Medium	**Pathway**	**Receptor**	**Site Specific RBC**	**Generic RBC**
Soil	Ingestion, Dermal Contact, and Inhalation (RBCss)	Residential	**620**	1,200
		Urban Residential	**1,200**	2,500
		Occupational	**9,700**	20,000
		Construction Worker	**4,200**	9,700
		Excavation Worker	**>MAX**	>MAX
Soil	Volatilization to Outdoor Air (RBCso)	Residential	**3,000**	5,900
		Urban Residential	**3,000**	5,900
		Occupational	**>MAX**	69,000
Soil	Vapor Intrusion Into Buildings (RBCsi)	Residential	**80**	94
		Urban Residential	**80**	94
		Occupational	**>MAX**	>MAX
Soil	Leaching to Groundwater (RBCsw)	Residential	**220**	31
		Urban Residential	**220**	31
		Occupational	**>MAX**	130
Groundwater	Ingestion and Inhalation (RBCtw)	Residential	**100**	110
		Urban Residential	**100**	110

TABLE 7 – SITE SPECIFIC RBCS FOR STODDARD SOLVENT EXPRESSED AS TPH-GX				
Medium	**Pathway**	**Receptor**	**Site Specific RBC**	**Generic RBC**
		Occupational	**430**	450
Groundwater	Volatilization to Outdoor Air (RBCwo)	Residential	**>S**	>S
		Urban Residential	**>S**	>S
		Occupational	**>S**	>S
Groundwater	Volatilization to Indoor Air (RBCwi)	Residential	**18,000**	22,000
		Urban Residential	**18,000**	22,000
		Occupational	**>S**	>S
Groundwater	Dermal Absorption and Inhalation (RBCwe)	Construction & Excavation Worker	**11,000**	14,000
Air	Inhalation (RBCair)	Residential	**100**	390
		Urban Residential	**100**	390
		Occupational	**430**	1,700
Soil Gas	Inhalation (RBCsg)	Residential	**20,000**	79,000
		Urban Residential	**20,000**	79,000
		Occupational	**430,000**	1,700,000

Notes

- Soil RBCs are expressed in mg/kg
- Groundwater RBCs are expressed in ug/L
- Air and Soil Gas RBCs are expressed in ug/m^3
- >MAX = Greater than 100,000 mg/kg
- >S = Exceeds the solubility limit

point source solutions, llc

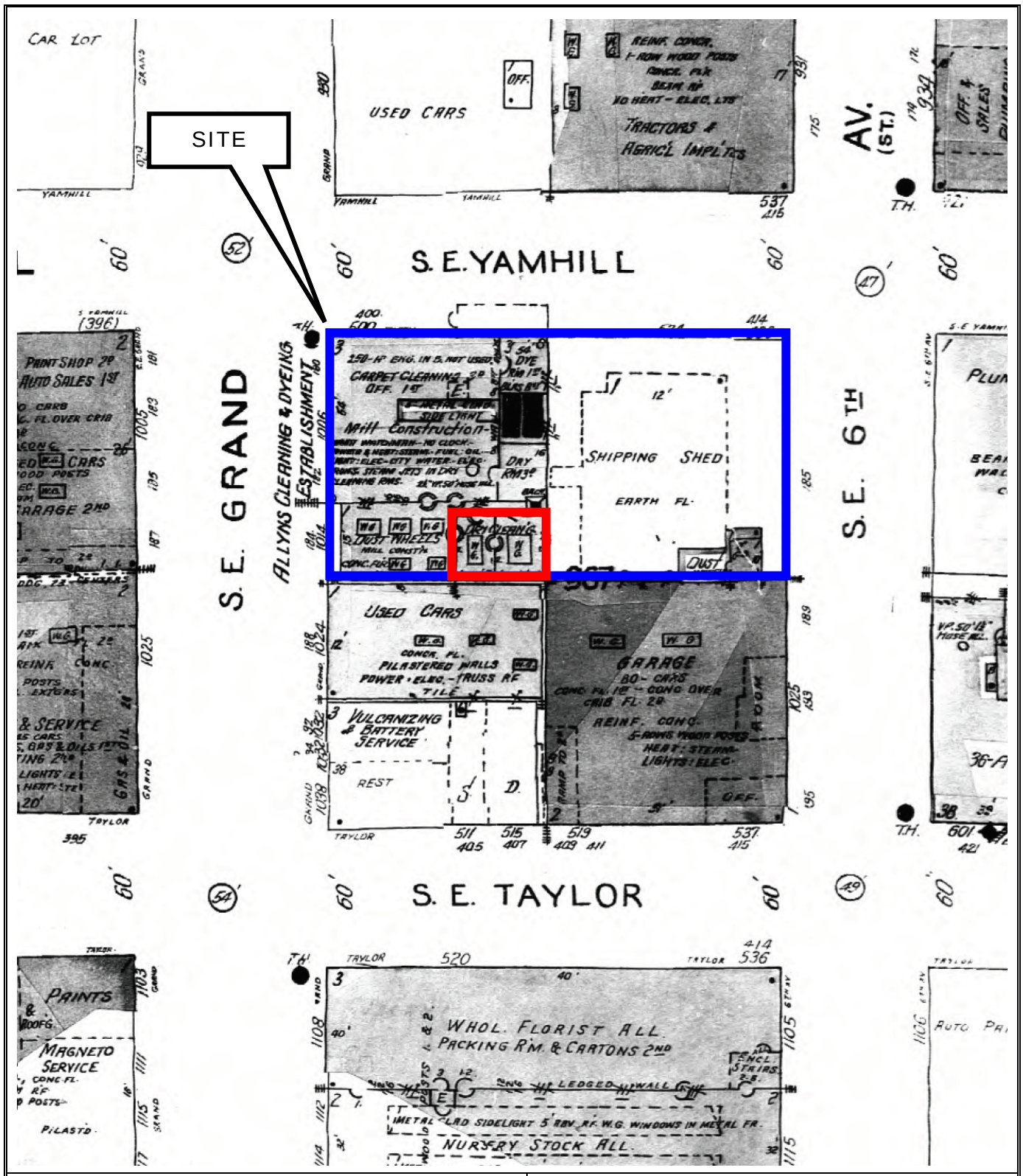
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDICES

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX A
SANBORN FIRE INSURANCE MAPS



Appendix A - SANBORN MAP	**Date:** 1950 **N↑**
point source solutions, llc ENGINEERING • ENVIRONMENTAL • SAFETY	**Site Name:** Former Arcoa Building 1006 SE Grand Avenue Portland, Oregon 97214 **Project Number:** OR190517-3

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX B

2013 CHUGWATER REPORT

SUBSURFACE ENVIRONMENTAL SITE ASSESSMENT

ARCOA BUILDING
1006 SE GRAND AVENUE
PORTLAND, MULTNOMAH COUNTY, OREGON 97214

Report Prepared for and Reliance Provided to:

MR. VINCE HUFFSTUTTER
15019 SW RIVERSHORE DRIVE
VANCOUVER, WASHINGTON 98683

Report Date: March 12, 2013
Chugwater Project CW130201.1

CHUGWATER, LLC
environmental due diligence

10445 sw canyon road, suite 101
beaverton, oregon 97005
ph: 503.916.9254 fax: 503.352.0920

Chugwater performed an Environmental Subsurface Investigation on the Arcoa Building, located at 1006 SE Grand Avenue, Portland, Oregon 97214 ("Property"). This investigation was performed in accordance with Chugwater's Proposal CW121215-1 authorized by Mr. Vince Huffstutter on January 31, 2013.

PURPOSE

The purpose of this investigation is to assess recognized environmental conditions (RECs) identified in a Phase I Environmental Site Assessment (Project CW121116.2) prepared by Chugwater for Killian Pacific LLC in December 2012. The information provided in this report describes the work performed and provides documentation of the data and evaluation that constitutes the factual findings of the investigation. This investigation is not intended to satisfy the level of inquiry that may be necessary to support remedial solutions or determine migration pathways related to a release from the RECs.

BACKGROUND INFORMATION

Chugwater performed a Phase I ESA on the Arcoa Building located at 1006 SE Grand Avenue, Portland, Oregon in general conformance with the scope and limitations of ASTM Practice E 1527-05.

The Property is located in Portland, Oregon and is currently improved with a three-story commercial building with a basement constructed in 1909; a single-story addition to the east of the main Property building constructed in 1985; and a parking lot located to the east of the Property building. According to information provided by the City of Portland, the main building square footage is 23,400 total square feet and the 1985 addition square footage is 2,100 total square feet. The Property is identified by Multnomah County as tax lots 1S1E02BC01300 and 1S1E02BC01000 and consists of approximately 0.44 acres. The Property is zoned EX-Central Employment by the City of Portland.

This assessment revealed environmental concerns in connection with the Property.

Historic use of the Property from 1909 through 1959 included the presence of a dry cleaning and dyeing plant operated as US Laundry and Allyn's. Significant features depicted in Sanborn Fire Insurance Maps of the Property dated 1924 and 1950 include a dry cleaning area located in what is now the drive south of the Property building accessing the Property off of SE Grand Avenue, two fuel oil fired boilers located in the northeast corner of the Property building, and an earth floor storage and shipping shed in the current Property parking lot.

- The presence of former dry cleaning businesses on the Property indicates the likely use of perchloroethylene as a dry cleaning solvent. Information provided by the State Coalition for the Remediation of Drycleaners indicates that contamination is routinely encountered at dry cleaning locations as a result of improper waste disposal and routine maintenance issues. Perchloroethylene is an environmental contaminant regulated by the Oregon Department of Environmental Quality.

- It is likely that fuel oil supplying the boilers formerly located in the northeast corner of the Property building basement was stored in underground storage tanks. Chugwater did not identify any permits indicating the removal of underground storage tanks from the Property.

SOILS, GEOLOGY & GROUNDWATER CHARACTERISTICS

The Property is situated near the outlet of the Columbia River Gorge where it intersects with the Willamette Valley (Orr, Orr, Baldwin, 1992). Sediments collected in this area record multiple Ice Age floods that originated in Montana, poured through the Cascades via the Columbia River, and backed up in the valley before eventually draining to the Pacific Ocean. The Property is located at approximately 55 feet above mean sea level.

According to a well log search conducted on the Oregon Water Resources website, no significant shallow groundwater resources have been encountered in wells advanced in close proximity of the Property. Water bearing zones were defined between 20 and 35 feet below ground surface in wells advanced in the vicinity of the Property. The water-bearing units within the area are comprised of alluvium. No on-site water wells or springs were observed during the Property reconnaissance. Domestic water is supplied to the Property by the City of Portland and is reportedly obtained primarily from surface water.

Based on a review of the Portland Quadrangle 7.5 minute series topographic map, the inferred groundwater flow at the site is to the north northeast. The Property does not overlie a sole source aquifer.

Based on the USEPA Ground Water Handbook, Vol.1 Ground Water and Contamination, September 1990, the water table typically conforms to surface topography.

SCOPE OF WORK

The purpose of the subsurface environmental investigation is to collect soil, groundwater and soil vapor samples on the Property to confirm the presence or absence of contaminants related to the past use of the Property as a dry cleaning plant and the past storage of fuel oil on the Property.

Areas of Potential Concern, Proposed Borings and Analysis

Based upon the past and current configuration and use of the Property, the following areas were identified for investigation. Boring locations are depicted on the attached Boring Location Diagram.

Area of Potential Concern	Boring Locations
Soil, soil vapor and groundwater In area of former dry cleaning plant	SB1, SB2, SB2B, SB7, SB8 & SB9 and SV1, SV2 & SV3
Soil in the vicinity of former boiler plant	SB5
Soil in the vicinity of former dirt floor storage building	SB3, SB4, SB5 & SB6

Boring	Media	Analytical Methods	Detection Limit
All	Soil	NWTPH-Dx, Stoddard Solvent (Gx), RCRA 8 Metals & EPA 8260	RBCs for Leaching to Groundwater or Less
SB2B	Water	NWTPH-Dx, Stoddard Solvent (Gx) & EPA 8260	RBCs for Occupational Ingestion or less

Task 1 – Project Coordination

Chugwater performed a site visit to determine specific sampling locations and confirm utility locations, develop a site specific health and safety plan for the proposed sampling activities and coordinate the efforts of subcontract services including geophysical surveys, environmental drilling and analytical laboratory services.

Task 2 – Geophysical Investigation

Chugwater subcontracted a subsurface mapping survey of selected portions of the Property to locate features of environmental interest and clear boring locations. Ground penetrating radar and magnetometer surveys were used in this investigation and results were marked on-site.

Pacific Geophysics performed the subsurface mapping survey.

Task 2 – Subsurface Investigation

Chugwater collected soil, groundwater and soil vapor samples as follows:

- Soil samples were collected from nine boring locations including four locations representing the area denoted on Sanborn Maps as being the location of dry cleaning equipment (SB1, SB2/2B, SB7 and SB8); one location representing the area denoted on Sanborn Maps as being the location of the Property building boiler plant (SB5); and four locations representing the area denoted on Sanborn Maps as being the location of storage building with a dirt floor (SB3, SB4, SB5 & SB6). The soil borings were advanced using a direct push probe.

- A single groundwater sample was collected from SB2B to evaluate impacts to groundwater in the area where soils impacted by suspected dry cleaning compounds and diesel fuel.

- Three soil vapor samples were collected to evaluate vapor concentrations in the area where soils impacted by suspected dry cleaning compounds and diesel fuel as well as beneath the Arcoa Building. Soil vapor sample SV1 is considered invalid as the Summa canister used in collecting this sample did not depressurize correctly in the field.

Task 3 – Analytical Services

Soil and groundwater samples were transported to ESN Northwest for analysis by NWTPH-Dx, NWTPH-Gx, EPA Method 6020 (Metals) and EPA Method 8260 (Volatile Organic Compounds).

Soil vapor samples were transported to Air Toxics for analysis by TO-15.

Exceptions to the Scope of Work

The proposed scope of work for this project was substantially completed.

Soil vapor sample SV1 is considered invalid as the Summa canister used in collecting this sample did not depressurize correctly in the field.

UTILITY LOCATING

Prior to initiating the field activities, Oregon law requires that, at least 48 hours prior to the initiation of any subsurface work (drilling, backhoe operation, etc.), a utility inspection be performed at the subject property. This inspection consists of the marking of underground utility locations by authorized utility locating personnel. The utility inspection was performed prior to the drilling activities. The ticket number for the utility inspection is 12232613.

SAMPLING METHODOLOGY and QA/QC

Soil borings were advanced using geoprobe macro tooling with an acetate liner. Water samples were collected using stainless steel screened geoprobe tooling. Direct push tooling was decontaminated in a water and detergent solution and rinsed in tap water between samples and boring locations. A clean pair of Nitrile gloves was worn by field personnel for the collection of each sample. Soil samples were placed in laboratory provided 4 oz. glass containers with Teflon-lined lids. Water samples were collected using a peristaltic pump and placed in laboratory provided VOA containers and amber 1-liter bottles. Upon collection, all samples were chilled. One transport blank was prepared and handled according to ODEQ Quality Assurance Policy 760.00.

Soil vapor samples were collected in Summa canisters provided by Air Toxics.

All analytical data was reviewed for quality assurance. Chain of Custody was maintained for all samples.

HEALTH AND SAFETY PLAN

A written site specific Safety Plan was read by field personnel. A toolbox safety meeting was conducted at the site prior to the commencement of the field work. Topics included potential exposure to contaminants of interest, personal protective equipment (drilling and media contact), location of first aid kit and fire extinguisher, and location/directions to closest emergency medical facility.

GEOPHYSICAL SURVEY

A magnetometer survey was conducted at the Property in order to detect large, underground objects that could be possible USTs. Ground penetrating radar (GPR) and handheld metal detectors were used to investigate several magnetic anomalies, and to clear the proposed boring locations.

Several magnetic anomalies were detected and investigated; however, none appeared to be caused by large metallic objects. No USTs were detected within the magnetometer survey area.

SUBSURFACE INVESTIGATION

The investigation was conducted on December 15, 2012 and February 15, 2013. During the investigation, soil borings were advanced with a push probe drilling rig by ESN Northwest. The borings were advanced in locations determined by Chugwater based on the findings of the previously prepared Phase I Environmental Site Assessment, the findings of the geophysical survey and marked utility locations.

- **Boring SB1** was completed to 20 feet below ground surface (bgs) near the center of the drive south of the Arcoa Building in the area depicted on Sanborn Maps as the location of dry cleaning equipment. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. Soil staining and odor was encountered from 6.5 to 17 feet bgs in this boring. Soil samples were collected at depths of 8 and 17 feet bgs at this location. Groundwater was not encountered in this boring.

- **Boring SB2/2B** was completed to 32 feet bgs at the east end of the drive south of the Arcoa Building in the area depicted on Sanborn Maps as the location of dry cleaning equipment. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. Soil staining and odor was encountered from 6.5 to 17 feet bgs in this boring. Soil samples were collected at depths of 8, 17 and 28 feet bgs at this location. Groundwater was encountered at a depth of 28.4 feet bgs in this boring. Static groundwater was measured at a depth of 28.0 feet bgs prior to abandonment of this boring. A groundwater sample was collected in this boring.

- **Boring SB3** was completed to 20 feet bgs in the southwest corner of the parking lot located to the east of the Arcoa Building. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. No indications of contamination were noted in the continuous soil cores collected from this boring. Soil samples were collected at depths of 8 and 15 feet bgs at this location. Groundwater was not encountered in this boring.

- **Boring SB4** was completed to 20 feet bgs in the southeast corner of the parking lot located to the east of the Arcoa Building. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. No indications of contamination were noted in the continuous soil cores collected from this boring. Soil samples were collected at depths of 8 and 14 feet bgs at this location. Groundwater was not encountered in this boring.

- **Boring SB5** was completed to 20 feet bgs in the northwest corner of the parking lot located to the east of the Arcoa Building. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. No indications of contamination were noted in the continuous soil cores collected from this boring. Soil samples were collected at depths of 8 and 14 feet bgs at this location. Groundwater was not encountered in this boring.

- **Boring SB6** was completed to 20 feet bgs in the northeast corner of the parking lot located to the east of the Arcoa Building. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. No indications of contamination were noted in the continuous soil cores collected from this boring. Soil samples were collected at depths of 8 and 15 feet bgs at this location. Groundwater was not encountered in this boring.

- **Boring SB7** was completed to 8 feet bgs near the center of the drive south of the Arcoa Building in the area depicted on Sanborn Maps as the location of dry cleaning equipment. Native soil consisting of fine-grained alluvium was encountered in the boring. Soil staining and odor was encountered from 6.5 to 8 feet bgs in this boring. Soil samples were not collected at this location. Groundwater was not encountered in this boring.

- **Boring SB8** was completed to 20 feet bgs near the west end of the drive south of the Arcoa Building in the area depicted on Sanborn Maps as the location of dry cleaning equipment. Native soil consisting of fine-grained alluvium from the surface to approximately 17 feet bgs and coarse-grained alluvium from 17 to 20 feet below ground surface was encountered in the boring. Soil staining and odor was encountered from 7.0 to 13 feet bgs in this boring. A soil samples was collected at depths of 14 feet bgs at this location. Groundwater was not encountered in this boring.

- **Boring SB9/SV3** was completed to 1 foot bgs below the building floor slab in the basement communications room. Sandy fill material was encountered in the boring. No indications of contamination were noted in the continuous soil core collected from this boring. A soil sample was collected at a depth of 1.0 feet bgs at this location. A soil vapor probe was driven at this location and soil vapor sample SV3 was collected.

- **SV1** was completed to 4 feet bgs on the south side of the drive south of the Arcoa Building in a location near the south adjoining property building fronting SE 6th Avenue. A soil vapor probe was driven at this location and soil vapor sample SV1 was collected.

- **SV2** was completed to 4 feet bgs on the south side of the drive south of the Arcoa Building in a location near the south adjoining property building fronting SE Grand Avenue. A soil vapor probe was driven at this location and soil vapor sample SV2 was collected.

The boring locations are illustrated on Figure 3. Boring logs are presented in Appendix I.

Soil Sampling

Soil samples were continuously collected with a four-foot long stainless-steel macro core and disposable acetate sleeves.

The soil samples collected from each boring were field screened with a photo-ionization detector (PID) for volatile organic vapors. Field screening readings, olfactory and visual indications of potential contamination are noted above and on soil boring logs found in the appendix.

Groundwater Sampling

A temporary groundwater monitoring well were established and a groundwater sample collected with a peristaltic pump from boring SB2B. Static groundwater level was encountered at 28.4 feet below ground surface.

Soil Vapor Sampling

Soil Vapor samples were collected in 1 liter sample canister provided Air Toxics. The sample canister, Teflon tubing, vacuum gauges and flow rate orifice apparatus were connected in the sample string. Vacuum gauges and sample canister vacuum were checked before initiating sample collection. The air volume within the collection apparatus and Teflon tubing was purged prior to sample collection. Geoprobe tooling was advanced to a depth of 4 feet bgs. A bentonite seal was applied to the point of ground and at the exit of the Teflon tubing through the Geoprobe tool string. Paper towels saturated with 2-propanol were placed around the seals and sample apparatus.

Laboratory Analytical Results

Fourteen soil samples, one groundwater sample and three soil vapor samples were collected for analysis.

The soil and groundwater samples were transported under chain of custody to ESN Northwest, Inc. of Olympia, Washington, an Oregon certified laboratory. The soil vapor samples were transported to Eurofins/Air Toxics in Folsom, California.

The sample analytical results are summarized in the tables below. Only compounds regulated by the Oregon Department of Environmental Quality are reported in these tables. The laboratory analytical report and chain-of-custody forms are included as Appendix II.

TABLE 1
LABORATORY ANALYTICAL RESULTS –TPH/VOCS/METALS IN SOIL (MG/KG)

Sample Number	Date	Depth	TPHs	Metals	8260 VOCs
SB1-S1	2/15/2012	8.0’	none detected	Lead – 9.4 Chromium – 13 Barium – 152	Benzene – 0.13 Ethylbenzene – 0.76 Xylenes – 2.1

TABLE 1
LABORATORY ANALYTICAL RESULTS –TPH/VOCS/METALS IN SOIL (MG/KG)

Sample Number	Date	Depth	TPHs	Metals	8260 VOCs
					Isopropylbenzene – 1.5 1,3,5-Trimethybenzene – 8.4 1,2,4-Trimethybenzene - 16 Napthalene – 0.14
SB1-S2	12/15/2012	17.0’	none detected	Chromium – 6.4 Barium – 75	none detected
SB2-S1	12/15/2012	8.0’	Diesel – 7,100	Lead – 11 Chromium – 14 Barium – 120	1,1-Dichloroethene – 0.05 Chloroform – 2.7 EDC – 2.5 Benzene - 93 Trichloroethene – 1.1 Toluene - 40 Tetrachloroethene – 8.6 Ethylbenzene - 18 Xylenes - 170 Isopropylbenzene - 27 1,3,5-Trimethybenzene - 150 1,2,4-Trimethybenzene - 310 Napthalene - 12
SB2B-S1	2/15/2013	28’	Stoddard (Gx) - 65	not analyzed	Tetrachloroethene – 0.3 1,3,5-Trimethybenzene – 0.16 1,2,4-Trimethybenzene – 0.32
SB3-S1	12/15/2012	8.0’	none detected	Lead – 8.8 Chromium – 8.9 Barium – 78	not analyzed
SB3-S2	12/15/2012	15.0’	none detected	Lead – 5.3 Chromium – 5.8 Barium – 120	not analyzed
SB4-S1	12/15/2012	8.0’	none detected	Lead – 12 Chromium – 8.5 Barium – 120	not analyzed
SB4-S2	12/15/2012	14.0’	none detected	Lead – 8.2 Chromium – 9.6 Barium – 110	not analyzed
SB5-S1	12/15/2012	8.0’	none detected	Lead – 11 Chromium – 7.8 Barium – 110	not analyzed
SB5-S2	12/15/2012	14.0’	none detected	Lead – 6.9 Chromium – 6.8 Barium – 94	not analyzed
SB6-S1	12/15/2012	8.0’	none detected	Lead – 7.6 Chromium – 8.1 Barium – 98	not analyzed

TABLE 1
LABORATORY ANALYTICAL RESULTS –TPH/VOCS/METALS IN SOIL (MG/KG)

Sample Number	Date	Depth	TPHs	Metals	8260 VOCs
SB6-S2	12/15/2012	15.0'	none detected	Lead – 8.5 Chromium – 9.5 Barium – 101	not analyzed
SB8-S1	2/15/2013	14'	Stoddard (Gx) - 310	not analyzed	Ethylbenzene – 0.16 Xylenes - 0.38 Isopropylbenzene – 0.50 1,3,5-Trimethybenzene – 3.5 1,2,4-Trimethybenzene – 12
SB9-S1	2/15/2013	2'	not analyzed	not analyzed	none detected

TABLE 2
LABORATORY ANALYTICAL RESULTS –TPH/VOCS IN GROUNDWATER (UG/L)

Sample Number	Date	Depth	TPH	8260 VOC
SB2B-W1	2/15/2013	28.4'	Stoddard (Gx Range) – 2,200	cis-1,2-Dichloroethene – 1.6 Chloroform – 35 Benzene – 3.4 Trichloroethene – 5.1 Tetrachloroethene – 53 Xylenes – 37 Isopropylbenzene – 9.9 1,3,5-Trimethybenzene – 57 1,2,4-Trimethybenzene - 140 Napthalene - 14

TABLE 3
LABORATORY ANALYTICAL RESULTS –VOCS IN SOIL VAPOR (UG/M^3)

Sample Number	Date	Depth	TPH Concentrations	TO 15 VOC Concentrations
SV1	2/15/2013	4.0'	Sample SV1 was received at laboratory (Eurofins/Air Toxics) with significant vacuum remaining in canister. The residual canister vacuum resulted in elevated reporting limits as well as elevated concentrations. As such these results are not used for the evaluation of conditions.	
SV2	2/15/2013	4.0'	NA	Chloroform – 36 Carbon Tetrachloride – 34 Benzene – 66 Trichloroethene – 62 Toluene – 34 Tetrachloroethene – 2200 Ethylbenzene - 24

TABLE 3 LABORATORY ANALYTICAL RESULTS –VOCS IN SOIL VAPOR (UG/M^3)				
Sample Number	**Date**	**Depth**	**TPH Concentrations**	**TO 15 VOC Concentrations**
				Xylenes – 300 1,3,5-Trimethybenzene – 1100 1,2,4-Trimethybenzene – 2800
SV3	2/15/2013	1.0’	NA	Cis-1, 2-Dichloroethene – 84 Chloroform – 19000 Carbon Tetrachloride – 1800 Trichloroethene – 66 Tetrachloroethene – 400 1,2,4-Trimethybenzene – 78

FINDINGS

Concentrations of compounds exceeding occupational and/or construction worker exposure scenarios are noted below in bold type.

TABLE 4 OCCUPATIONAL/CONSTRUCTION WORKER RBCS		
Occupational	**TPHs**	**VOCs**
Soil Ingestion, Dermal Contact & Inhalation	Gx – 20,000 Dx – 14,000	1,1-Dichloroethene – 27,000 Chloroform – 25 EDC – 15 **Benzene - 34** Trichloroethene – 46 Toluene – 77,000 Tetrachloroethene – 940 Ethylbenzene - 140 Xylenes – 25,000 Isopropylbenzene – 53,000 1,3,5-Trimethybenzene – 10,000 1,2,4-Trimethybenzene – 2,000 Napthalene - 23
Soil Volatilization to Outdoor Air	Gx – 69,000 Dx – 14,000	Chloroform – 17 EDC – 15 Benzene - 50 Trichloroethene – 96 Ethylbenzene – 160 1,2,4-Trimethybenzene – 1,000 Napthalene - 1500
Soil Vapor Intrusion to Buildings	Gx – NA Dx – NA	1,1-Dichloroethene – 680 **Chloroform – 0.41** **EDC – 0.59** **Benzene – 1.2** Trichloroethene – 2.8 Tetrachloroethene – 36

TABLE 4 OCCUPATIONAL/CONSTRUCTION WORKER RBCS		
Occupational	**TPHs**	**VOCs**
		Ethylbenzene - 12 1,2,4-Trimethybenzene – 1,000 Napthalene - 99
Soil Leaching to Groundwater	**Gx – 130** Dx – NA	1,1-Dichloroethene – 0.20 **Chloroform – 0.017** **EDC – 0.0077** **Benzene – 0.053** **Trichloroethene – 0.21** **Tetrachloroethene – 3.7** **Ethylbenzene – 0.90** **Xylenes - 100** **1,2,4-Trimethybenzene - 68** **Napthalene – 0.44**
Groundwater Ingestion and Inhalation	**Gx – 450** **Dx – 430**	cis-1,2-Dichloroethene – 290 **Chloroform – 0.99** **Benzene – 2.2** **Trichloroethene – 3.6** Tetrachloroethene – 53 Xylenes – 850 Isopropylbenzene – 0.27 1,3,5-Trimethybenzene – 1,500 **1,2,4-Trimethybenzene - 61** **Napthalene – 0.72**
Groundwater Volatilization to Outdoor Air	Gx – NA Dx – NA	Chloroform – 5,500 Benzene – 14,000 Trichloroethene – 19,000 Napthalene – 16,000
Groundwater Vapor Intrusion to Buildings	Gx – NA Dx – NA	Chloroform – 1,200 Benzene – 2,800 Trichloroethene – 3,300 Tetrachloroethene – 32,000 Napthalene – 10,000
Soil Gas Vapor Intrusion to Buildings	Gx – 1,700,000 Dx – 440,000	**Chloroform – 530** Carbon Tetrachloride – 2000 Benzene – 1600 Trichloroethene – 2900 Toluene – 2.2E+07 Tetrachloroethene – 47000 Ethylbenzene - 4900 Xylenes – 440000 1,2,4-Trimethybenzene – 31000
Construction Worker	**TPHs**	**VOCs**
Soil Ingestion, Dermal Contact & Inhalation	Gx – 9,700 **Dx – 4,600**	1,1-Dichloroethene – 2,900 Chloroform – 380 EDC – 180

TABLE 4 OCCUPATIONAL/CONSTRUCTION WORKER RBCS		
Occupational	**TPHs**	**VOCs**
		Benzene - 340 Trichloroethene – 120 Toluene – 24,000 Tetrachloroethene – 1600 Ethylbenzene – 1,600 Xylenes – 19,000 Isopropylbenzene – 24,000 1,3,5-Trimethybenzene – 3,100 1,2,4-Trimethybenzene – 2,000 Napthalene - 500
Groundwater in Excavation	Stoddard (Gx Range) – 2,200	cis-1,2-Dichloroethene – 24,000 Chloroform – 720 Benzene – 1,700 Trichloroethene – 430 Tetrachloroethene – 5,400 Xylenes – 23,000 1,3,5-Trimethybenzene – 23,000 1,2,4-Trimethybenzene – 1,700 Napthalene - 500

Cleanup criteria for compounds noted in Table 4 are established in the manual titled *"Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites"* prepared by the Oregon Department of Environmental Quality revised June 7, 2012.

TABLE 5 MAXIMUM CONCENTRATIONS DETECTED		
Highest Concentration Soil	**TPHs**	**VOCs**
	Gx – 2,200 Dx – 7,100	1,1-Dichloroethene – 0.05 Chloroform – 2.7 EDC – 2.5 Benzene - 93 Trichloroethene – 1.1 Toluene - 40 Tetrachloroethene – 8.6 Ethylbenzene - 18 Xylenes - 170 Isopropylbenzene - 27 1,3,5-Trimethybenzene - 150 1,2,4-Trimethybenzene - 310 Napthalene - 12
Highest Concentration Groundwater	**TPHs**	**VOCs**
	Stoddard (Gx Range) – 2,200	cis-1,2-Dichloroethene – 1.6 Chloroform – 35 Benzene – 3.4 Trichloroethene – 5.1

TABLE 5 MAXIMUM CONCENTRATIONS DETECTED		
		Tetrachloroethene – 53 Xylenes – 37 Isopropylbenzene – 9.9 1,3,5-Trimethybenzene – 57 1,2,4-Trimethybenzene - 140 Napthalene - 14
Highest Concentration Soil Vapor	**TPHs**	**VOCs**
	Not Tested	Chloroform – 19000 Carbon Tetrachloride – 1800 Benzene – 66 Trichloroethene – 66 Toluene – 34 Tetrachloroethene – 2200 Ethylbenzene - 24 Xylenes – 300 1,2,4-Trimethybenzene – 2800

- With the exception of chloroform, maximum concentrations of volatile organic compounds have not resulted in corresponding soil gas levels exceeding the soil vapor intrusion into buildings pathway.

- Chloroform in soil was detected maximum concentration of 2.7 mg/kg. This concentration exceeds the cleanup criteria for soil vapor intrusion into buildings in an occupational setting. Chloroform in soil gas was detected at a maximum concentration of 19,000 ug/m3 which exceeds the cleanup criteria for soil vapor intrusion into buildings in an occupational setting.

CONCLUSIONS

The following conclusions are based on the results of the Environmental Subsurface Investigation performed on Arcoa Building, located at 1006 SE Grand Avenue, Portland, Oregon 97214 (“Property”). This investigation was performed in accordance with Chugwater’s Proposal CW121215-1authorized by Mr. Vince Huffstutter on January 31, 2013.

- Drinking water at the Property is provided from the City of Portland therefore the Tapwater Ingestion and Inhalation pathway is not complete.

- No underground storage tanks were detected as a result of the geophysical conducted as part of this investigation.

- Diesel-range hydrocarbons were detected in SB2 near the southeast corner of the original Arcoa Building. This likely represents fuel oil impact to soils. It is unlikely that the detected levels of fuel oil in soil would trigger regulatory action unless disturbed by construction/excavation activities.

- Stoddard Solvent and volatile organic compounds likely associated with the past use of dry cleaning chemicals on the Property were detected in SB1, SB2, SB2B, SB7 and SB8 in the drive to the south of the Arcoa Building. It is unlikely that the presence of Stoddard Solvent and volatile organic compounds in soil would trigger regulatory action unless disturbed by construction/excavation activities. Soil vapor levels of these compounds do not exceed the cleanup criteria for soil vapor intrusion into buildings in an occupational setting.

- Chloroform in soil was detected maximum concentration of 2.7 mg/kg. This concentration exceeds the cleanup criteria for soil vapor intrusion into buildings in an occupational setting. Chloroform in soil gas beneath the Arcoa Building was detected at a maximum concentration of 19,000 ug/m3 which exceeds the cleanup criteria for soil vapor intrusion into buildings in an occupational setting.

- Other than chloroform in the soil vapor sample collected from beneath the Arcoa Building (SV3), soil gas concentrations did not exceed the cleanup criteria for soil gas intrusion into buildings in an occupational setting.

Treating municipal and industrial water supplies consumes large amounts of chlorine. Because of these uses, excess chlorine often enters the natural environment where it mixes with organic compounds. These organic compounds then react with chlorine to form chloro-organic compounds, such as chloroform. Chloroform commonly found in City of Portland drinking water is a breakdown product of chlorine which is used by the City for drinking water disinfection. These results indicate the presence of total trihalomethanes (which includes chloroform) in drinking water provided by the City of Portland (2012 Water Quality Report) in concentrations ranging from 16 ug/L to 32 ug/L. The federal Maximum Concentration Level for trihalomethanes in drinking water is 80 ug/L.

It is possible that the presence of chloroform in soil, groundwater and soil gas is the result of leakage from water lines serving the Arcoa Building. According to Mr. Huffstutter, there have been some overly large water bills which he had attributed to sticking flush valves. Chugwater recommends that the condition of the water lines feeding the Arcoa Building be checked for leaks as this maybe the source of chloroform detected in samples.

Currently, the ODEQ has no reporting requirements for releases confirmed in the process of performing real estate due diligence investigations. Regulatory address of this release by the ODEQ would require entry into the Voluntary Cleanup Program (VCP). The VCP allows the ODEQ to provide oversight to property owners and others wishing to investigate and clean up hazardous substance sites in a voluntary, cooperative manner. The Voluntary Cleanup Program offers two options for cleaning up contaminated sites, the Independent Cleanup Pathway and the Voluntary Cleanup Pathway.

This Environmental Subsurface Investigation is intended for the exclusive use of Mr. Vince Huffstutter or entities specified by Vince Huffstutter. This report and findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor relied upon by any other party, in whole or in part without prior written consent of Chugwater.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Gil Cobb
Registered Professional Geologist (Oregon #G1440)

FIGURES

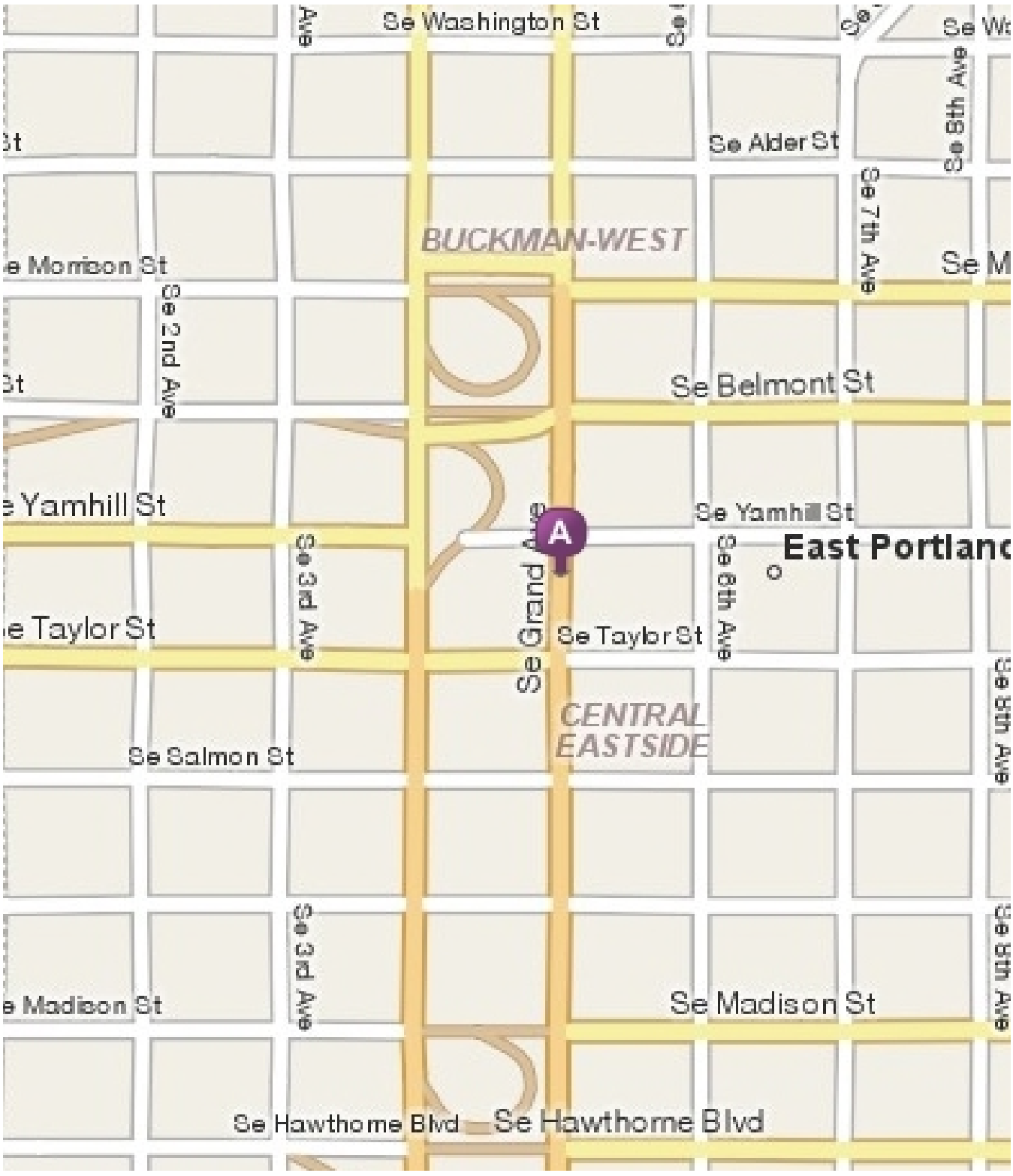


FIGURE 1 - SITE LOCATION MAP	Map from Mapquest N↑
CHUGWATER, LLC environmental due diligence	**Site Name:** Arcoa Building 1006 SE Grand Avenue Portland, Oregon 97214 **Project Number:** CW130201.1

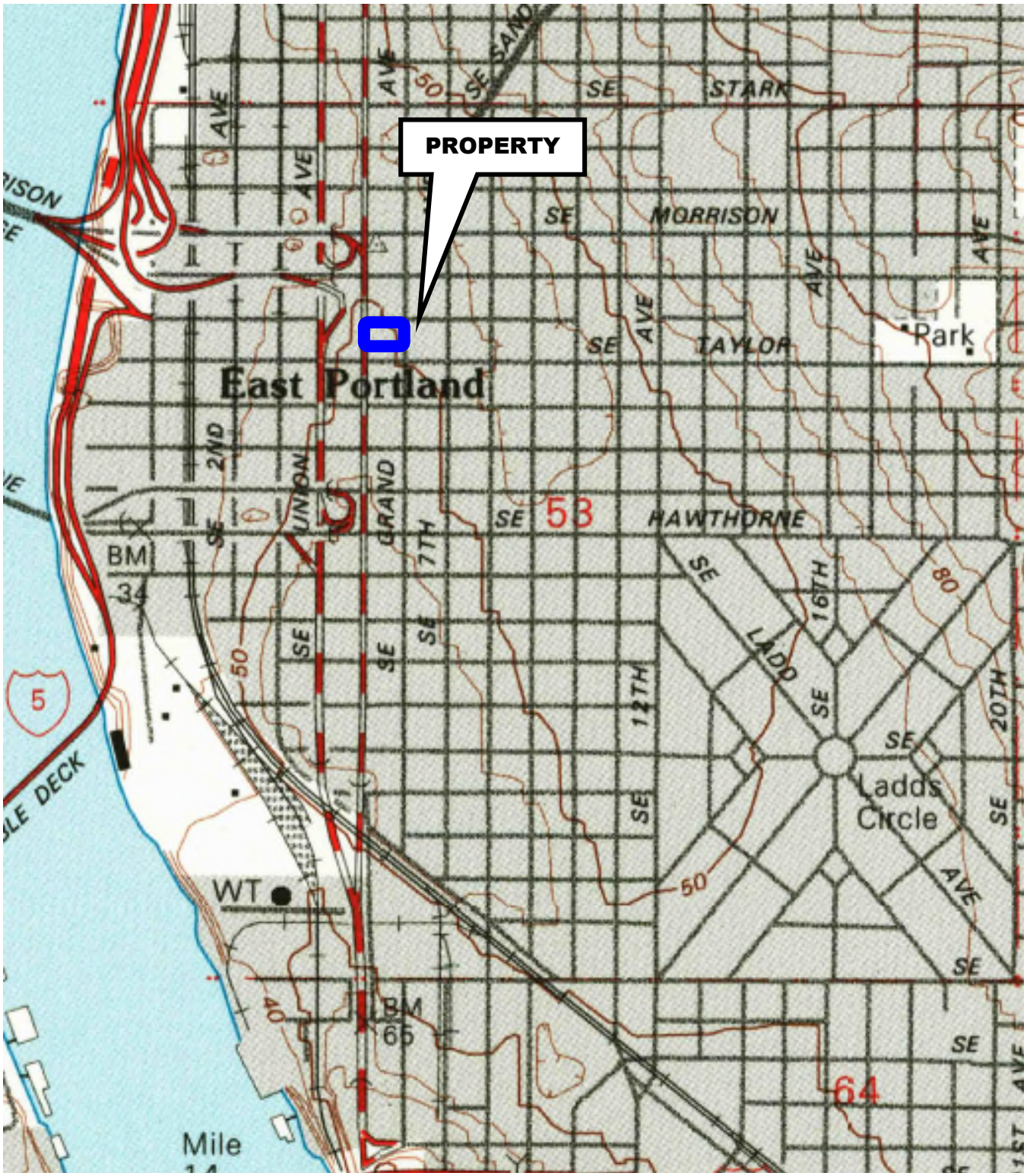


FIGURE 2 - TOPOGRAPHIC MAP

DRAWING NOT TO SCALE

Source: USGS 7.5 Minute Topographic Map
Portland, OR 1990

N↑

CHUGWATER, LLC
environmental due diligence

Site Name: **Arcoa Building**
1006 SE Grand Avenue
Portland, Oregon 97214

Project Number: CW130201.1

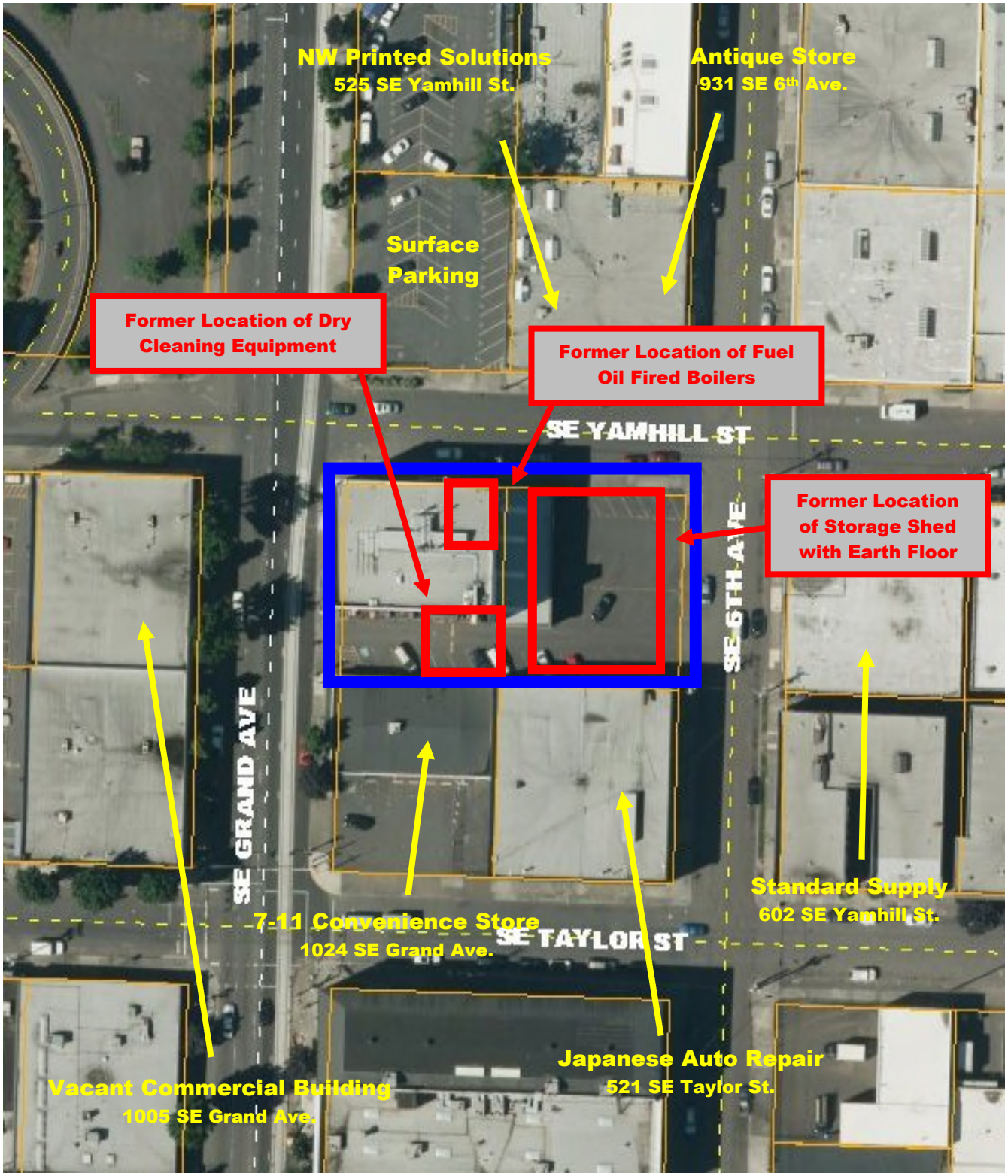


FIGURE 3 - SITE PLAN	**Map from PortlandMaps** N↑
CHUGWATER, LLC environmental due diligence	**Site Name:** Arcoa Building 1006 SE Grand Avenue Portland, Oregon 97214 **Project Number:** CW130201.1

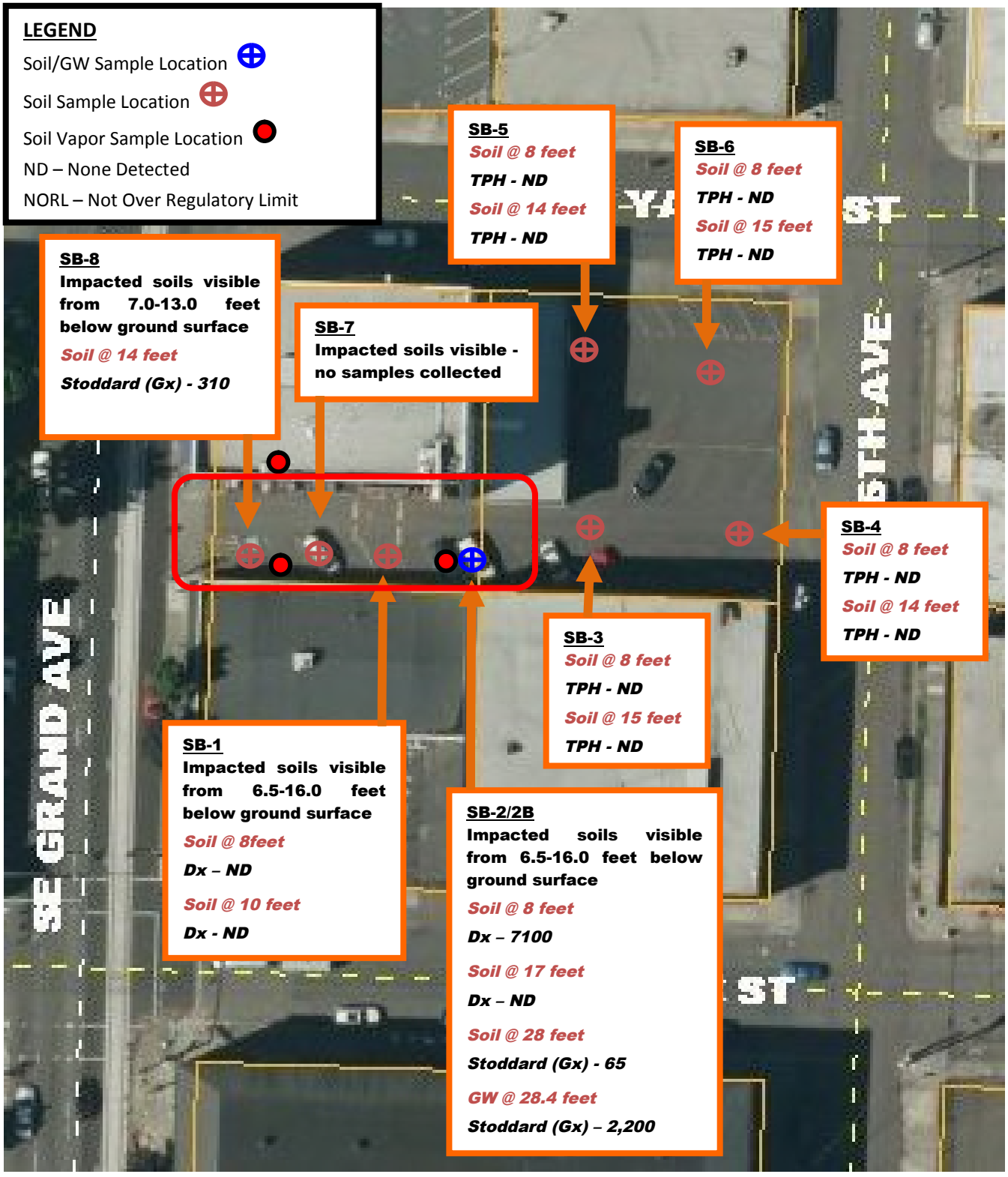


FIGURE 4 – BORING LOCATIONS

Image From PortlandMaps 2011

N

CHUGWATER, LLC
environmental due diligence

Site Name: Arcoa Building
1006 SE Grand Avenue
Portland, Oregon 97214

Project Number: CW130201.1

APPENDICES

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

APPENDIX I

SOIL BORING LOGS

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB1

PROJECT: Arcoa Building		**DATE:** 12-15-12		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 20.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	30”			0.0-1.0 feet Asphalt and gravel base 1.0-4.0 feet Silt, clayey, red-brown	0 0
4.0’-8.0’	48”	8.0’	SB1-S1	4.0-7.5 feet Silt, clayey, red-brown 7.5-8.0 feet Silt, grey stain, odor	0 0
8.0’-12.0’	48”			8.0-12.0 feet Silt, grey stain, odor	0
12.0’-16.0’	48”			12.0-16.0 feet Silt, grey stain, odor	0
16.0’-20.0’	48”	17.0’	SB1-S2	16.0-17.0 feet Silt, grey stain, odor 17.0-16.0 feet Gravel, coarse sand matrix, clean, dry	0 0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB2

PROJECT: Arcoa Building		**DATE:** 12-15-12		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 22.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	30”			0.0-1.0 feet Asphalt and gravel base 1.0-4.0 feet Silt, clayey, red-brown	0 0
4.0’-8.0’	48”	8.0’	SB2-S1	4.0-7.5 feet Silt, clayey, red-brown 7.5-8.0 feet Silt, grey stain, odor	0 0
8.0’-12.0’	48”			8.0-12.0 feet Silt, grey stain, odor	0
12.0’-16.0’	48”			12.0-16.0 feet Silt, grey stain, odor	0
16.0’-20.0’	24”	17.0’	SB2-S2	16.0-17.0 feet Silt, grey stain, odor 17.0-16.0 feet Gravel, coarse sand matrix, clean, dry	0 0
20.0’-22.0’	24”			20.0-22.0 feet Gravel, coarse sand matrix, clean, dry	0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB2B

PROJECT: Arcoa Building		**DATE:** 2-15-13		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** 28.4’	**STATIC WL:** 28.0’	**TD:** 32.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-20.0’	NA			NO SAMPLES COLLECTED	
20.0’-24.0’	48”			20.0-24.0 feet Gravel, coarse sand matrix, clean, dry	0
24.0’-28.0’	48”	28.0’	SB2B-S1	24.0-27.5 feet Gravel, coarse sand matrix, clean, dry 27.5-28.0 feet Sand, medium grain, tan	0 0
28.0’-32.0’	48”	28.5.0’	SB2B-W1	28.0-29.5 feet Sand, medium grain, tan 29.5-32.0 feet Gravel, coarse sand matrix, wet	0 0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB3

PROJECT: Arcoa Building		**DATE:** 12-15-12		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 20.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	36”			0.0-1.0 feet Asphalt and gravel base 1.0-3.0 feet Urban fill-brick, wood, glass 3.0-4.0 feet Silt, clayey, red-brown	0 0 0
4.0’-8.0’	48”			4.0-8.0 feet Silt, mottled, red-brown	0
8.0’-12.0’	48”	8.0’	SB3-S1	8.0-12.0 feet Silt, mottled, red-brown	0
12.0’-16.0’	48”	15.0’	SB3-S2	12.0-14.0 feet Silt, mottled, red-brown 14.0-16.0 feet Silt with fine sand, mottled, tan	0 0
16.0’-20.0’	48”			16.0-20.0 feet Gravel, coarse sand matrix, dry	0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB4

PROJECT: Arcoa Building		**DATE:** 12-15-12		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 20.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	36”			0.0-1.0 feet Asphalt and gravel base 1.0-3.0 feet Urban fill-brick, wood, glass 3.0-4.0 feet Silt, clayey, red-brown	0 0 0
4.0’-8.0’	48”			4.0-8.0 feet Silt, mottled, red-brown	0
8.0’-12.0’	48”	8.0’	SB4-S1	8.0-12.0 feet Silt, mottled, red-brown	0
12.0’-16.0’	48”	14.0’	SB4-S2	12.0-15.0 feet Silt, mottled, red-brown 15.0-16.0 feet Gravel, coarse sand matrix, dry	0 0
16.0’-20.0’	48”			16.0-20.0 feet Gravel, coarse sand matrix, dry	0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB5

PROJECT: Arcoa Building		**DATE:** 12-15-12		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 20.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	36”			0.0-1.0 feet Asphalt and gravel base 1.0-3.0 feet Urban fill-brick, wood, glass 3.0-4.0 feet Silt, clayey, red-brown	0 0 0
4.0’-8.0’	48”			4.0-8.0 feet Silt, mottled, red-brown	0
8.0’-12.0’	48”	8.0’	SB5-S1	8.0-12.0 feet Silt, mottled, red-brown	0
12.0’-16.0’	48”	14.0’	SB5-S2	12.0-15.0 feet Silt, mottled, red-brown 15.0-16.0 feet Gravel, coarse sand matrix, dry	0 0
16.0’-20.0’	48”			16.0-20.0 feet Gravel, coarse sand matrix, dry	0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB6

PROJECT: Arcoa Building		**DATE:** 12-15-12		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 20.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	36”			0.0-1.0 feet Asphalt and gravel base 1.0-3.0 feet Urban fill-brick, wood, glass 3.0-4.0 feet Silt, clayey, red-brown	0 0 0
4.0’-8.0’	48”			4.0-8.0 feet Silt, mottled, red-brown	0
8.0’-12.0’	48”	8.0’	SB6-S1	8.0-12.0 feet Silt, mottled, red-brown	0
12.0’-16.0’	48”	15.0’	SB6-S2	12.0-14.0 feet Silt, mottled, red-brown 14.0-16.0 feet Silt with fine sand, mottled, tan	0 0
16.0’-20.0’	48”			16.0-20.0 feet Gravel, coarse sand matrix, dry	0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB7

PROJECT: Arcoa Building		**DATE:** 2-15-13		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 8.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	36”			0.0-1.0 feet Asphalt and gravel base 1.0-3.5 feet Urban fill-brick, wood, glass 3.5-4.0 feet Gravel, rounded	0 0 0
4.0’-8.0’	48”			4.0-5.0 feet Gravel, rounded 5.0-7.5 feet Silt, clayey, red-brown 7.5-8.0 feet Silt, grey stain, odor	0 0 0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB8

PROJECT: Arcoa Building		**DATE:** 2-15-13		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** NA	**TD:** 22.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	32”			0.0-1.0 feet Asphalt and gravel base 1.0-3.5 feet Urban fill-brick, wood, glass 1.0-4.0 feet Silt, clayey, red-brown	0 0 0
4.0’-8.0’	48”			4.0-8.0 feet Silt, clayey, red-brown	0
8.0’-12.0’	48”			8.0-9.0 feet Silt, clayey, red-brown 9.0-14.0 feet Silt, grey stain, odor	0 0
12.0’-16.0’	48”	14.0’	SB8-S1	12.0-13.0 feet Silt, grey stain, odor 13.0-15.5 feet Sand, fine grain, some gravel, slight odor 15.5-16.0 feet Gravel, coarse sand matrix, clean, dry	0 0 0
16.0’-20.0’	30”			16.0-20.0 feet Gravel, coarse sand matrix, clean, dry	0
20.0’-22.0’	24”			20.0-22.0 feet Gravel, coarse sand matrix, clean, dry	0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

BORING SB9

PROJECT: Arcoa Building		**DATE:** 2-15-13		
CLIENT: Vince Huffstutter		**DRILLED BY:** ESN Northwest		
LOCATION: 1006 SE Grand Avenue Portland, Oregon		**BORING METHOD:** Push Probe		
GEOLOGIST: Gil Cobb		**SAMPLING METHOD:** Continuous		
ELEV. GL: NA	**ELEV. TOC:** NA	**INITIAL WL:** NA	**STATIC WL:** 5.5’	**TD:** 1.0’

DEPTH FEET	CORE REC	SAMPLE DEPTH	SAMPLE ID	SAMPLE/CORE DESCRIPTION	PID (PPM)
0-4.0’	12”	1.0’	SB9-S1	0.0-0.5 feet Concrete 0.5-1.0 feet Sand Fill	0 0

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

APPENDIX II

LABORATORY ANALYTICAL REPORTS

December 15, 2012
February 15, 2013

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Chemwatch LLC

ADDRESS: 10445 SW Canyon Rd, Ste 101 Beaverton, OR

PHONE: 503.916.9254 FAX: 503.352.0920

CLIENT PROJECT #: CW121203.1 PROJECT MANAGER: G. Cobb

DATE: 12/05/12 PAGE 1 OF 1

PROJECT NAME: Arcola Blvd

LOCATION: 10006 SE Grand, PDX

COLLECTOR: G. Cobb DATE OF COLLECTION 12/5

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite	NOTES	Total Number of Containers	Laboratory Note Number
1. SB2-S1	8	847	S	4oz	X				X					X									1	
2. SB2-S2	17	931	S	4oz	X				X					X									1	
3. SB1-S1	8	1022	S	4oz	X				X					X									1	
4. SB1-S2	17	1032	S	4oz	X				X					X									1	
5. SB3-S1	8	1043	S	4oz	X				X					X									1	
6. SB3-S2	15'	1114	S	4oz	X				X					X									1	
7. SB4-S1	8'	1131	S	4oz	X				X					X									1	
8. SB4-S2	14'	1135	S	4oz	X				X					X									1	
9. SB5-S1	8'	1235	S	4oz	X				X					X									1	
10. SB5-S2	14	1240	S	4oz	X				X					X									1	
11. SB6-S1	8'	102	S	4oz	X				X					X									1	
12. SB6-S2	15'	112	S	4oz	X				X					X									1	
13.																								
14.																								
15.																								
16.																								
17.																								
18.																								

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	12/5/12 1330	[signature] SDCC	1339 12
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR (5 DAY)

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil
by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	12/7/2012	12/7/2012	108	nd	nd
LCS	12/7/2012	12/7/2012	115	126%	---
SB2-S1	12/7/2012	12/7/2012	int	**7100**	nd
SB2-S2	12/7/2012	12/7/2012	113	nd	nd
SB1-S1	12/7/2012	12/7/2012	92	nd	nd
SB1-S2	12/7/2012	12/7/2012	105	nd	nd
SB3-S1	12/7/2012	12/7/2012	118	nd	nd
SB3-S2	12/7/2012	12/7/2012	111	nd	nd
SB4-S1	12/7/2012	12/7/2012	115	nd	nd
SB4-S2	12/7/2012	12/7/2012	111	nd	nd
SB5-S1	12/7/2012	12/8/2012	105	nd	nd
SB5-S2	12/7/2012	12/8/2012	110	nd	nd
SB5-S2 Duplicate	12/7/2012	12/8/2012	106	nd	nd
SB6-S1	12/8/2012	12/8/2012	80	nd	nd
SB6-S2	12/8/2012	12/8/2012	104	nd	nd
SB6-S2 Duplicate	12/8/2012	12/8/2012	104	nd	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	MTH BLK	LCS	LCSD	SB2-S1	SB2-S2	SB1-S1	SB1-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/11/12	12/12/12	12/12/12	12/11/12	12/11/12	12/11/12	12/12/12
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.05	nd			nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
Acetone	0.25	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	98%	116%	**0.05**	nd	nd	nd
Methylene chloride	0.02	nd			**2.6**	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	91%	92%	**2.7**	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			**2.5**	nd	nd	nd
1,1-Dichloropropene	0.05	nd			**0.15**	nd	nd	nd
Carbon tetrachloride	0.05	nd	105%	113%	nd	nd	nd	nd
Benzene	0.02	nd	94%	99%	**93**	nd	**0.13**	nd
Trichloroethene (TCE)	0.02	nd	96%	101%	**1.1**	nd	nd	nd
1,2-Dichloropropane	0.05	nd			**1,000**	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	89%	97%	**40**	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	94%	100%	**8.6**	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	83%	87%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	84%	84%	**18**	nd	**0.76**	nd
Xylenes	0.15	nd	83%	85%	**170**	nd	**2.1**	nd
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			**27**	nd	**1.5**	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	MTH BLK	LCS	LCSD	SB2-S1	SB2-S2	SB1-S1	SB1-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/11/12	12/12/12	12/12/12	12/11/12	12/11/12	12/11/12	12/12/12
Bromobenzene	0.05	nd			nd	nd	nd	nd
n-Propylbenzene	0.05	nd			**70**	nd	**4.4**	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			**150**	nd	**8.4**	nd
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			**310**	**0.06**	**16**	nd
sec-Butylbenzene	0.05	nd			**56**	nd	**4.0**	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			**84**	nd	**5.5**	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Naphthalene	0.10	nd			**12**	nd	**0.14**	nd
Hexachloro-1,3-butadiene	0.10	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		101%	111%	111%	106%	105%	110%	111%
Toluene-d8		110%	99%	100%	107%	113%	122%	106%
4-Bromofluorobenzene		123%	109%	106%	118%	116%	122%	118%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

ESN Pacific
PROJECT
Client Project #D1212060626
Hawaii

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	SB3-S1	SB3-S2	SB4-S1	SB4-S2	SB5-S1	SB5-S2	SB6-S1	SB6-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Acetone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Xylenes	0.15	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd

ESN NORTHWEST CHEMISTRY LABORATORY

ESN Pacific
PROJECT
Client Project #D1212060626
Hawaii

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	SB3-S1	SB3-S2	SB4-S1	SB4-S2	SB5-S1	SB5-S2	SB6-S1	SB6-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12
Bromobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
n-Propylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	0.10	nd	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		109%	109%	108%	109%	107%	111%	107%	113%
Toluene-d8		107%	109%	108%	106%	112%	112%	109%	110%
4-Bromofluorobenzene		113%	119%	122%	115%	117%	119%	116%	114%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Total Metals in Soil by EPA-6020 Series

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Arsenic (As) (mg/kg)	Silver (Ag) (mg/kg)	Barium (Ba) (mg/kg)	Selenium (Se) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	12/10/2012	nd	nd	nd	nd	nd	nd	nd	nd
SB2-S1	12/10/2012	**11**	nd	**14**	nd	nd	**120**	nd	nd
SB2-S2	12/10/2012	nd	nd	**5.3**	nd	nd	**110**	nd	nd
SB1-S1	12/10/2012	**9.4**	nd	**13**	nd	nd	**152**	nd	nd
SB1-2	12/10/2012	nd	nd	**6.4**	nd	nd	**75**	nd	nd
SB3-S1	12/10/2012	**8.8**	nd	**8.9**	nd	nd	**78**	nd	nd
SB3-S1 Duplicate	12/10/2012	**10**	nd	**9.7**	nd	nd	**110**	nd	nd
SB3-S2	12/10/2012	**5.3**	nd	**5.8**	nd	nd	**120**	nd	nd
SB4-S1	12/10/2012	**12**	nd	**8.5**	nd	nd	**120**	nd	nd
SB4-S2	12/10/2012	**8.2**	nd	**9.6**	nd	nd	**110**	nd	nd
SB5-S1	12/10/2012	**11**	nd	**7.8**	nd	nd	**110**	nd	nd
SB5-S2	12/10/2012	**6.9**	nd	**6.8**	nd	nd	**94**	nd	nd
SB6-S1	12/10/2012	**7.6**	nd	**8.1**	nd	nd	**98**	nd	nd
SB6-S1 Duplicate	12/10/2012	**8.5**	nd	**9.5**	nd	nd	**101**	nd	nd
SB6-S2	12/10/2012	**5.1**	nd	nd	nd	nd	**92**	nd	nd
Reporting Limits		5.0	1.0	5.0	5.0	20	50	20	0.5

"nd" Indicates not detected at listed detection limits.

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Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

QA/QC Data - Total Metals EPA-6020

Sample Number: SB3-S1

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead	71.4	79.1	111	73.5	85.0	116	4.3
Cadmium	71.4	78.7	110	73.5	83.2	113	2.7
Chromium	71.4	76.0	106	73.5	80.5	109	2.9
Arsenic	71.4	79.7	112	73.5	84.1	114	2.5
Silver	71.4	71.2	99.7	73.5	76.3	104	4.0
Barium	71.4	84.7	119	73.5	93.7	127M	7.2
Selenium	71.4	79.3	111	73.5	83.1	113	1.8
Mercury	7.14	8.06	113	7.35	8.59	117	3.5

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead	100	104	104
Cadmium	100	106	106
Chromium	100	94.8	94.8
Arsenic	100	107	107
Silver	100	98.5	98.5
Barium	100	102	102
Selenium	100	110	110
Mercury	10	10.7	107

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%
ACCEPTABLE RPD IS 35%
M - Matrix Spike recovery failed due to matrix interference.

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: CHAMPION LLC

ADDRESS: 10445 SW CANYON RD, STE 101 BEAVERTON 97005

PHONE: 503.916.9254 FAX: 503.352.0920

CLIENT PROJECT #: _____ PROJECT MANAGER: G. Cobb

DATE: 2/15/2013 PAGE _____ OF _____

PROJECT NAME: ARLOA BLDG

LOCATION: 1006 SE GRAND, PORTLAND

COLLECTOR: G. COBB DATE OF COLLECTION 2/15

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite	STODDARD	NOTES	Total Number of Containers	Laboratory Note Number
1. SB2B-S1	28'	951	S	403		X			X													X		1	
2. SB2-W1	28'	1157	W	VOA-Am		X			X													X		3	
3. SB8-S1	14'	306	S	403		X	X		X													X		1	
4. SB9-S1	2'	329	S	403					X																
5.																									
6.																									
7.																									
8.																									
9.																									
10.																									
11.																									
12.																									
13.																									
14.																									
15.																									
16.																									
17.																									
18.																									

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	2/15/13 354	[signature]	15FEB13 1600
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR (5 DAY)

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	2/20/2013	2/20/2013	98	nd	nd
LCS	2/20/2013	2/20/2013	130	116%	---
SB2B-S1	2/20/2013	2/20/2013	92	nd	nd
SB2B-S1 Duplicate	2/20/2013	2/20/2013	97	nd	nd
SB8-S1	2/20/2013	2/20/2013	66	nd	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	2/18/2013	2/18/2013	75	nd	nd
LCS	2/18/2013	2/18/2013	118	95%	---
SB2-W1	2/18/2013	2/18/2013	72	nd	nd
Reporting Limits				250	500

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	2/18/2013	2/20/2013	105	nd
LCS	2/18/2013	2/20/2013	111	103%
SB8-S1	2/18/2013	2/20/2013	113	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil
by EPA Method 8260C/5035A

Analytical Results

Matrix	Reporting	MTH BLK Soil	LCS Soil	LCSD Soil	SB2B-S1 Soil	SB8-S1 Soil	SB9-S1 Soil
Date extracted	Limits	02/18/13	02/18/13	02/18/13	02/18/13	02/18/13	02/18/13
Date analyzed	(mg/kg)	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13
Dichlorodifluoromethane	0.05	nd			nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd
Vinyl chloride	0.05	nd	159%	143%	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd
1,1-Dichloroethene	0.05	nd	139%	139%	nd	nd	nd
Methylene chloride	0.02	nd			nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd
Chloroform	0.05	nd	127%	122%	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd
Trichloroethene (TCE)	0.02	nd	132%	124%	nd	nd	nd
1,2-Dichloropropane	0.05	nd	115%	109%	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	110%	112%	**0.03**	nd	nd
Chlorobenzene	0.05	nd			nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd
1,2,4-Trichlorobenzene	0.10	nd			nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd			nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd			nd	nd	nd
Surrogate recoveries							
Dibromofluoromethane		98%	107%	107%	102%	107%	110%
Toluene-d8		106%	96%	98%	103%	107%	107%
4-Bromofluorobenzene		115%	100%	99%	114%	112%	112%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Water by Method 8260

Analytical Results

	RL	MB	LCS	LCSD	SB2-W1	TRIP BLANK
Date analyzed	(ug/L)	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13
Dichlorodifluoromethane	1.0	nd			nd	nd
Chloromethane	1.0	nd			nd	nd
Vinyl chloride	0.2	nd	80%	75%	nd	nd
Chloroethane	1.0	nd			nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd
1,1-Dichloroethene	1.0	nd	115%	101%	nd	nd
Methylene chloride	1.0	nd			nd	nd
trans-1,2-Dichloroethene	1.0	nd			nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd
cis-1,2-Dichloroethene	1.0	nd			**1.6**	nd
2,2-Dichloropropane	1.0	nd			nd	nd
Chloroform	1.0	nd	130%	115%	**35**	nd
Bromochloromethane	1.0	nd			nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd
Carbon tetrachloride	1.0	nd			nd	nd
Trichloroethene (TCE)	1.0	nd	133%	117%	**5.1**	nd
1,2-Dichloropropane	1.0	nd	125%	119%	**101**	nd
Bromodichloromethane	1.0	nd			nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd
Dibromochloromethane	1.0	nd			nd	nd
Tetrachloroethene (PCE)	1.0	nd	122%	109%	**53**	nd
Chlorobenzene	1.0	nd	126%	112%	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd
2-Chlorotoluene	1.0	nd			nd	nd
4-Chlorotoluene	1.0	nd			nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd
Hexachloro-1,3-butadiene	1.0	nd			nd	nd
1,2,3-Trichlorobenzene	1.0	nd			nd	nd
Surrogate recoveries						
Dibromofluoromethane		110%	103%	104%	114%	106%
Toluene-d8		101%	98%	97%	99%	97%
4-Bromofluorobenzene		104%	103%	101%	111%	101%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Stoddard Solvent Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Stoddard Solvent Range Organics (mg/kg)
Method Blank	2/18/2013	2/20/2013	105	nd
LCS	2/18/2013	2/20/2013	111	103%
SB2B-S1	2/18/2013	2/20/2013	114	**65**
SB8-S1	2/18/2013	2/20/2013	113	**310**
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analyses of Stoddard Solvent Range Organics in Water by Method NWTPH-Gx

Sample Number	Date Analyzed	Surrogate Recovery (%)	Stoddard Solvent Range Organics (ug/L)
Method Blank	2/20/2013	106%	nd
LCS	2/20/2013	103%	89%
SB2-W1	2/20/2013	114%	**2200**
Reporting Limits			100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

eurofins | Air Toxics

WORK ORDER #: 1302334

Work Order Summary

CLIENT:	Mr. Steve League ESN Northwest 1210 Eastside St SE Suite 200 Olympia, WA 98501	**BILL TO:**	Mr. Steve League ESN Northwest 1210 Eastside St SE Suite 200 Olympia, WA 98501
PHONE:	360-459-4670	**P.O. #**	P13021508
FAX:	360-4595-3432	**PROJECT #**	ARCOA BLVD
DATE RECEIVED:	02/19/2013	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/04/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV1-Arcoa	Modified TO-15	24.0 "Hg	15 psi
02A	SV2-Arcoa	Modified TO-15	1.0 "Hg	15 psi
03A	SV3-Arcoa	Modified TO-15	4.0 "Hg	15 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA
06AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 03/04/13

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
ESN Northwest
Workorder# 1302334

Three 1 Liter Summa Canister samples were received on February 19, 2013. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Sample SV1-Arcoa was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

Dilution was performed on all of the samples due to the presence of high level target species.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV1-Arcoa

Lab ID#: 1302334-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	50	180	110	400
2-Propanol	200	360	500	890
Hexane	50	100	180	370
Chloroform	50	50	250	240
Cyclohexane	50	300	170	1000
Benzene	50	3000	160	9500
1,2-Dichloroethane	50	70	200	280
Heptane	50	390	210	1600
Trichloroethene	50	430	270	2300
1,2-Dichloropropane	50	7500	230	35000
Toluene	50	350	190	1300
Tetrachloroethene	50	1500	340	10000
Ethyl Benzene	50	960	220	4200
m,p-Xylene	50	5200	220	22000
o-Xylene	50	3500	220	15000
Cumene	50	1200	250	6000
Propylbenzene	50	2200	250	11000
4-Ethyltoluene	50	7400	250	36000
1,3,5-Trimethylbenzene	50	5000	250	24000
1,2,4-Trimethylbenzene	50	11000	250	54000

Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	4.2	9.0	9.2	20
Acetone	42	47	99	110
Chloroform	4.2	7.4	20	36
Cyclohexane	4.2	7.2	14	25
Carbon Tetrachloride	4.2	5.5	26	34
Benzene	4.2	21	13	66
Heptane	4.2	30	17	120
Trichloroethene	4.2	11	22	62

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

Toluene	4.2	9.0	16	34
Tetrachloroethene	4.2	320	28	2200
Ethyl Benzene	4.2	5.6	18	24
m,p-Xylene	4.2	37	18	160
o-Xylene	4.2	32	18	140
Cumene	4.2	20	20	98
Propylbenzene	4.2	99	20	480
4-Ethyltoluene	4.2	230	20	1200
1,3,5-Trimethylbenzene	4.2	230	20	1100
1,2,4-Trimethylbenzene	4.2	560	20	2800

Client Sample ID: SV3-Arcoa

Lab ID#: 1302334-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	120	130	280	310
Hexane	12	20	41	71
cis-1,2-Dichloroethene	12	21	46	84
Chloroform	12	3900	57	19000
Carbon Tetrachloride	12	280	73	1800
Trichloroethene	12	12	63	66
Tetrachloroethene	12	59	79	400
1,2,4-Trimethylbenzene	12	16	57	78

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Client Sample ID: SV1-Arcoa

Lab ID#: 1302334-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022606**	**Date of Collection:**	**2/15/13 12:40:00 PM**
Dil. Factor:	**101**	**Date of Analysis:**	**2/26/13 11:59 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	50	Not Detected	250	Not Detected
Freon 114	50	Not Detected	350	Not Detected
Chloromethane	500	Not Detected	1000	Not Detected
Vinyl Chloride	50	Not Detected	130	Not Detected
1,3-Butadiene	50	180	110	400
Bromomethane	500	Not Detected	2000	Not Detected
Chloroethane	200	Not Detected	530	Not Detected
Freon 11	50	Not Detected	280	Not Detected
Ethanol	200	Not Detected	380	Not Detected
Freon 113	50	Not Detected	390	Not Detected
1,1-Dichloroethene	50	Not Detected	200	Not Detected
Acetone	500	Not Detected	1200	Not Detected
2-Propanol	200	360	500	890
Carbon Disulfide	200	Not Detected	630	Not Detected
3-Chloropropene	200	Not Detected	630	Not Detected
Methylene Chloride	500	Not Detected	1800	Not Detected
Methyl tert-butyl ether	50	Not Detected	180	Not Detected
trans-1,2-Dichloroethene	50	Not Detected	200	Not Detected
Hexane	50	100	180	370
1,1-Dichloroethane	50	Not Detected	200	Not Detected
2-Butanone (Methyl Ethyl Ketone)	200	Not Detected	600	Not Detected
cis-1,2-Dichloroethene	50	Not Detected	200	Not Detected
Tetrahydrofuran	50	Not Detected	150	Not Detected
Chloroform	50	50	250	240
1,1,1-Trichloroethane	50	Not Detected	280	Not Detected
Cyclohexane	50	300	170	1000
Carbon Tetrachloride	50	Not Detected	320	Not Detected
2,2,4-Trimethylpentane	50	Not Detected	240	Not Detected
Benzene	50	3000	160	9500
1,2-Dichloroethane	50	70	200	280
Heptane	50	390	210	1600
Trichloroethene	50	430	270	2300
1,2-Dichloropropane	50	7500	230	35000
1,4-Dioxane	200	Not Detected	730	Not Detected
Bromodichloromethane	50	Not Detected	340	Not Detected
cis-1,3-Dichloropropene	50	Not Detected	230	Not Detected
4-Methyl-2-pentanone	50	Not Detected	210	Not Detected
Toluene	50	350	190	1300
trans-1,3-Dichloropropene	50	Not Detected	230	Not Detected
1,1,2-Trichloroethane	50	Not Detected	280	Not Detected
Tetrachloroethene	50	1500	340	10000
2-Hexanone	200	Not Detected	830	Not Detected

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Client Sample ID: SV1-Arcoa

Lab ID#: 1302334-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022606**	**Date of Collection: 2/15/13 12:40:00 PM**	
Dil. Factor:	**101**	**Date of Analysis: 2/26/13 11:59 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	50	Not Detected	430	Not Detected
1,2-Dibromoethane (EDB)	50	Not Detected	390	Not Detected
Chlorobenzene	50	Not Detected	230	Not Detected
Ethyl Benzene	50	960	220	4200
m,p-Xylene	50	5200	220	22000
o-Xylene	50	3500	220	15000
Styrene	50	Not Detected	220	Not Detected
Bromoform	50	Not Detected	520	Not Detected
Cumene	50	1200	250	6000
1,1,2,2-Tetrachloroethane	50	Not Detected	350	Not Detected
Propylbenzene	50	2200	250	11000
4-Ethyltoluene	50	7400	250	36000
1,3,5-Trimethylbenzene	50	5000	250	24000
1,2,4-Trimethylbenzene	50	11000	250	54000
1,3-Dichlorobenzene	50	Not Detected	300	Not Detected
1,4-Dichlorobenzene	50	Not Detected	300	Not Detected
alpha-Chlorotoluene	50	Not Detected	260	Not Detected
1,2-Dichlorobenzene	50	Not Detected	300	Not Detected
1,2,4-Trichlorobenzene	200	Not Detected	1500	Not Detected
Hexachlorobutadiene	200	Not Detected	2200	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022607**	**Date of Collection: 2/15/13 1:36:00 PM**	
Dil. Factor:	**8.36**	**Date of Analysis: 2/26/13 12:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	Not Detected	21	Not Detected
Freon 114	4.2	Not Detected	29	Not Detected
Chloromethane	42	Not Detected	86	Not Detected
Vinyl Chloride	4.2	Not Detected	11	Not Detected
1,3-Butadiene	4.2	9.0	9.2	20
Bromomethane	42	Not Detected	160	Not Detected
Chloroethane	17	Not Detected	44	Not Detected
Freon 11	4.2	Not Detected	23	Not Detected
Ethanol	17	Not Detected	32	Not Detected
Freon 113	4.2	Not Detected	32	Not Detected
1,1-Dichloroethene	4.2	Not Detected	16	Not Detected
Acetone	42	47	99	110
2-Propanol	17	Not Detected	41	Not Detected
Carbon Disulfide	17	Not Detected	52	Not Detected
3-Chloropropene	17	Not Detected	52	Not Detected
Methylene Chloride	42	Not Detected	140	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	4.2	Not Detected	16	Not Detected
Hexane	4.2	Not Detected	15	Not Detected
1,1-Dichloroethane	4.2	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	17	Not Detected	49	Not Detected
cis-1,2-Dichloroethene	4.2	Not Detected	16	Not Detected
Tetrahydrofuran	4.2	Not Detected	12	Not Detected
Chloroform	4.2	7.4	20	36
1,1,1-Trichloroethane	4.2	Not Detected	23	Not Detected
Cyclohexane	4.2	7.2	14	25
Carbon Tetrachloride	4.2	5.5	26	34
2,2,4-Trimethylpentane	4.2	Not Detected	20	Not Detected
Benzene	4.2	21	13	66
1,2-Dichloroethane	4.2	Not Detected	17	Not Detected
Heptane	4.2	30	17	120
Trichloroethene	4.2	11	22	62
1,2-Dichloropropane	4.2	Not Detected	19	Not Detected
1,4-Dioxane	17	Not Detected	60	Not Detected
Bromodichloromethane	4.2	Not Detected	28	Not Detected
cis-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.2	Not Detected	17	Not Detected
Toluene	4.2	9.0	16	34
trans-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.2	Not Detected	23	Not Detected
Tetrachloroethene	4.2	320	28	2200
2-Hexanone	17	Not Detected	68	Not Detected

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Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022607**	**Date of Collection: 2/15/13 1:36:00 PM**	
Dil. Factor:	**8.36**	**Date of Analysis: 2/26/13 12:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	4.2	Not Detected	36	Not Detected
1,2-Dibromoethane (EDB)	4.2	Not Detected	32	Not Detected
Chlorobenzene	4.2	Not Detected	19	Not Detected
Ethyl Benzene	4.2	5.6	18	24
m,p-Xylene	4.2	37	18	160
o-Xylene	4.2	32	18	140
Styrene	4.2	Not Detected	18	Not Detected
Bromoform	4.2	Not Detected	43	Not Detected
Cumene	4.2	20	20	98
1,1,2,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
Propylbenzene	4.2	99	20	480
4-Ethyltoluene	4.2	230	20	1200
1,3,5-Trimethylbenzene	4.2	230	20	1100
1,2,4-Trimethylbenzene	4.2	560	20	2800
1,3-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,4-Dichlorobenzene	4.2	Not Detected	25	Not Detected
alpha-Chlorotoluene	4.2	Not Detected	22	Not Detected
1,2-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	120	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	116	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: SV3-Arcoa

Lab ID#: 1302334-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022608**	**Date of Collection: 2/15/13 2:48:00 PM**	
Dil. Factor:	**23.3**	**Date of Analysis: 2/26/13 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	58	Not Detected
Freon 114	12	Not Detected	81	Not Detected
Chloromethane	120	Not Detected	240	Not Detected
Vinyl Chloride	12	Not Detected	30	Not Detected
1,3-Butadiene	12	Not Detected	26	Not Detected
Bromomethane	120	Not Detected	450	Not Detected
Chloroethane	47	Not Detected	120	Not Detected
Freon 11	12	Not Detected	65	Not Detected
Ethanol	47	Not Detected	88	Not Detected
Freon 113	12	Not Detected	89	Not Detected
1,1-Dichloroethene	12	Not Detected	46	Not Detected
Acetone	120	130	280	310
2-Propanol	47	Not Detected	110	Not Detected
Carbon Disulfide	47	Not Detected	140	Not Detected
3-Chloropropene	47	Not Detected	140	Not Detected
Methylene Chloride	120	Not Detected	400	Not Detected
Methyl tert-butyl ether	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	12	Not Detected	46	Not Detected
Hexane	12	20	41	71
1,1-Dichloroethane	12	Not Detected	47	Not Detected
2-Butanone (Methyl Ethyl Ketone)	47	Not Detected	140	Not Detected
cis-1,2-Dichloroethene	12	21	46	84
Tetrahydrofuran	12	Not Detected	34	Not Detected
Chloroform	12	3900	57	19000
1,1,1-Trichloroethane	12	Not Detected	64	Not Detected
Cyclohexane	12	Not Detected	40	Not Detected
Carbon Tetrachloride	12	280	73	1800
2,2,4-Trimethylpentane	12	Not Detected	54	Not Detected
Benzene	12	Not Detected	37	Not Detected
1,2-Dichloroethane	12	Not Detected	47	Not Detected
Heptane	12	Not Detected	48	Not Detected
Trichloroethene	12	12	63	66
1,2-Dichloropropane	12	Not Detected	54	Not Detected
1,4-Dioxane	47	Not Detected	170	Not Detected
Bromodichloromethane	12	Not Detected	78	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	53	Not Detected
4-Methyl-2-pentanone	12	Not Detected	48	Not Detected
Toluene	12	Not Detected	44	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	53	Not Detected
1,1,2-Trichloroethane	12	Not Detected	64	Not Detected
Tetrachloroethene	12	59	79	400
2-Hexanone	47	Not Detected	190	Not Detected

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Client Sample ID: SV3-Arcoa

Lab ID#: 1302334-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022608**	**Date of Collection: 2/15/13 2:48:00 PM**	
Dil. Factor:	**23.3**	**Date of Analysis: 2/26/13 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	12	Not Detected	99	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	90	Not Detected
Chlorobenzene	12	Not Detected	54	Not Detected
Ethyl Benzene	12	Not Detected	50	Not Detected
m,p-Xylene	12	Not Detected	50	Not Detected
o-Xylene	12	Not Detected	50	Not Detected
Styrene	12	Not Detected	50	Not Detected
Bromoform	12	Not Detected	120	Not Detected
Cumene	12	Not Detected	57	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	80	Not Detected
Propylbenzene	12	Not Detected	57	Not Detected
4-Ethyltoluene	12	Not Detected	57	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	57	Not Detected
1,2,4-Trimethylbenzene	12	16	57	78
1,3-Dichlorobenzene	12	Not Detected	70	Not Detected
1,4-Dichlorobenzene	12	Not Detected	70	Not Detected
alpha-Chlorotoluene	12	Not Detected	60	Not Detected
1,2-Dichlorobenzene	12	Not Detected	70	Not Detected
1,2,4-Trichlorobenzene	47	Not Detected	340	Not Detected
Hexachlorobutadiene	47	Not Detected	500	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1302334-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 11:22 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1302334-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 11:22 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	85	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	87	70-130

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Client Sample ID: CCV

Lab ID#: 1302334-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 09:58 AM**	

Compound	%Recovery
Freon 12	99
Freon 114	96
Chloromethane	90
Vinyl Chloride	101
1,3-Butadiene	92
Bromomethane	95
Chloroethane	91
Freon 11	95
Ethanol	88
Freon 113	95
1,1-Dichloroethene	96
Acetone	91
2-Propanol	90
Carbon Disulfide	90
3-Chloropropene	93
Methylene Chloride	90
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	98
Hexane	96
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	109
Tetrahydrofuran	98
Chloroform	95
1,1,1-Trichloroethane	98
Cyclohexane	105
Carbon Tetrachloride	97
2,2,4-Trimethylpentane	100
Benzene	101
1,2-Dichloroethane	100
Heptane	111
Trichloroethene	93
1,2-Dichloropropane	107
1,4-Dioxane	128
Bromodichloromethane	103
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	115
Toluene	101
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	90
Tetrachloroethene	89
2-Hexanone	92

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Client Sample ID: CCV

Lab ID#: 1302334-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 09:58 AM**	

Compound	%Recovery
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	90
Chlorobenzene	94
Ethyl Benzene	107
m,p-Xylene	97
o-Xylene	100
Styrene	105
Bromoform	95
Cumene	102
1,1,2,2-Tetrachloroethane	117
Propylbenzene	109
4-Ethyltoluene	116
1,3,5-Trimethylbenzene	121
1,2,4-Trimethylbenzene	114
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: LCS

Lab ID#: 1302334-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:28 AM**	

Compound	%Recovery
Freon 12	102
Freon 114	101
Chloromethane	107
Vinyl Chloride	108
1,3-Butadiene	98
Bromomethane	99
Chloroethane	96
Freon 11	98
Ethanol	68 Q
Freon 113	98
1,1-Dichloroethene	106
Acetone	100
2-Propanol	92
Carbon Disulfide	117
3-Chloropropene	107
Methylene Chloride	93
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	114
Hexane	114
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	100
Tetrahydrofuran	95
Chloroform	97
1,1,1-Trichloroethane	100
Cyclohexane	110
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	102
Benzene	106
1,2-Dichloroethane	97
Heptane	106
Trichloroethene	84
1,2-Dichloropropane	99
1,4-Dioxane	117
Bromodichloromethane	106
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	104
Toluene	98
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	82
Tetrachloroethene	82
2-Hexanone	86

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1302334-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:28 AM**	

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	98
Chlorobenzene	93
Ethyl Benzene	100
m,p-Xylene	94
o-Xylene	92
Styrene	95
Bromoform	87
Cumene	94
1,1,2,2-Tetrachloroethane	93
Propylbenzene	89
4-Ethyltoluene	88
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	88
1,4-Dichlorobenzene	87
alpha-Chlorotoluene	89
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	95
Hexachlorobutadiene	91

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: LCSD

Lab ID#: 1302334-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:47 AM**	

Compound	%Recovery
Freon 12	94
Freon 114	95
Chloromethane	95
Vinyl Chloride	98
1,3-Butadiene	91
Bromomethane	90
Chloroethane	90
Freon 11	88
Ethanol	62 Q
Freon 113	91
1,1-Dichloroethene	96
Acetone	95
2-Propanol	86
Carbon Disulfide	106
3-Chloropropene	108
Methylene Chloride	86
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	104
Hexane	92
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	98
Tetrahydrofuran	101
Chloroform	98
1,1,1-Trichloroethane	93
Cyclohexane	102
Carbon Tetrachloride	92
2,2,4-Trimethylpentane	96
Benzene	100
1,2-Dichloroethane	95
Heptane	108
Trichloroethene	97
1,2-Dichloropropane	110
1,4-Dioxane	103
Bromodichloromethane	97
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	106
Toluene	99
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	102
Tetrachloroethene	98
2-Hexanone	92

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Client Sample ID: LCSD

Lab ID#: 1302334-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:47 AM**	

Compound	%Recovery
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	101
Chlorobenzene	96
Ethyl Benzene	105
m,p-Xylene	111
o-Xylene	112
Styrene	113
Bromoform	103
Cumene	114
1,1,2,2-Tetrachloroethane	112
Propylbenzene	108
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	113
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	110

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	103	70-130

Chugwater LLC
environmental due diligence services
phone: 503.916.9254 fax: 503.352.0920

APPENDIX III

GEOPHYSICAL REPORT

PACIFIC GEOPHYSICS
Applied Geophysics

GEOPHYSICAL SURVEY LETTER REPORT

Chugwater LLC
10445 SW Canyon Rd, Suite 101
Beaverton, OR 97005

December 4, 2012
Project Number: 121117

Geophysical Survey
Arcoa Building
1006 SE Grand Avenue
Portland, Oregon

This letter report briefly describes a geophysical survey conducted at the above address for the purpose of detecting a possible underground storage tank (UST) adjacent to an addition east of the original building. The building had been occupied by a dry cleaning business in the past. Also, six proposed sampling locations were to be “cleared” of underground obstructions.

A Geometrics G-858 Cesium magnetometer was used to scan the subsurface for buried ferrous objects that could be possible USTs. Data were collected along the SE Yamhill Street sidewalk and across the asphalt-covered parking lot east of the new addition. Reportedly the basement of the original building (west of the survey area) extended under the Yamhill Street sidewalk. No evidence of a UST was seen during the fieldwork.

Figure 1 shows a colored magnetic contour map of the data collected during the survey. The sides of the “new” addition were constructed of corrugated metal and produced significant magnetic interference. Part of the sidewalk was reinforced, and contributed to the interference.

A Schonstedt Magnetic Gradiometer and an Aqua-Tronics A6 Tracer metal detector were used to investigate several large magnetic “highs” (shown as red contours). No three-dimensional objects were detected. All of the anomalies appeared to be related to the metal-sided building and/or the sidewalk. No USTs were detected.

A GSSI SIR2000 ground penetrating radar (GPR) system coupled to a 400 MHz radar antenna, the 2 above mentioned hand-held metal detectors, and a Radio Detection RD8000 PDL were used to clear six proposed borehole locations south and east of the building.

Figure 2 accurately shows the locations of the cleared borings east of the building. Cars parked atop two additional cleared sampling locations in the south driveway before their coordinates were accurately measured. The locations shown in the figure for those points are estimates.

Jeff Mann and Nikos Tzetos of Pacific Geophysics conducted the survey for Mr. Gil Cobb of Chugwater on December 4, 2012. This report was written by Jeff Mann, reviewed by Nikos Tzetos, and sent to Mr. Cobb on December 7, 2012.

Additional information regarding geophysical surveys is included as an Appendix at the end of this report.

Limitations

The conclusions presented in this report were based upon widely-accepted geophysical principles, methods and equipment. This survey was conducted with limited knowledge of the site, the site history and the subsurface conditions.

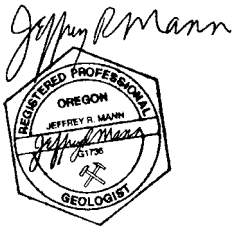
The goal of near-surface geophysics is to provide a rapid means of characterizing the subsurface using non-intrusive methods. Conclusions based upon these methods are generally reliable; however, due to the inherent ambiguity of the methods, no single interpretation of the data can be made. As an example, rocks and roots produce radar reflections that may appear the same as pipes and tanks.

Under reasonable site conditions, geophysical surveys are good at detecting changes in the subsurface caused by manmade objects or changes in subsurface conditions, but they are poor at identifying those objects or subsurface conditions.

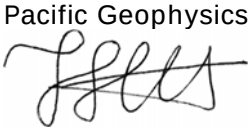
Objects of interest are not always detectable due to surface and subsurface conditions. The deeper an object is buried, the more difficult it is to detect, and the less accurately it can be located.

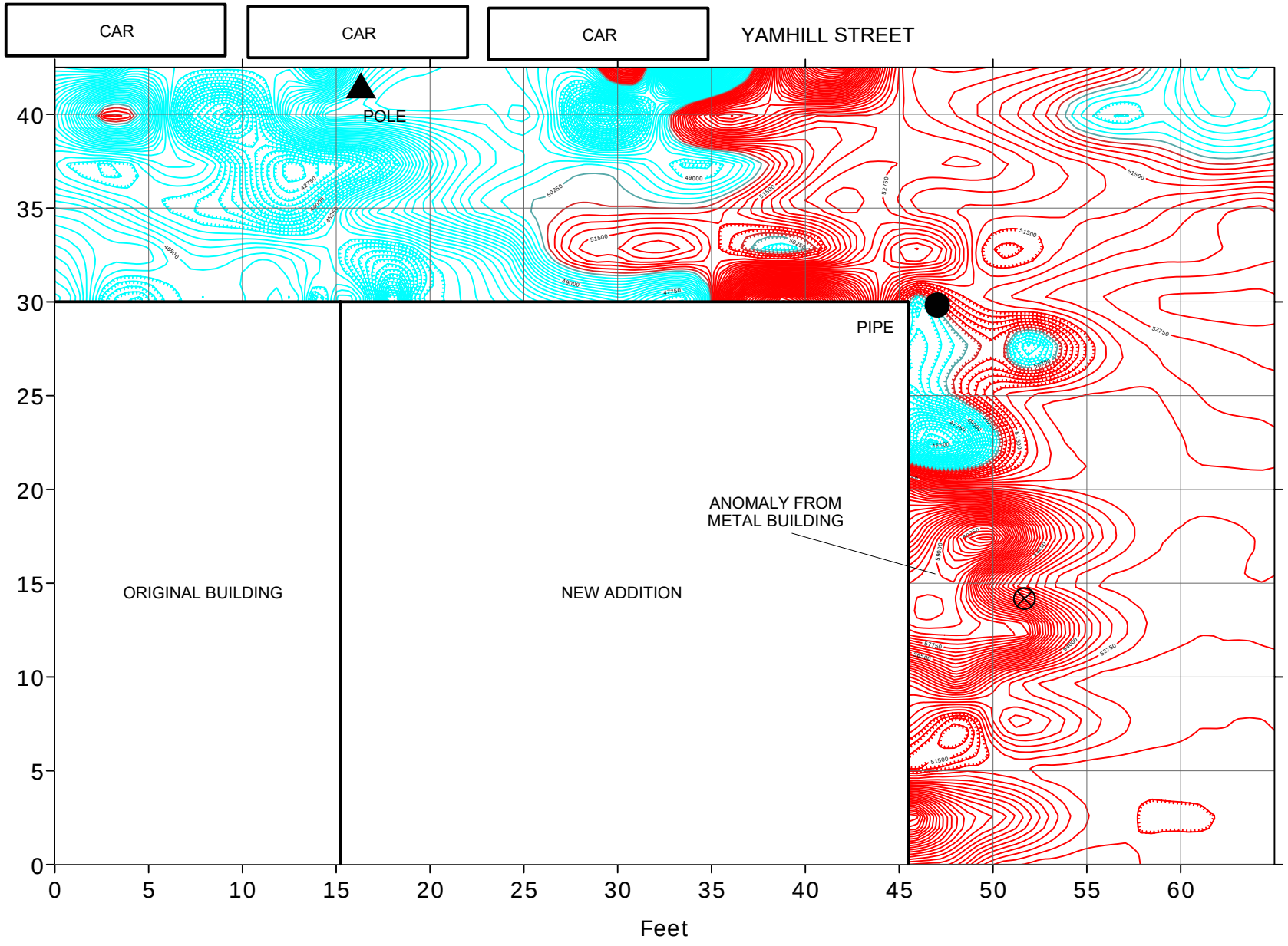
The only way to see an object is to physically expose it.

Jeff Mann — December 4, 2012
Pacific Geophysics



Nikos Tzetos — December 4, 2012
Pacific Geophysics



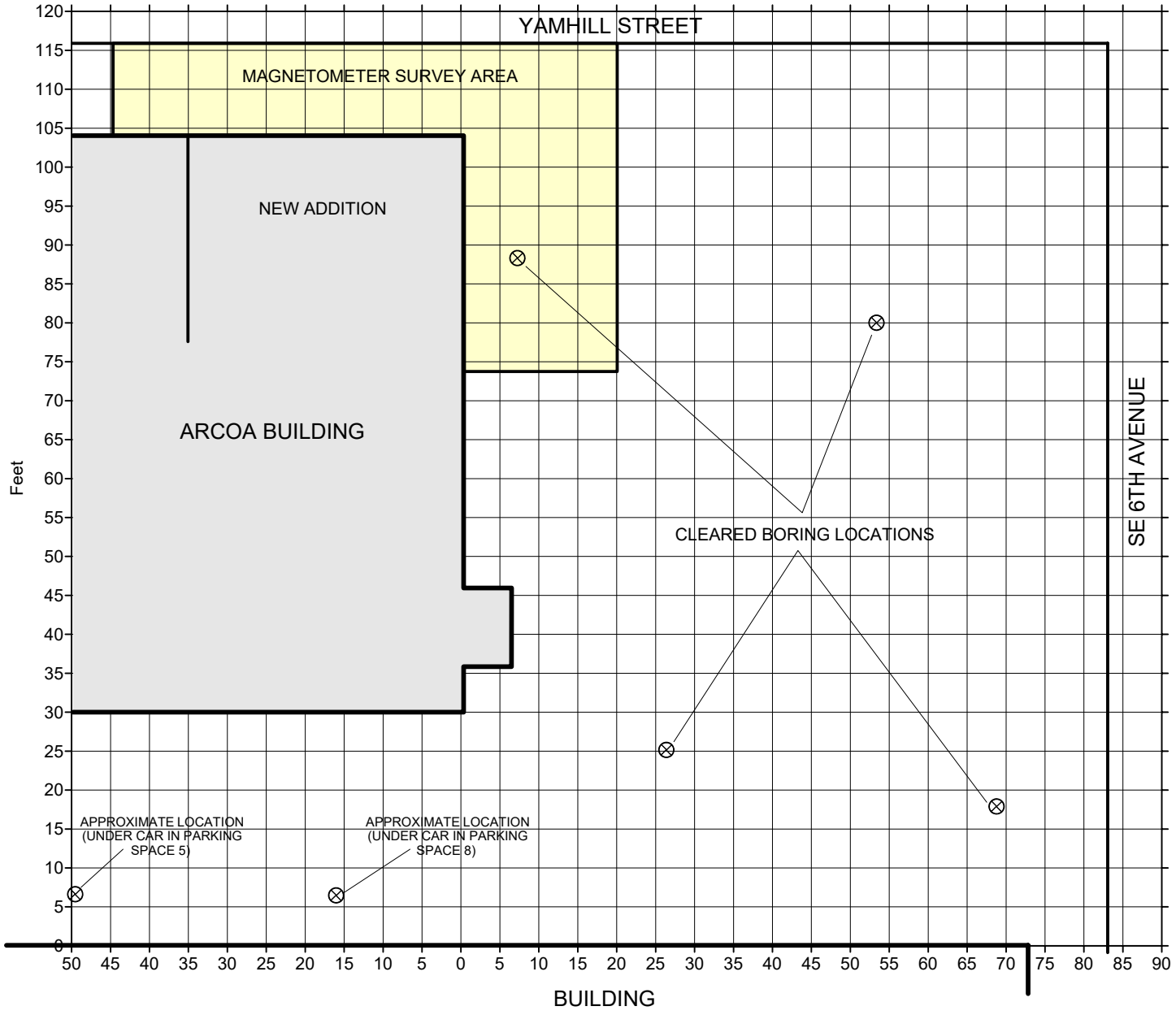


PACIFIC GEOPHYSICS
Applied Geophysics

FIGURE 1

Magnetic Contour Map C.I.=250 nT

Project: 121117	Arcoa Building 1006 SE Grand Avenue Portland, Oregon
Drawn by : JM	Prepared for: Chugwater LLC
	Date of Survey: December 4, 2012



PACIFIC GEOPHYSICS
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FIGURE 2

Cleared Boring Locations

Project: 121117	Arcoa Building 1006 SE Grand Avenue Portland, Oregon
Drawn by : JM	Prepared for: Chugwater LLC
	Date of Survey: December 4, 2012

Appendix A. Geophysical Survey Methods

Magnetometer Surveys

Small disturbances in the Earth's local magnetic field are called "magnetic anomalies". These may be caused by naturally occurring features such as metallic mineral ore bodies, or from manmade features such as metal buildings, vehicles, fences, and underground storage tanks. The magnetometer only detects changes produced by ***ferrous*** objects. Aluminum and brass are non-ferrous metals and cannot be detected using a magnetometer.

A magnetometer is an electronic instrument designed to detect small changes in the Earth's local magnetic field. Over the years different technologies have been used in magnetometers. The Geometrics G-858 Portable Cesium Magnetometer used to collect magnetic data for Pacific Geophysics uses one of the most recent methods to detect magnetic anomalies. A detailed discussion describing the method this unit uses is available at Geometrics.com.

This magnetometer enables the operator to collect data rapidly and continuously rather than the older instruments that collected data at discreet points only. The G-858 is carried by hand across the site. The sensor is carried at waist level. Typically individual data points collected at normal walking speed are about 6" apart along survey lines usually 5 feet apart, depending on the dimensions of the target objects.

It is critical to know the exact location of each data point so that if an anomaly is detected it can be accurately plotted on a magnetic contour map. At most small sites, data are collected along straight, parallel survey lines set up on the site before the data collection stage begins. For very large, complex sites, the G-858 can be connected to a Global Positioning System (GPS) antenna which allows the operator to collect accurately-located data without establishing a survey grid. With GPS, data are collected and positioned wherever the operator walks. A limitation using GPS is that the GPS antenna must have line of sight with the GPS satellites. Data can be mislocated if the GPS antenna is under trees or near tall buildings.

Data are stored in the unit's memory for later downloading and processing. A magnetic contour map of the data is plotted in the field. Geographical features are plotted on the map. Magnetic anomalies appearing to be caused by objects of interest are then investigated on the site using several small hand-held metal detectors. If an object appears to be a possible object of interest, it may be investigated with GPR.

Magnetic contour maps may be printed in color in order to highlight anomalies caused by ferrous objects located under the magnetic sensor. Usually, ferrous objects situated below the sensor produce magnetic "highs" and anomalies located above the sensor produce magnetic "lows". Magnetic highs are of interest to the operator since most objects of interest are located underground.

Depending on the orientation, shape and mass of a metallic object, a high/low pair of magnetic anomalies may be present. In the northern hemisphere the magnetic low is located north of the object and the magnetic high toward the south. The object producing the anomaly is located part way between the high and the low anomalies.

Magnetometer surveys have limitations. Magnetometers only detect objects made of ferrous (iron-containing) metal. Large ferrous objects (buildings, cars, fences, etc.) within several feet of the magnetometer create interference that may hide the anomaly produced by a nearby object of interest.

Ground Penetrating Radar

A Geophysical Survey Systems, Inc. (GSSI) SIR-2000 GPR system coupled to a 270-, 400-, or 900-MHz GSSI antenna is used to obtain the radar data for our surveys.

GPR antennas both transmit and receive electromagnetic energy. EM energy is transmitted into the material the antenna passes over. A portion of that energy is reflected back to the antenna and amplified. Reflections are displayed in real-time in a continuous cross section. Reflections are produced where there is a sufficient electrical contrast between two materials. Changes in the electrical properties (namely the dielectric constant) that produce radar reflections include the moisture content, porosity, mineralogy, and texture of the material. Metallic objects of interest exhibit a strong electrical contrast with the surrounding material and thus produce relatively strong reflections. Non-metallic objects of interest (septic tanks, cesspools, dry wells, PVC and clay tile pipes) are not always good reflectors.

Radar data are ambiguous. It can be difficult to distinguish the reflection produced by an object of interest from the reflection caused by some natural feature. Rocks or tree roots have reflections that appear similar to reflections from pipes. In concrete investigations reflections produced by metal rebar look exactly like those from electrical conduit or post-tension cables. Objects with too small an electrical contrast may produce no reflections at all and may be missed.

In addition to interpreting ambiguous data, radar has several limitations that cannot be controlled by the operator. The radar signal is severely attenuated by electrically conductive material, including wet, clay-rich soil and reinforced concrete. The quality of the data is affected by the surface conditions over which the antenna is pulled. Ideally the antenna should rest firmly on a smooth surface. Rough terrain and tall grass reduce the quality of radar data.

It is the job of an experienced interpreter to examine the GPR profiles and deduce if reflections are from objects of interest. A GPR interpreter cannot see underground, but can only interpret reflections based on experience.

The only way to truly identify an object is to excavate.

Hand-held Metal detectors

Two small, non recording metal detectors are used to locate suspect magnetic anomalies detected using the G-858 Magnetometer in order to determine the likely cause of the anomaly. First, the magnetic contour map and a Schonstedt Magnetic Gradiometer are used to locate the center of the magnetic anomalies.

Once the anomaly is located an Aqua-Tronics Tracer is used to determine if the object producing the anomaly is a possible object of interest. Most anomalies are at least in part produced by features observed on the ground surface.

Schonstedt Magnetic Gradiometer: This magnetometer has two magnetic sensors separated vertically by 10”. The magnetic field surrounding a ferrous object is strongest near the object and decreases rapidly as the distance increases. If the magnitude measured by the sensor located in the tip of the Schonstedt is very high, and the magnetic field measured by the sensor located farther up the shaft of the Schonstedt is low, there is a large vertical magnetic gradient and the instrument responds with a loud whistle indicating the object is near the surface. If there is a small difference in the magnitudes measured by the two sensors, the object is deeper. The instrument responds with a softer tone. A discussion of this instrument is available at Schonstedt.com.

Aqua-Tronics A-6 Tracer: The Aqua-Tronics A-6 Tracer uses a different method of detecting metallic objects. This instrument measures the electrical conductivity of a metal object. It is capable of detecting any electrically conductive metal, including non-ferrous aluminum and brass. The Tracer is capable of detecting three-dimensional objects as well as pipes.

The Tracer consists of a transmitter coil and a receiver coil. In the absence of any electrically conductive material in the vicinity of the Tracer, the electromagnetic field around each coil is balanced.

Basically the electromagnetic field produced by the transmitter induces an electric current into the area surrounding the instrument. Nearby conductive objects distort the EM field. The balance between the two coils is disturbed and the instrument produces an audible tone and meter indication.

Chugwater, LLC
10445 SW Canyon Road, Suite 101
Beaverton, Oregon 97005
Ph: 503.916.9254
Fax: 503.352.0920

Wednesday, April 24, 2013

TO: Vince Huffstutter
Huffco

FROM: Gil Cobb
Chugwater, LLC

RE: Arcoa Building

Per your authorization, Chugwater conducted follow-up indoor air quality testing for volatile organic compounds to determine if levels of compounds detected in a soil vapor sample collected beneath the Arcoa Building slab are present within the work environment at concentrations in excess of inhalation standards for an occupation setting established in the in the manual titled *"Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites"* prepared by the Oregon Department of Environmental Quality revised June 7, 2012.

SOIL VAPOR TESTING

On February 15, 2013 Chugwater collected soil vapor samples as part of a larger investigation regarding the past use of the Property as a dry cleaning plant. Three soil vapor samples were collected including two samples in the drive to the south of the Property building and one sub-slab sample.

TABLE 1
LABORATORY ANALYTICAL RESULTS –VOCS IN SOIL VAPOR (UG/M^3)

Sample Number	Date	Depth	TPH Concentrations	TO 15 VOC Concentrations
SV1	2/15/2013	4.0'	Sample SV1 was received at laboratory (Eurofins/Air Toxics) with significant vacuum remaining in canister. The residual canister vacuum resulted in elevated reporting limits as well as elevated concentrations. As such these results are not used for the evaluation of conditions.	
SV2	2/15/2013	4.0'	NA	Chloroform – 36 Carbon Tetrachloride – 34 Benzene – 66 Trichloroethene – 62 Toluene – 34 Tetrachloroethene – 2200 Ethylbenzene - 24 Xylenes – 300 1,3,5-Trimethybenzene – 1100 1,2,4-Trimethybenzene – 2800
SV3	2/15/2013	1.0'	NA	Cis-1, 2-Dichloroethene – 84 **Chloroform – 19000** Carbon Tetrachloride – 1800 Trichloroethene – 66 Tetrachloroethene – 400 1,2,4-Trimethybenzene – 78

Chugwater, LLC
10445 SW Canyon Road, Suite 101
Beaverton, Oregon 97005
Ph: 503.916.9254
Fax: 503.352.0920

Chloroform in soil gas was detected at a maximum concentration of 19,000 ug/m3 which exceeds the cleanup criteria for soil vapor intrusion into buildings in an occupational setting (530 ug/m3).

Chugwater recommended follow-up sampling of indoor air as a result of this finding.

INDOOR AIR TESTING

On March 29, 2013 Chugwater collected two indoor air samples. The samples were collected via the evacuation of 1-liter summa canisters. Sample Arcoa IA-1 was collected in the basement communications room and sample Arcoa IA-2 was collected in large work area utilized by SalonCentric.

TABLE 2
LABORATORY ANALYTICAL RESULTS –VOCS IN INDOOR AIR (UG/M^3)

Sample Number	Date	TO 15 VOC Concentrations
Arcoa IA-1	3/29/2013	Ethanol – 29 Acetone – 32 2-Propanol – 25 Toluene – 7.6 Tetrachloroethene – 7.8
Arcoa IA-2	3/29/2013	Ethanol – 16

None of the volatile organic compounds detected in the collected samples exceed the inhalation standards for an occupation setting established in the in the manual titled *"Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites".*

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4/14/2013
Mr. Gil Cobb
Chugwater, LLC
10445 SW Canyon Road, Suite 101

Beaverton OR 97005

Project Name: ARCOA BLDN
Project #: CW130201.1
Workorder #: 1304010

Dear Mr. Gil Cobb

The following report includes the data for the above referenced project for sample(s) received on 4/1/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1304010

Work Order Summary

CLIENT:	Mr. Gil Cobb Chugwater, LLC 10445 SW Canyon Road, Suite 101 Beaverton, OR 97005	**BILL TO:**	Mr. Gil Cobb Chugwater, LLC 10445 SW Canyon Road, Suite 101 Beaverton, OR 97005
PHONE:	503-916-9254	**P.O. #**	
FAX:	503-352-0920	**PROJECT #**	CW130201.1 ARCOA BLDN
DATE RECEIVED:	04/01/2013	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	04/14/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	ARCOA IA1	Modified TO-15	4.1 "Hg	14.5 psi
02A	ARCOA IA2	Modified TO-15	3.3 "Hg	15.6 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 04/14/13

Technical Director

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

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LABORATORY NARRATIVE
EPA Method TO-15
Chugwater, LLC
Workorder# 1304010

Two 1 Liter Summa Canister samples were received on April 01, 2013. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: ARCOA IA1

Lab ID#: 1304010-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.6	15	8.7	29
Acetone	12	14	27	32
2-Propanol	4.6	10	11	25
Toluene	1.2	2.0	4.3	7.6
Tetrachloroethene	1.2	1.1 J	7.8	7.8 J

Client Sample ID: ARCOA IA2

Lab ID#: 1304010-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	4.6	8.5	8.7	16

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Client Sample ID: ARCOA IA1

Lab ID#: 1304010-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040410**	**Date of Collection:**	**3/29/13 8:59:00 AM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**4/4/13 06:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.0	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
1,3-Butadiene	1.2	Not Detected	2.5	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.6	15	8.7	29
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	14	27	32
2-Propanol	4.6	10	11	25
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.1	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
Heptane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	2.0	4.3	7.6
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	1.1 J	7.8	7.8 J
2-Hexanone	4.6	Not Detected	19	Not Detected

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Client Sample ID: ARCOA IA1

Lab ID#: 1304010-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040410**	**Date of Collection:**	**3/29/13 8:59:00 AM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**4/4/13 06:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.8	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.6	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
Propylbenzene	1.2	Not Detected	5.6	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: ARCOA IA2

Lab ID#: 1304010-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040411**	**Date of Collection:**	**3/29/13 9:11:00 AM**
Dil. Factor:	**2.31**	**Date of Analysis:**	**4/4/13 06:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.6	8.5	8.7	16
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	Not Detected	27	Not Detected
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected

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Client Sample ID: ARCOA IA2

Lab ID#: 1304010-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040411**	**Date of Collection:**	**3/29/13 9:11:00 AM**
Dil. Factor:	**2.31**	**Date of Analysis:**	**4/4/13 06:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1304010-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 03:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1304010-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 03:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 1304010-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 12:29 PM**	

Compound	%Recovery
Freon 12	89
Freon 114	95
Chloromethane	77
Vinyl Chloride	82
1,3-Butadiene	81
Bromomethane	89
Chloroethane	84
Freon 11	91
Ethanol	77
Freon 113	97
1,1-Dichloroethene	94
Acetone	82
2-Propanol	83
Carbon Disulfide	88
3-Chloropropene	91
Methylene Chloride	77
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	99
Hexane	93
1,1-Dichloroethane	83
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	93
Tetrahydrofuran	82
Chloroform	88
1,1,1-Trichloroethane	93
Cyclohexane	101
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	88
Benzene	89
1,2-Dichloroethane	89
Heptane	98
Trichloroethene	88
1,2-Dichloropropane	80
1,4-Dioxane	90
Bromodichloromethane	90
cis-1,3-Dichloropropene	92
4-Methyl-2-pentanone	91
Toluene	89
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	91
Tetrachloroethene	99
2-Hexanone	100

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Client Sample ID: CCV

Lab ID#: 1304010-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 12:29 PM**	

Compound	%Recovery
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	94
Chlorobenzene	91
Ethyl Benzene	100
m,p-Xylene	104
o-Xylene	104
Styrene	113
Bromoform	102
Cumene	110
1,1,2,2-Tetrachloroethane	80
Propylbenzene	98
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	93
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: LCS

Lab ID#: 1304010-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 01:07 PM**	

Compound	%Recovery
Freon 12	88
Freon 114	95
Chloromethane	78
Vinyl Chloride	82
1,3-Butadiene	81
Bromomethane	88
Chloroethane	84
Freon 11	87
Ethanol	75
Freon 113	98
1,1-Dichloroethene	101
Acetone	83
2-Propanol	84
Carbon Disulfide	106
3-Chloropropene	108
Methylene Chloride	74
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	111
Hexane	91
1,1-Dichloroethane	80
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	92
Tetrahydrofuran	77
Chloroform	87
1,1,1-Trichloroethane	91
Cyclohexane	100
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	86
Benzene	91
1,2-Dichloroethane	86
Heptane	98
Trichloroethene	91
1,2-Dichloropropane	82
1,4-Dioxane	90
Bromodichloromethane	89
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	89
Toluene	88
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	91
Tetrachloroethene	100
2-Hexanone	97

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Client Sample ID: LCS

Lab ID#: 1304010-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 01:07 PM**	

Compound	%Recovery
Dibromochloromethane	100
1,2-Dibromoethane (EDB)	96
Chlorobenzene	92
Ethyl Benzene	102
m,p-Xylene	105
o-Xylene	106
Styrene	111
Bromoform	99
Cumene	112
1,1,2,2-Tetrachloroethane	81
Propylbenzene	98
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1304010-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 01:43 PM**	

Compound	%Recovery
Freon 12	88
Freon 114	96
Chloromethane	80
Vinyl Chloride	85
1,3-Butadiene	83
Bromomethane	90
Chloroethane	87
Freon 11	87
Ethanol	75
Freon 113	97
1,1-Dichloroethene	104
Acetone	83
2-Propanol	86
Carbon Disulfide	107
3-Chloropropene	108
Methylene Chloride	74
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	113
Hexane	93
1,1-Dichloroethane	81
2-Butanone (Methyl Ethyl Ketone)	91
cis-1,2-Dichloroethene	93
Tetrahydrofuran	78
Chloroform	87
1,1,1-Trichloroethane	93
Cyclohexane	102
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	87
Benzene	91
1,2-Dichloroethane	84
Heptane	97
Trichloroethene	91
1,2-Dichloropropane	82
1,4-Dioxane	92
Bromodichloromethane	88
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	90
Toluene	89
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	90
Tetrachloroethene	98
2-Hexanone	95

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1304010-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3040404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 4/4/13 01:43 PM**	

Compound	%Recovery
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	95
Chlorobenzene	92
Ethyl Benzene	98
m,p-Xylene	105
o-Xylene	104
Styrene	110
Bromoform	98
Cumene	110
1,1,2,2-Tetrachloroethane	79
Propylbenzene	96
4-Ethyltoluene	99
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	99
Hexachlorobutadiene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	104	70-130

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX C
FIELD BORING LOGS

point source solutions

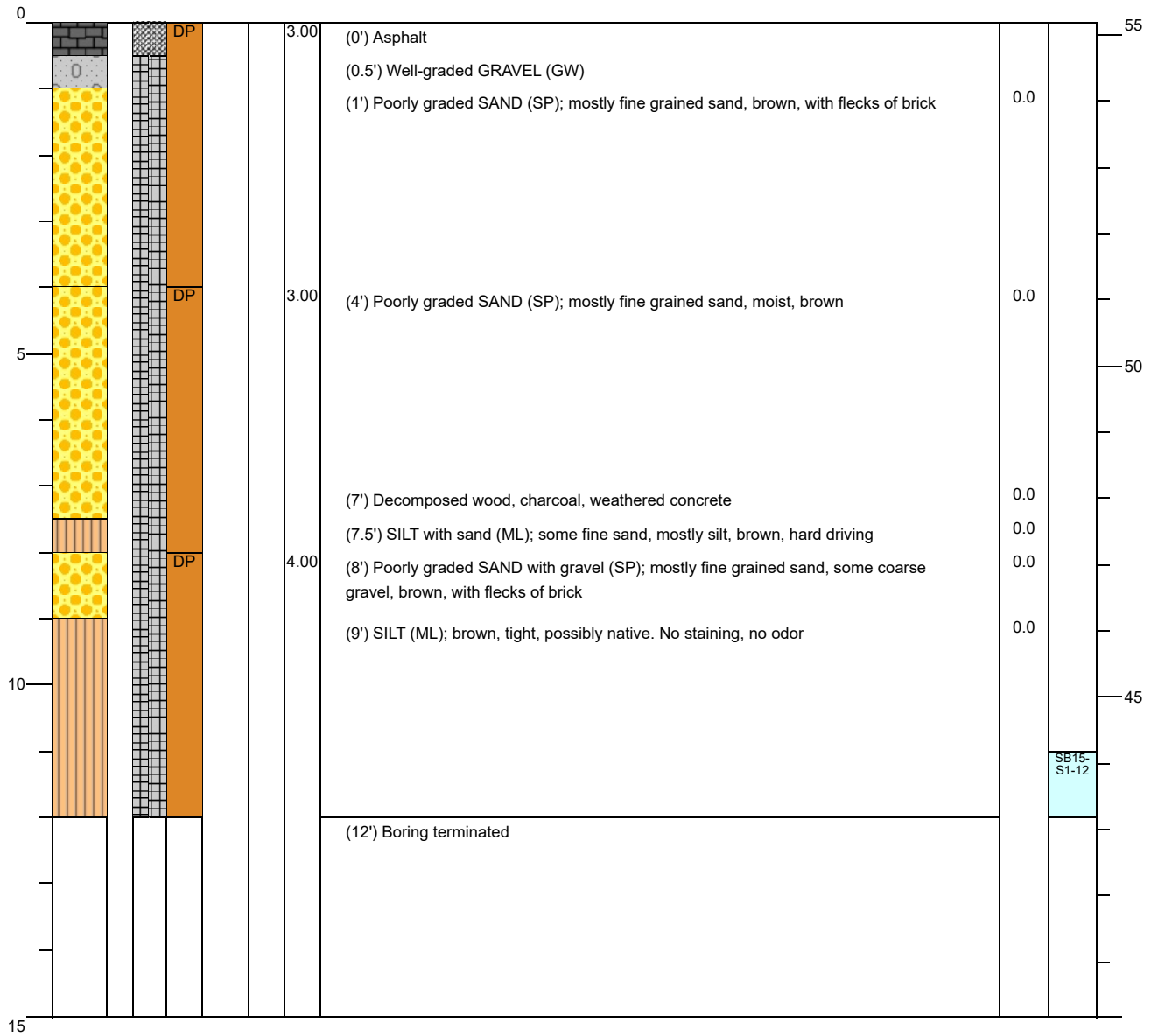
BORING AND WELL LOG LEGEND

LITHOLOGY	WATER LEVEL	WELL/BORING COMPLETION	Sample Type	DESCRIPTION
				ASPHALT
				CONCRETE
				BEDROCK
				IGNEOUS Rock
				METAMORPHIC Rock
				SEDIMENTARY Rock
				Well-graded GRAVEL (GW)
				Poorly graded GRAVEL (GP)
				Silty GRAVEL (GM)
				Clayey GRAVEL (GC)
				Well-graded GRAVEL with silt (GW-GM)
				Poorly graded GRAVEL with silt (GP-GM)
				Well-graded GRAVEL with clay (GW-GC)
				Poorly graded GRAVEL with clay (GP-GC)
				Well-graded SAND (SW)
				Poorly graded SAND (SP)
				Silty SAND (SM)
				Clayey SAND (SC)
				Well-graded SAND with silt (SW-SM)
				Poorly graded SAND with silt (SP-SM)
				Well-graded SAND with clay (SW-SC)
				Poorly graded SAND with clay (SP-SC)
				SILT (ML)
				Lean CLAY (CL)
				Organic SOIL (OL)
				Elastic SILT (MH)
				Fat CLAY (CH)
				Organic SOIL (OH)
				Organic SOIL (OL/OH)
				PEAT (PT)
				Volume Descriptors:
				Trace = <5%
				Few = 5-10%
				Little = 15-25%
				Some = 30-45%
				Mostly = >=50%
	▽			Water Level During Drilling
	▽			Water Level at End of Drilling/in Completed Well
				Cap
				Riser
				Screen
				End Plug
				Annular Seal (Bentonite-Cement Grout, Bentonite Slurry/Chips/Pellets/Powder, Other)
				Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)
				Filter Pack (Sand, Gravel, Other)
				Backfill
			GR	Grab
			EN	Encore
			SS	Split Spoon
			SH	Shelby Tube
			CO	Core Barrel
			DP	Direct Push
			ID	Lab Sample and ID

NOTES:

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB15
	Address: 1024 SE Grand Ave, Portland, OR	Page: 1 of 21

Drilling Start Date:	**01/06/2017**	Boring Depth (ft):	**12.0**
Drilling End Date:	**01/06/2017**	Boring Diameter (in):	**2.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe DT22**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.19**
Logged By:	**ATK**	Location (Lat, Long):	**45.515243, -122.660347**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB16
	Address: 1024 SE Grand Ave, Portland, OR	Page: 2 of 21

Drilling Start Date:	**01/06/2017**	Boring Depth (ft):	**16.5**
Drilling End Date:	**01/06/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.23**
Logged By:	**JR**	Location (Lat, Long):	**45.515424, -122.660301**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0								(0') Concrete (0.5') Fill: concrete and building material, hard drilling			55
				DP			3.60	(2') SILT (ML); mostly silt, some clay, light brown	0.0		
								(3') Fill: layer of weathered gravel with bits of wood	0.0		
				DP			1.80	(3.5') SILT (ML); mostly silt, some clay, brown (4') As Above	0.0		
5											50
				DP			1.70	(6') SILT (ML); mostly silt, some clay, marbled (light brown to greenish gray), spots of dark brown organics, hard driving	0.0		
				DP			1.30	(8') SILT (ML); light brown, hard driving	0.0		
								(9') SILT (ML); mostly silt, some clay, bluish-gray, solvent staining and odor	973.6		
10				DP			1.40	(10') As Above			45
										SB16-S1-11	
				DP			1.60	(12') As Above	1,104		
				DP			0.00	(14') No Recovery: tip closed, soils not screened			
15				DP			0.45	(15') SILT (ML); mostly silt, some clay, bluish-gray, solvent staining and odor			40
										SB16-S2-16.5	
								(16') SILT (ML); mostly silt, some clay, brown	40.3		
								(16.5') Boring terminated, hard refusal			
20											

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB17
	Address: 1024 SE Grand Ave, Portland, OR	Page: 3 of 21

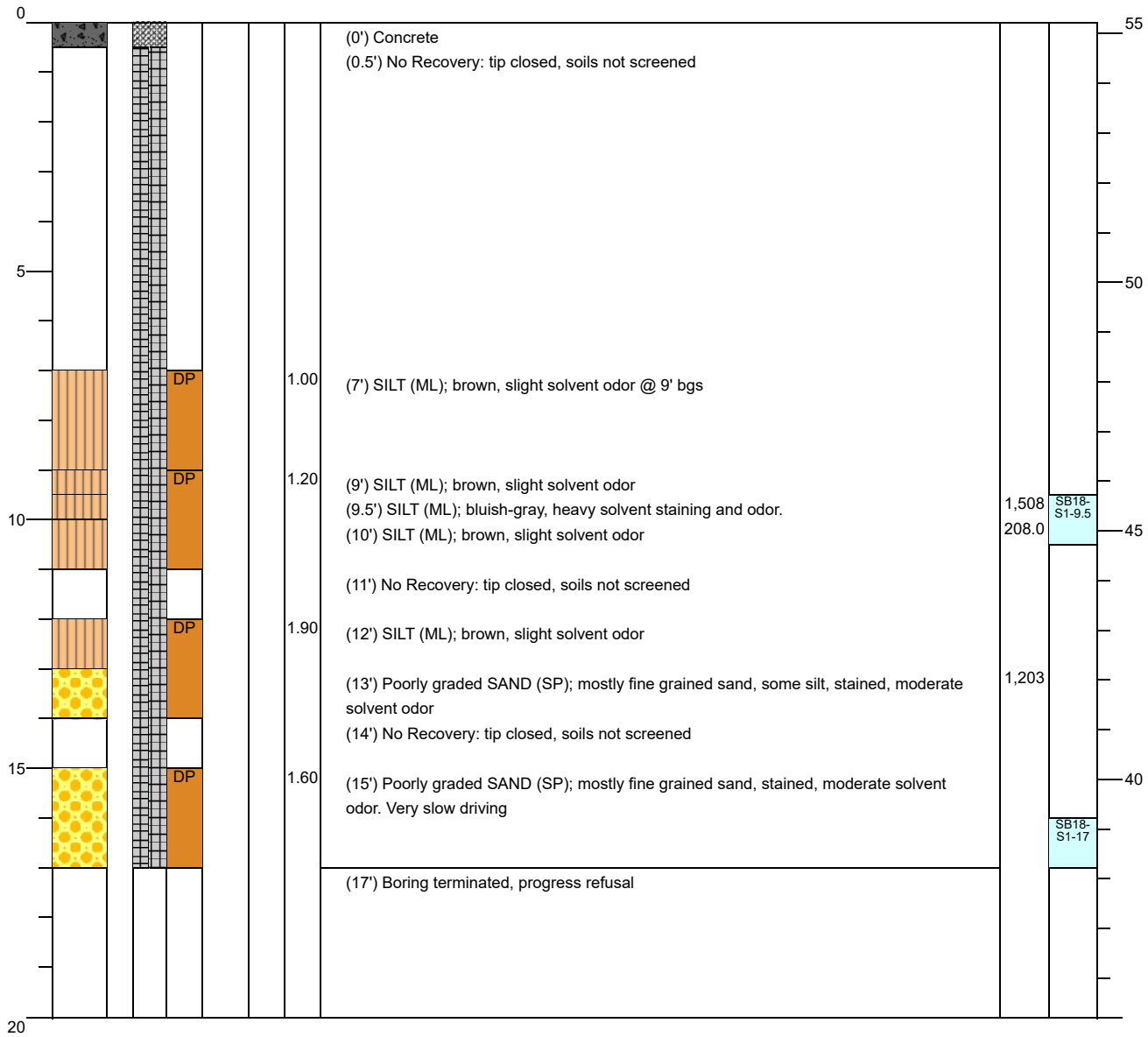
Drilling Start Date:	**01/06/2017**	Boring Depth (ft):	**12.0**
Drilling End Date:	**01/06/2017**	Boring Diameter (in):	**2.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe DT22**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.68**
Logged By:	**JR**	Location (Lat, Long):	**45.515223, -122.660565**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0				DP			3.40	(0') Asphalt (0.5') Sandy SILT (ML); mostly silt, some clay, brown, spots of brick and grayish soils	1.4		55
				DP			3.20	(4') Sandy SILT (ML); mostly silt, some clay, moist, brown, spots of oxidation and gray organics, bricks with concrete and mortar			
5				DP			4.00	(8') Poorly graded GRAVEL with sand (GP); mostly coarse grained gravel, some medium sand, with crushed concrete and brick (9') Sandy SILT (ML); mostly silt, some clay, moist, light brown			50
10								(12') Boring terminated		SB17-S1-12	45
15											

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB18
	Address: 1024 SE Grand Ave, Portland, OR	Page: 4 of 21

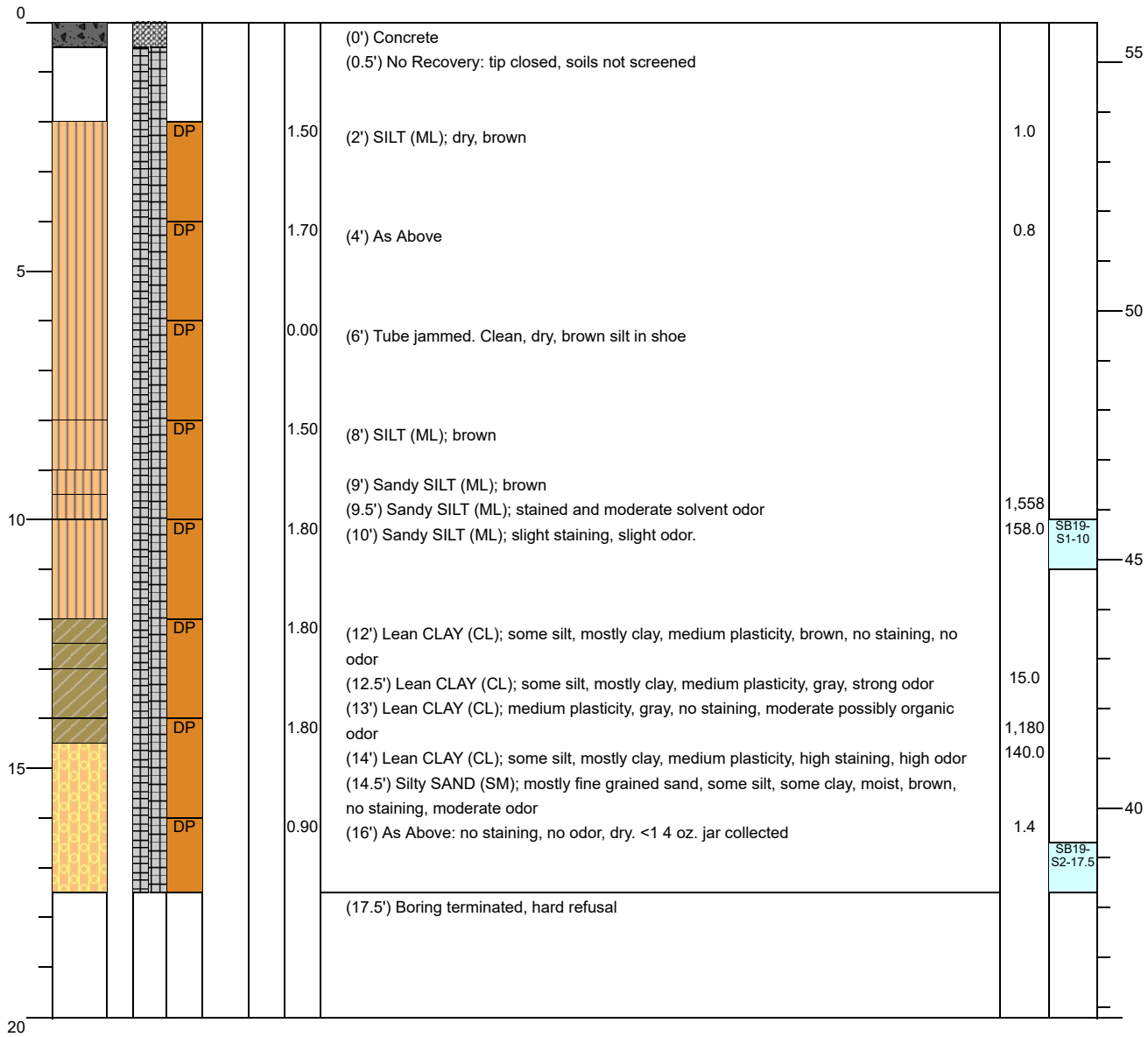
Drilling Start Date:	**01/06/2017**	Boring Depth (ft):	**17.0**
Drilling End Date:	**01/06/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.23**
Logged By:	**ATK**	Location (Lat, Long):	**45.515377, -122.660333**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB19
	Address: 1024 SE Grand Ave, Portland, OR	Page: 5 of 21

Drilling Start Date:	**03/14/2017**	Boring Depth (ft):	**17.5**
Drilling End Date:	**03/14/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.80**
Logged By:	**ATK**	Location (Lat, Long):	**45.515328, -122.660292**

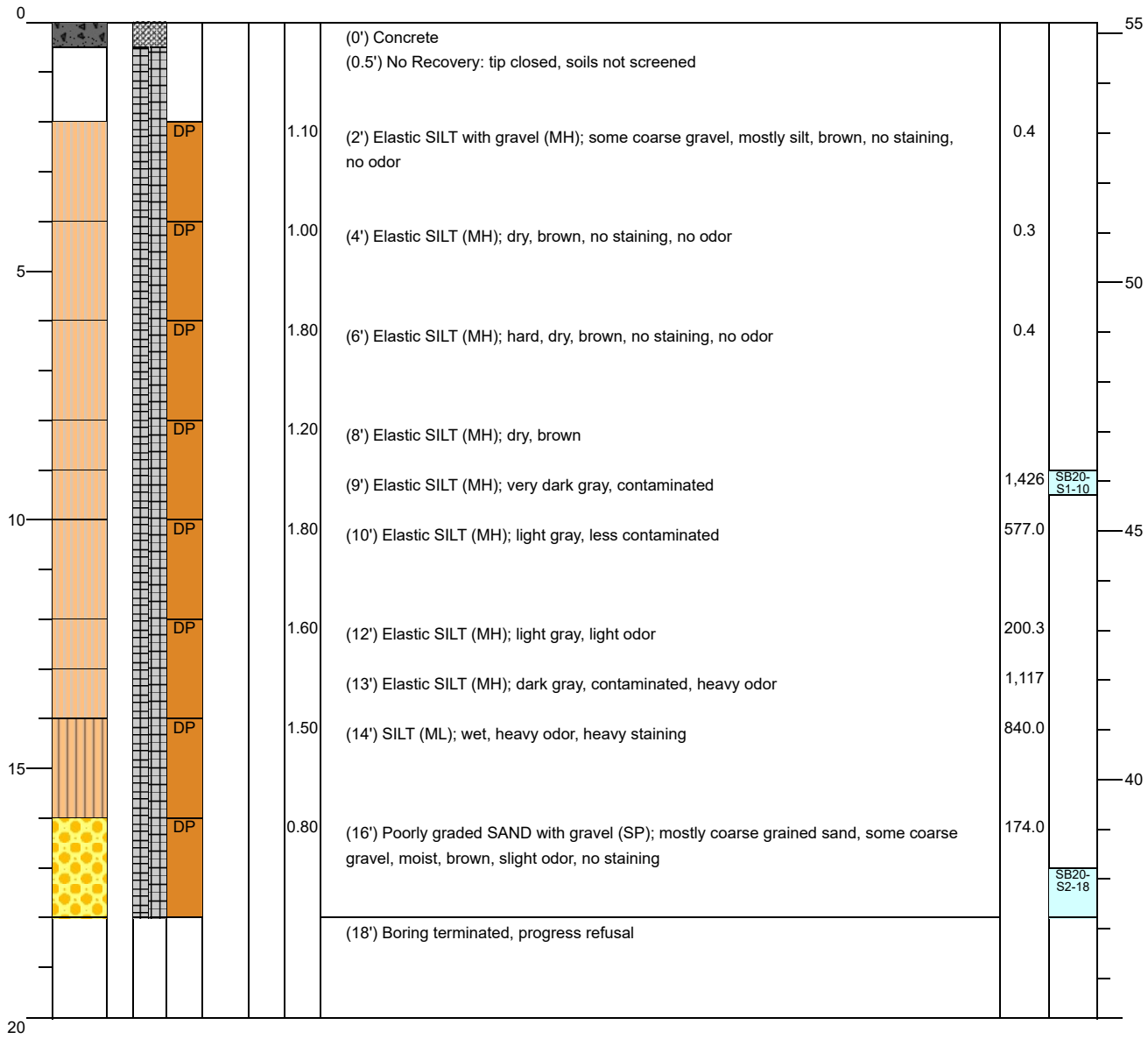


DEPTH (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample
	(0') Concrete		
	(0.5') No Recovery: tip closed, soils not screened		
	(2') SILT (ML); dry, brown	1.0	
	(4') As Above	0.8	
	(6') Tube jammed. Clean, dry, brown silt in shoe		
	(8') SILT (ML); brown		
	(9') Sandy SILT (ML); brown		
	(9.5') Sandy SILT (ML); stained and moderate solvent odor	1,558	
	(10') Sandy SILT (ML); slight staining, slight odor.	158.0	SB19-S1-10
	(12') Lean CLAY (CL); some silt, mostly clay, medium plasticity, brown, no staining, no odor		
	(12.5') Lean CLAY (CL); some silt, mostly clay, medium plasticity, gray, strong odor	15.0	
	(13') Lean CLAY (CL); medium plasticity, gray, no staining, moderate possibly organic odor	1,180	
	(14') Lean CLAY (CL); some silt, mostly clay, medium plasticity, high staining, high odor	140.0	
	(14.5') Silty SAND (SM); mostly fine grained sand, some silt, some clay, moist, brown, no staining, moderate odor		
	(16') As Above: no staining, no odor, dry. <1 4 oz. jar collected	1.4	SB19-S2-17.5
	(17.5') Boring terminated, hard refusal		

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB20
	Address: 1024 SE Grand Ave, Portland, OR	Page: 6 of 21

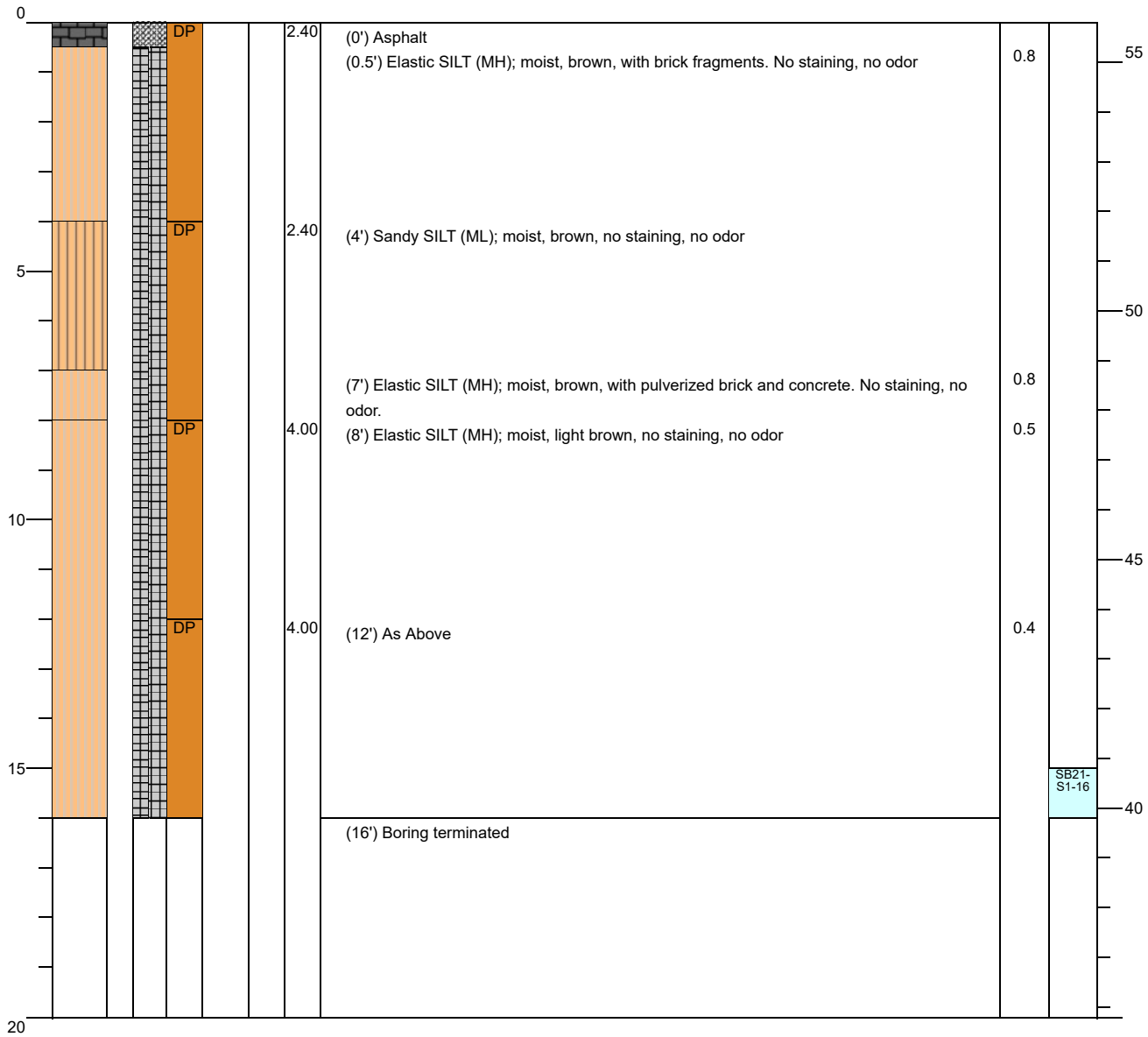
Drilling Start Date:	**03/14/2017**	Boring Depth (ft):	**18.0**
Drilling End Date:	**03/14/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.23**
Logged By:	**JR**	Location (Lat, Long):	**45.515406, -122.660394**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB21
	Address: 1024 SE Grand Ave, Portland, OR	Page: 7 of 21

Drilling Start Date:	**03/14/2017**	Boring Depth (ft):	**16.0**
Drilling End Date:	**03/14/2017**	Boring Diameter (in):	**2.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe DT22**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.80**
Logged By:	**ATK**	Location (Lat, Long):	**45.515288, -122.660347**

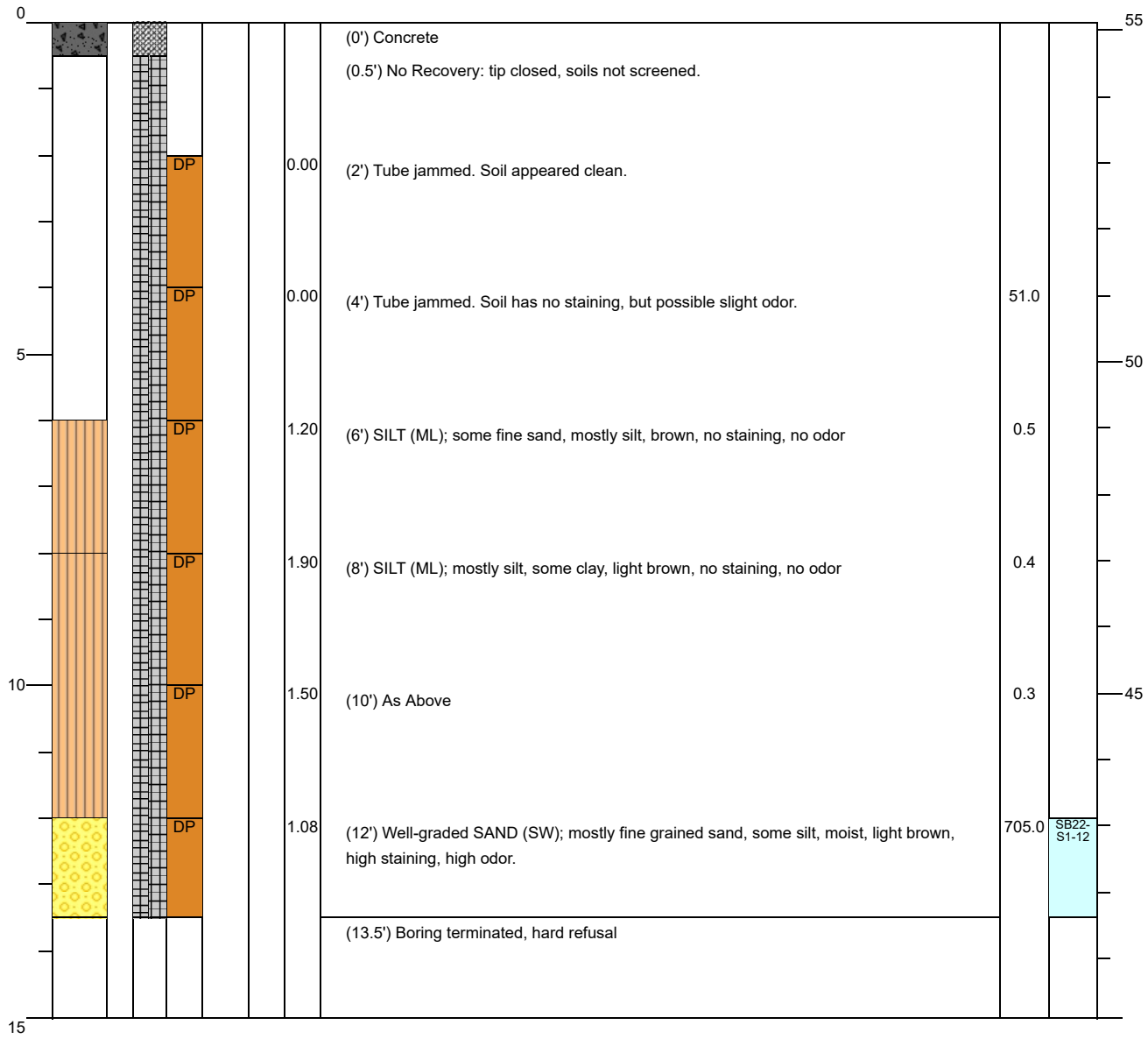


DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0				DP			2.40	(0') Asphalt (0.5') Elastic SILT (MH); moist, brown, with brick fragments. No staining, no odor	0.8		55
5				DP			2.40	(4') Sandy SILT (ML); moist, brown, no staining, no odor			50
				DP			4.00	(7') Elastic SILT (MH); moist, brown, with pulverized brick and concrete. No staining, no odor. (8') Elastic SILT (MH); moist, light brown, no staining, no odor	0.8 0.5		
10				DP			4.00	(12') As Above	0.4		45
15										SB21-S1-16	40
								(16') Boring terminated			
20											

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1025 SE 6th Ave	Boring No. SB22
	Address: 1025 SE 6th Ave, Portland, OR	Page: 8 of 21

Drilling Start Date:	**03/22/2017**	Boring Depth (ft):	**13.5**
Drilling End Date:	**03/22/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**55.12**
Logged By:	**ATK**	Location (Lat, Long):	**45.515358, -122.660225**

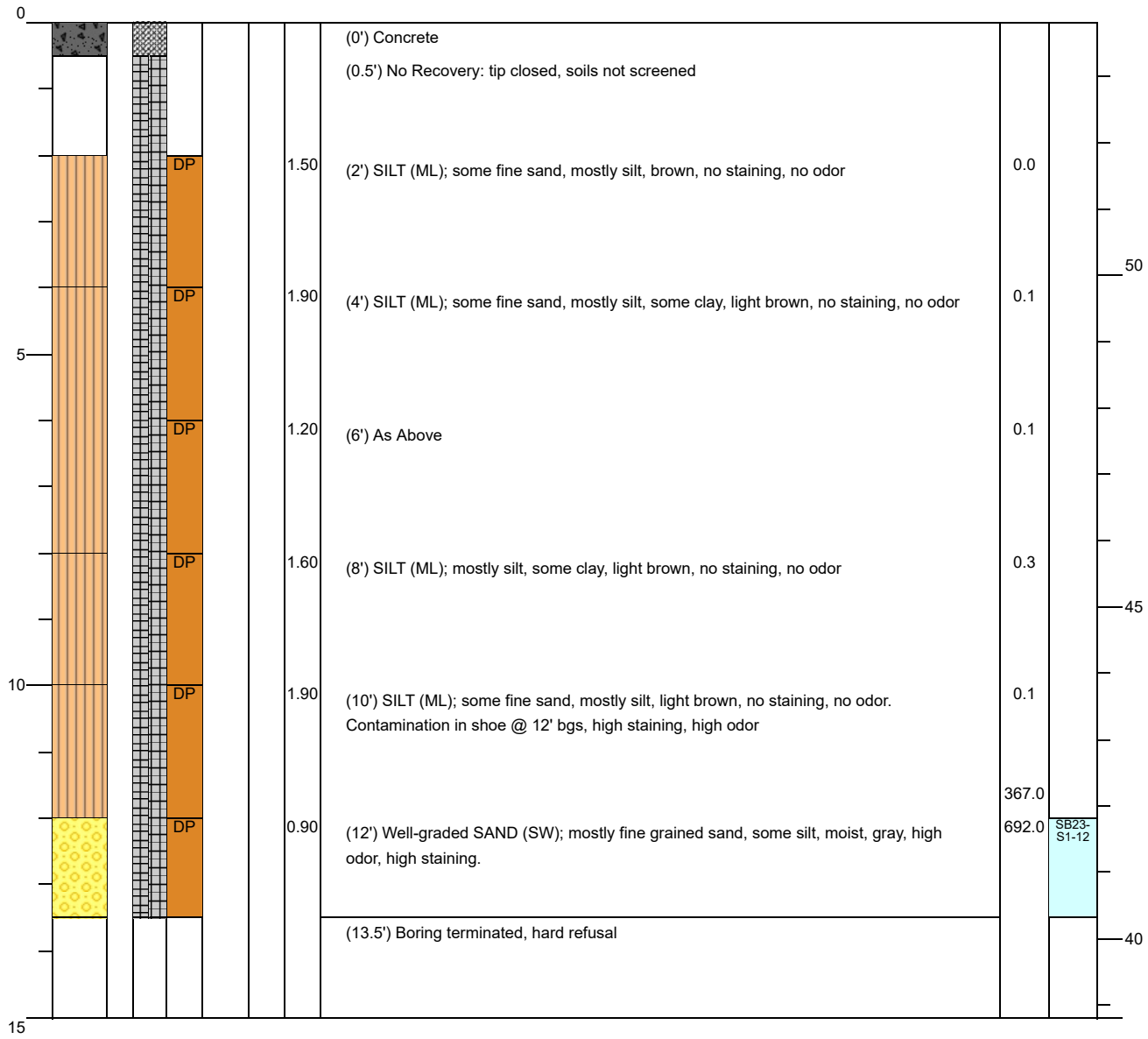


DEPTH (ft)	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0					(0') Concrete			55
					(0.5') No Recovery: tip closed, soils not screened.			
	DP			0.00	(2') Tube jammed. Soil appeared clean.			
	DP			0.00	(4') Tube jammed. Soil has no staining, but possible slight odor.	51.0		
5	DP			1.20	(6') SILT (ML); some fine sand, mostly silt, brown, no staining, no odor	0.5		50
	DP			1.90	(8') SILT (ML); mostly silt, some clay, light brown, no staining, no odor	0.4		
10	DP			1.50	(10') As Above	0.3		45
	DP			1.08	(12') Well-graded SAND (SW); mostly fine grained sand, some silt, moist, light brown, high staining, high odor.	705.0	SB22-S1-12	
					(13.5') Boring terminated, hard refusal			
15								

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1025 SE 6th Ave	Boring No. SB23
	Address: 1025 SE 6th Ave, Portland, OR	Page: 9 of 21

Drilling Start Date:	**03/22/2017**	Boring Depth (ft):	**13.5**
Drilling End Date:	**03/22/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**53.81**
Logged By:	**ATK**	Location (Lat, Long):	**45.515357, -122.660136**

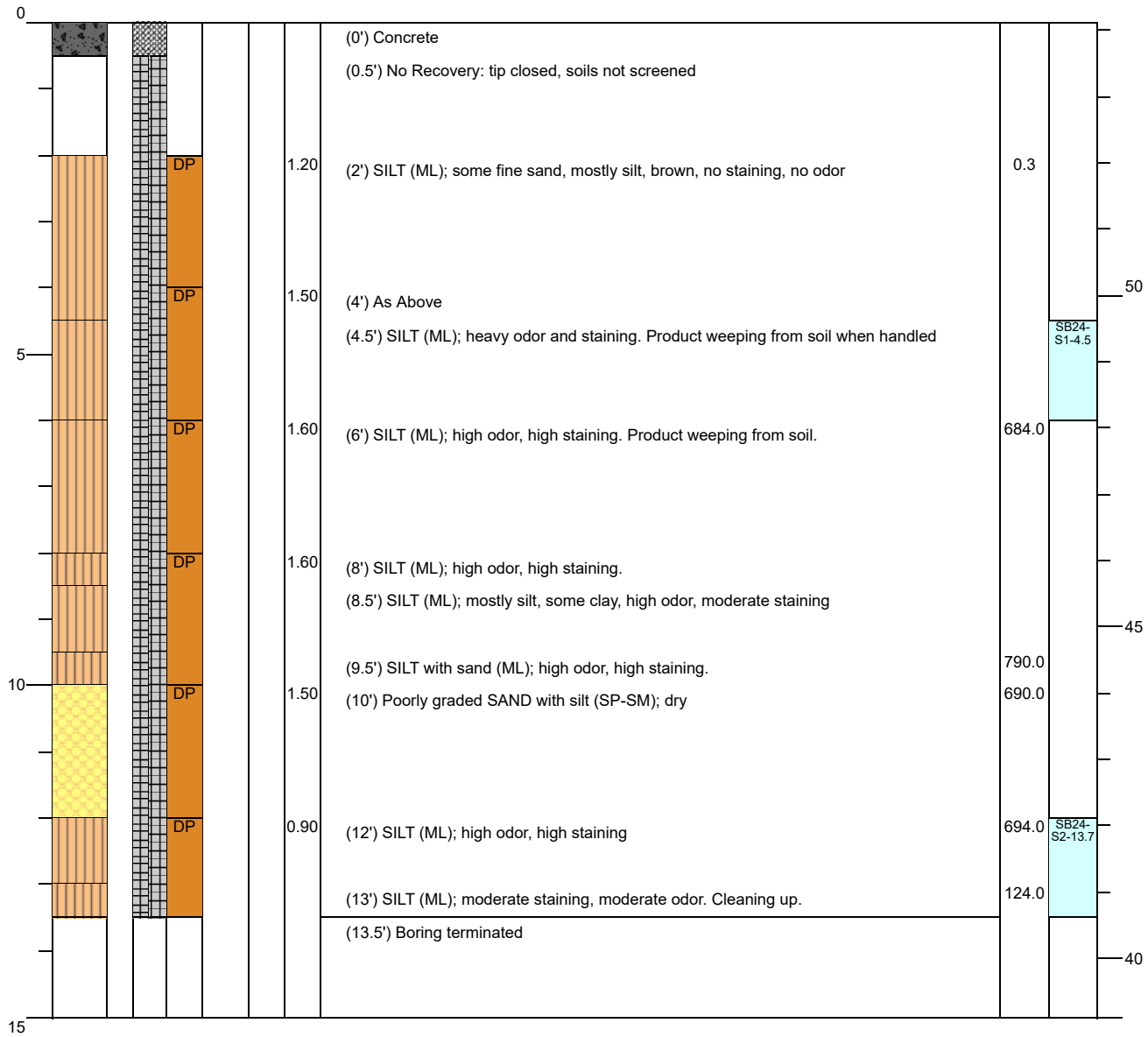


DEPTH (ft)	Sample Type	Time	Blow Counts	Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample	ELEVATION (ft)
0					(0') Concrete			
					(0.5') No Recovery: tip closed, soils not screened			
	DP			1.50	(2') SILT (ML); some fine sand, mostly silt, brown, no staining, no odor	0.0		
	DP			1.90	(4') SILT (ML); some fine sand, mostly silt, some clay, light brown, no staining, no odor	0.1		
5	DP			1.20	(6') As Above	0.1		
	DP			1.60	(8') SILT (ML); mostly silt, some clay, light brown, no staining, no odor	0.3		
10	DP			1.90	(10') SILT (ML); some fine sand, mostly silt, light brown, no staining, no odor. Contamination in shoe @ 12' bgs, high staining, high odor	0.1		
	DP			0.90	(12') Well-graded SAND (SW); mostly fine grained sand, some silt, moist, gray, high odor, high staining.	367.0 692.0	SB23-S1-12	
15					(13.5') Boring terminated, hard refusal			

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1025 SE 6th Ave	Boring No. SB24
	Address: 1025 SE 6th Ave, Portland, OR	Page: 10 of 21

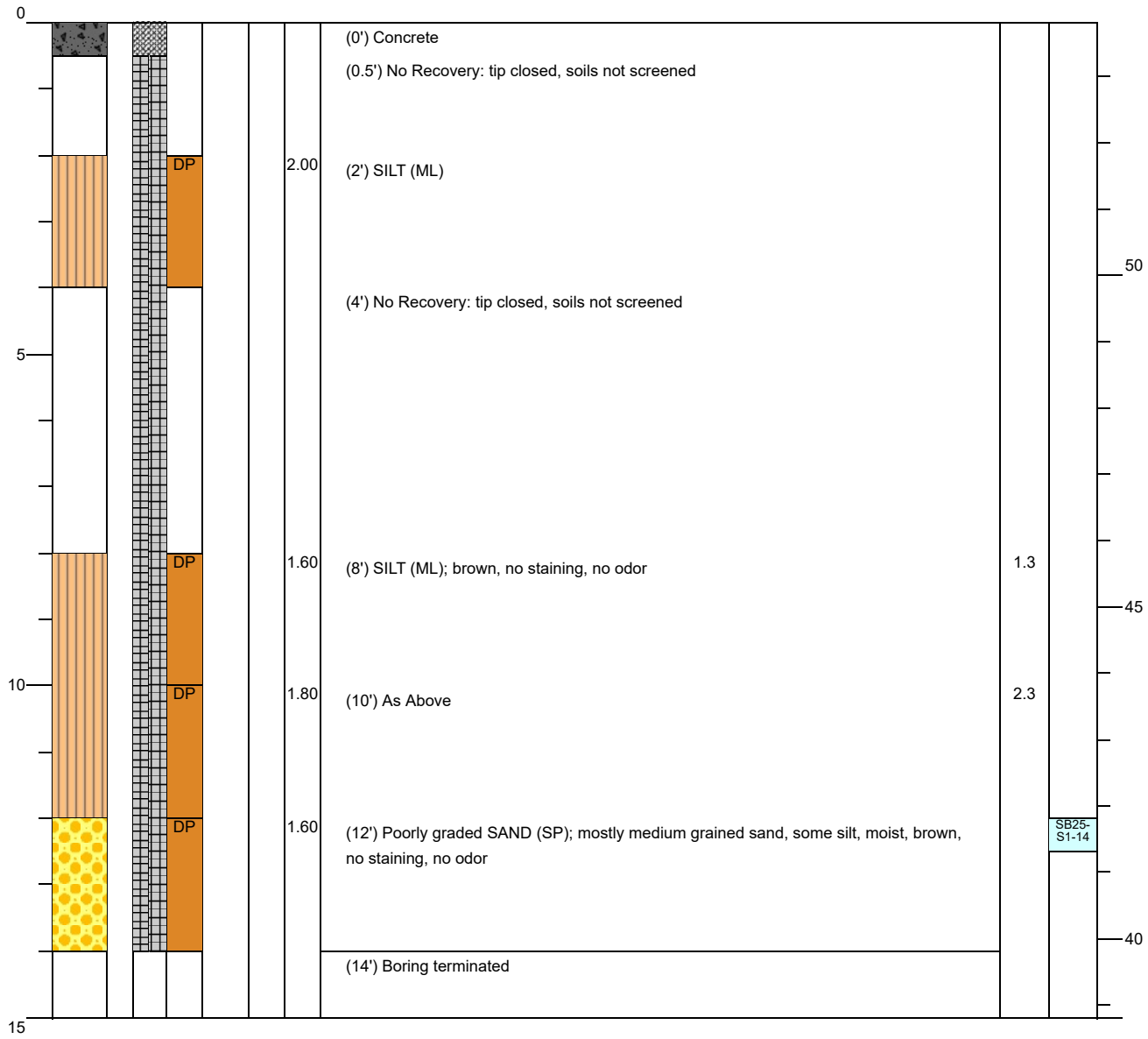
Drilling Start Date:	**03/22/2017**	Boring Depth (ft):	**13.5**
Drilling End Date:	**03/22/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**54.12**
Logged By:	**ATK**	Location (Lat, Long):	**45.515446, -122.660246**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1025 SE 6th Ave	Boring No. SB25
	Address: 1025 SE 6th Ave, Portland, OR	Page: 11 of 21

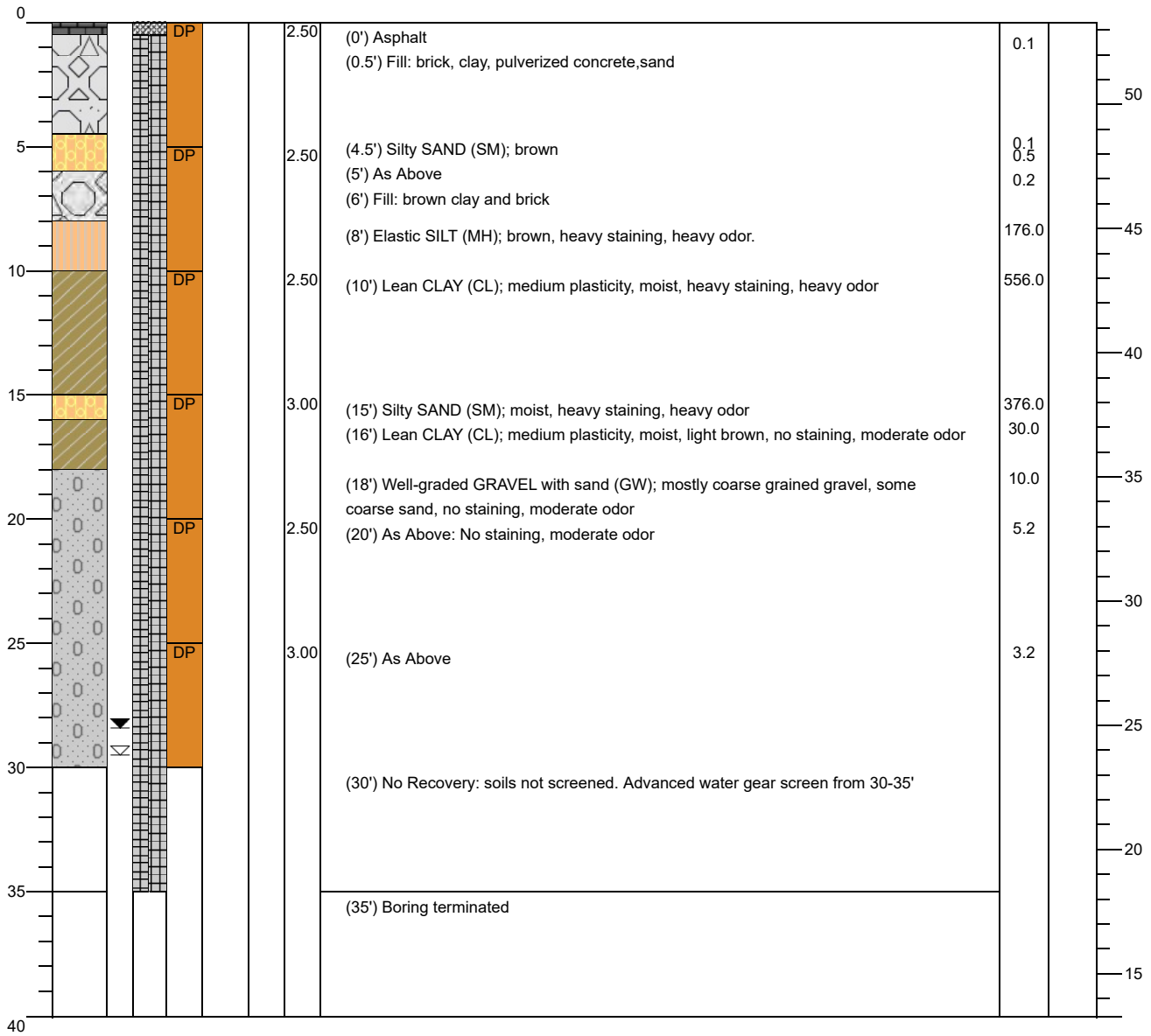
Drilling Start Date:	**03/22/2017**	Boring Depth (ft):	**14.0**
Drilling End Date:	**03/22/2017**	Boring Diameter (in):	**1.50**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**53.81**
Logged By:	**ATK**	Location (Lat, Long):	**45.515355, -122.660067**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB26
	Address: 1024 SE Grand Ave, Portland, OR	Page: 12 of 21

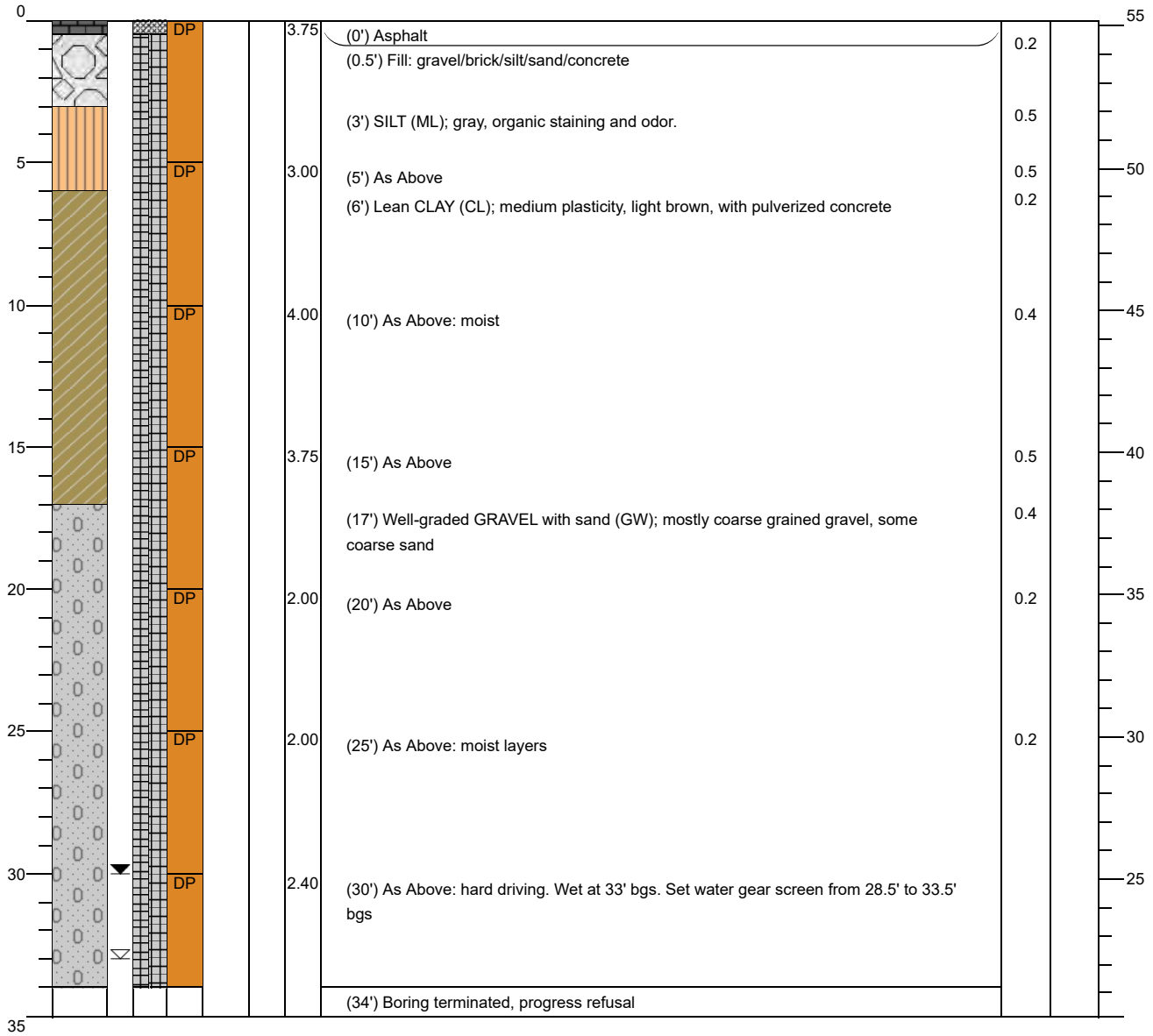
Drilling Start Date:	**05/30/2018**	Boring Depth (ft):	**35.0**
Drilling End Date:	**05/30/2018**	Boring Diameter (in):	**2.25**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**29.5**
Drilling Equipment:	**Geoprobe MC5**	DTW After Drilling (ft):	**28.4**
Driller:	**TD**	Ground Surface Elev. (ft):	**53.31**
Logged By:	**ATK**	Location (Lat, Long):	**45.515504, -122.660115**



NOTES: Hole precleared by Pacific Geophysics. Water sample W26 collected at 28.4 ft bgs.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB27
	Address: 1024 SE Grand Ave, Portland, OR	Page: 13 of 21

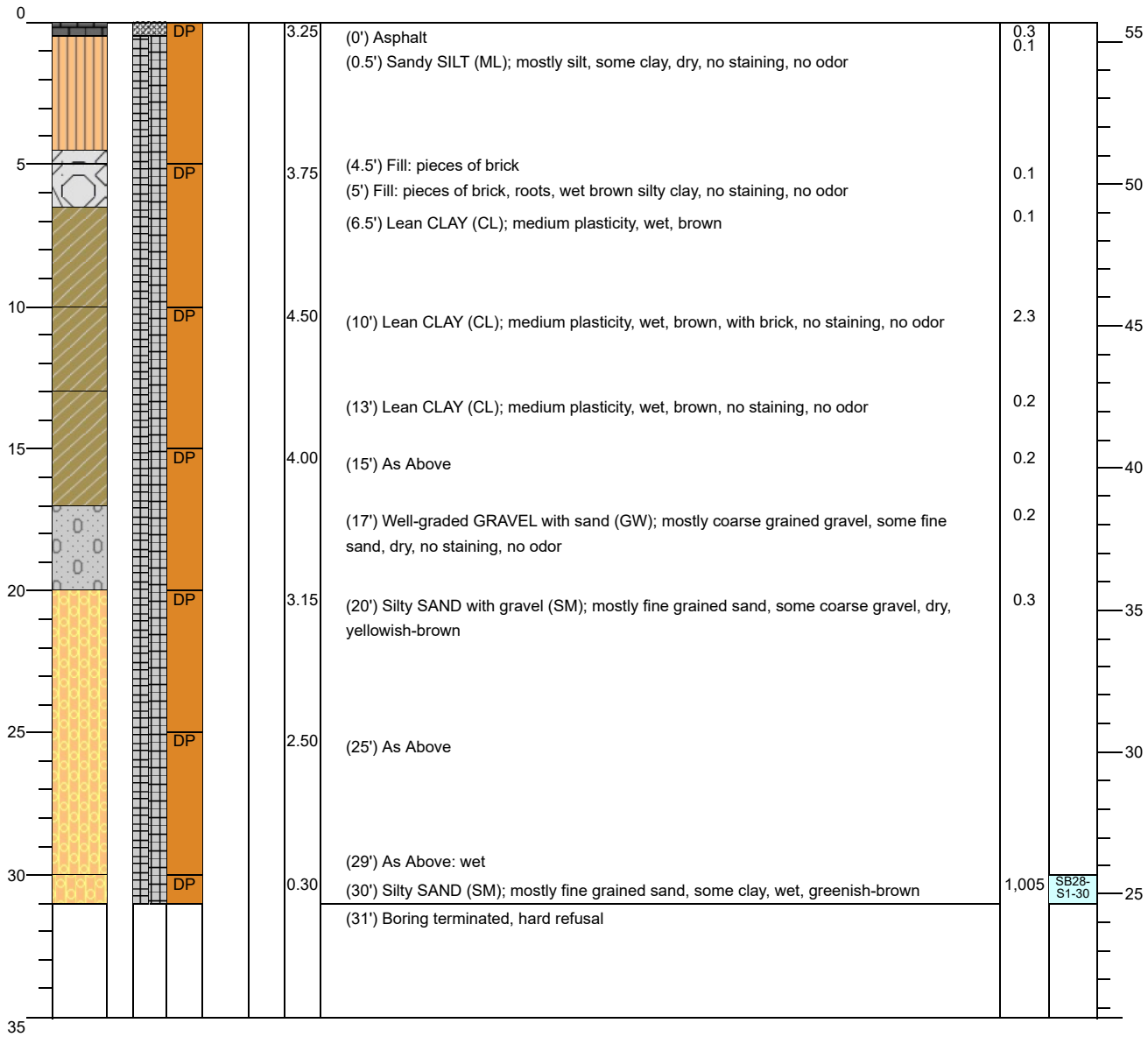
Drilling Start Date:	**05/30/2018**	Boring Depth (ft):	**34.0**
Drilling End Date:	**05/30/2018**	Boring Diameter (in):	**2.25**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**33.0**
Drilling Equipment:	**Geoprobe MC5**	DTW After Drilling (ft):	**30.0**
Driller:	**TD**	Ground Surface Elev. (ft):	**55.19**
Logged By:	**ATK**	Location (Lat, Long):	**45.515252, -122.660363**



NOTES: Hole precleared by Pacific Geophysics. Water sample W27 collected at 30.0 ft bgs.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB28
	Address: 1024 SE Grand Ave, Portland, OR	Page: 14 of 21

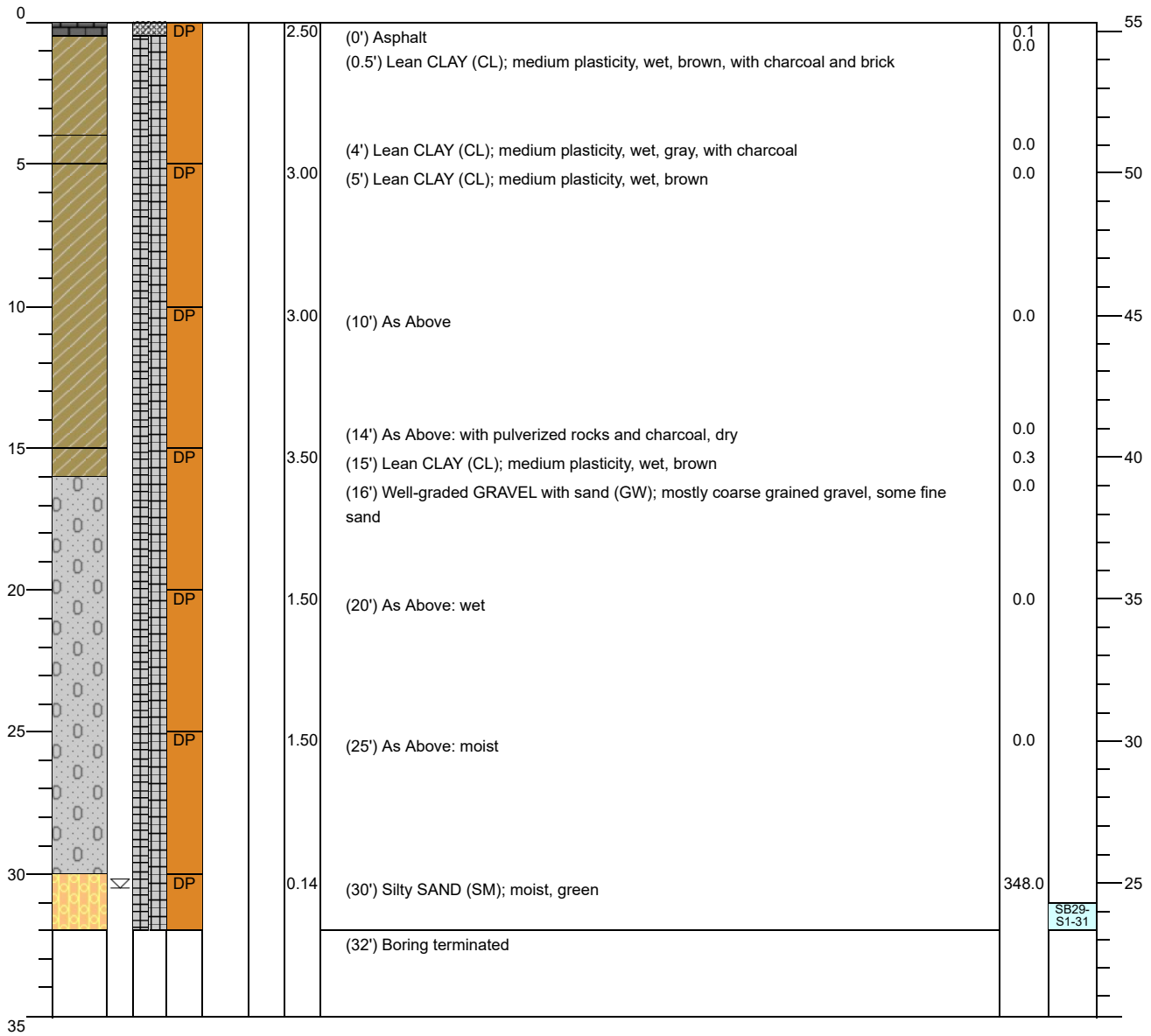
Drilling Start Date:	**05/30/2018**	Boring Depth (ft):	**31.0**
Drilling End Date:	**05/30/2018**	Boring Diameter (in):	**2.25**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe MC5**	DTW After Drilling (ft):	**N/A**
Driller:	**TD**	Ground Surface Elev. (ft):	**55.68**
Logged By:	**TL**	Location (Lat, Long):	**45.515275, -122.660606**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Caldwell Properties LLC	BORING LOG
	Project: 1024 SE Grand Ave	Boring No. SB29
	Address: 1024 SE Grand Ave, Portland, OR	Page: 15 of 21

Drilling Start Date:	**05/30/2018**	Boring Depth (ft):	**32.0**
Drilling End Date:	**05/30/2018**	Boring Diameter (in):	**2.25**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**30.5**
Drilling Equipment:	**Geoprobe MC5**	DTW After Drilling (ft):	**N/A**
Driller:	**TD**	Ground Surface Elev. (ft):	**55.31**
Logged By:	**TL**	Location (Lat, Long):	**45.5152, -122.660424**



NOTES: Hole precleared by Pacific Geophysics. Water sample W29 collected at 30.5 ft bgs.

point source solutions	Client:	Arcoa Partners LLC	WELL LOG	
	Project:	Arcoa Building Monitoring Wells	Well No.	MW1
	Address:	1006 SE Grand Ave, Portland, OR	Page:	16 of 21

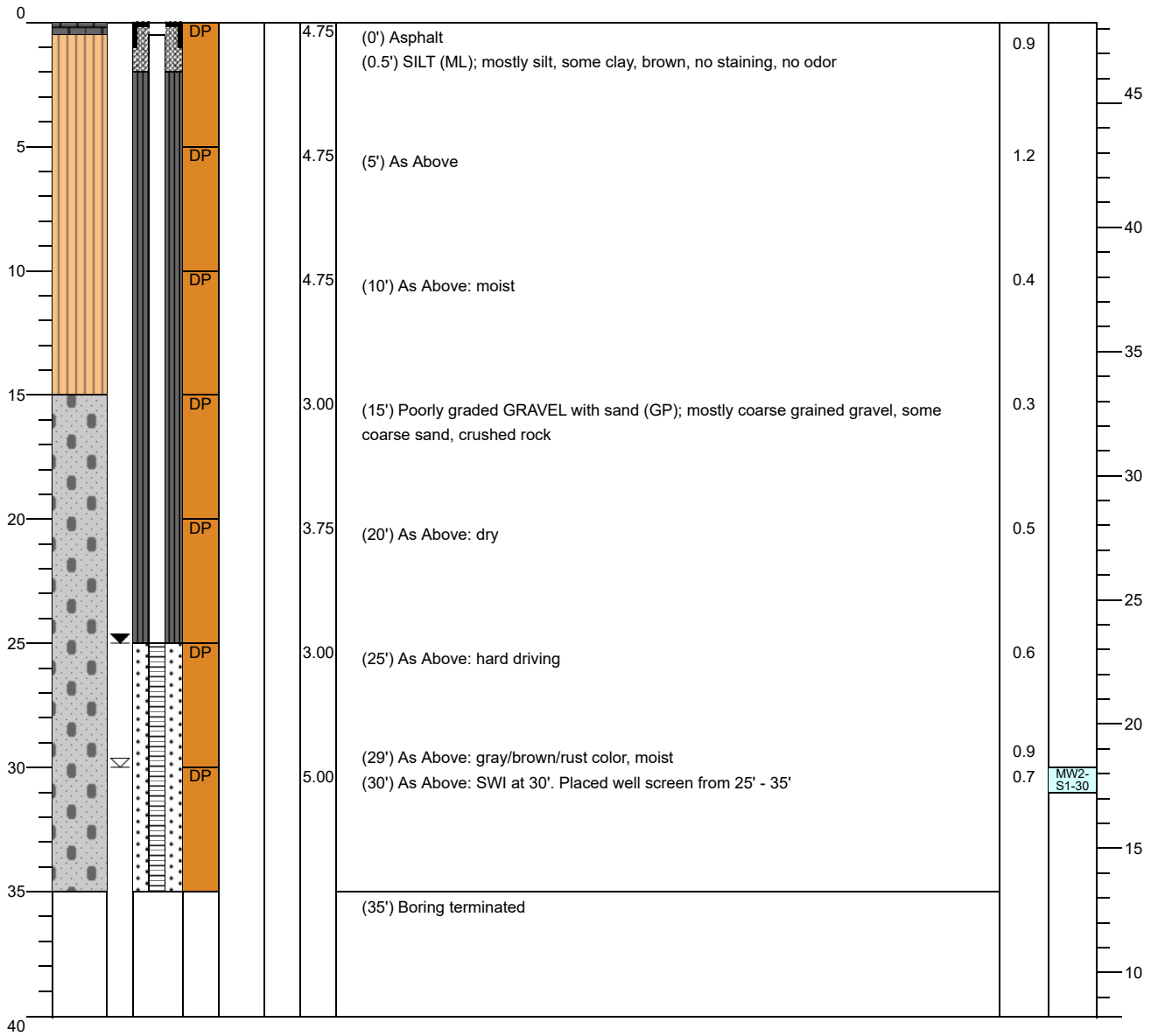
Drilling Start Date:	08/28/2019	Boring Depth (ft):	33.0	Well Depth (ft):	33.0
Drilling End Date:	08/28/2019	Boring Diameter (in):	2.25	Well Diameter (in):	0.75
Drilling Company:	Cascade	Sampling Method(s):	Direct Push	Screen Slot (in):	0.001
Drilling Method:	Direct Push	DTW During Drilling (ft):	26.0	Riser Material:	Sch 40 PVC
Drilling Equipment:	Geoprobe MC5/DT22	DTW After Drilling (ft):	24.9	Screen Material:	PVC Prepack
Driller:	TD	Top of Casing Elev. (ft):	48.08	Seal Material(s):	Bent. Chips
Logged By:	ATK	Location (Lat, Long):	45.515714, -122.660057	Filter Type:	Prepack

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0				DP			4.25	(0') SILT (ML); mostly silt, some clay, light brown	0.0		45
5				DP			5.00	(5') Elastic SILT (MH); moist, light brown	0.7		40
10				DP			5.00	(10') As Above	0.4		35
15				DP			1.00	(15') Poorly graded GRAVEL with sand (GP); mostly coarse grained gravel, some coarse sand, dry, hard driving	0.6		30
20				DP			2.50	(20') As Above	0.5		25
25		▼		DP			2.50	(25') As Above	0.5		
								(26') As Above: wet, no staining, no odor	0.4	MW1-S1-26	20
30				DP			4.75	(30') As Above	0.4		15
35								(33') Boring terminated			

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client:	Arcoa Partners LLC	WELL LOG
	Project:	Arcoa Building Monitoring Wells	Well No. MW2
	Address:	1006 SE Grand Ave, Portland, OR	Page: 17 of 21

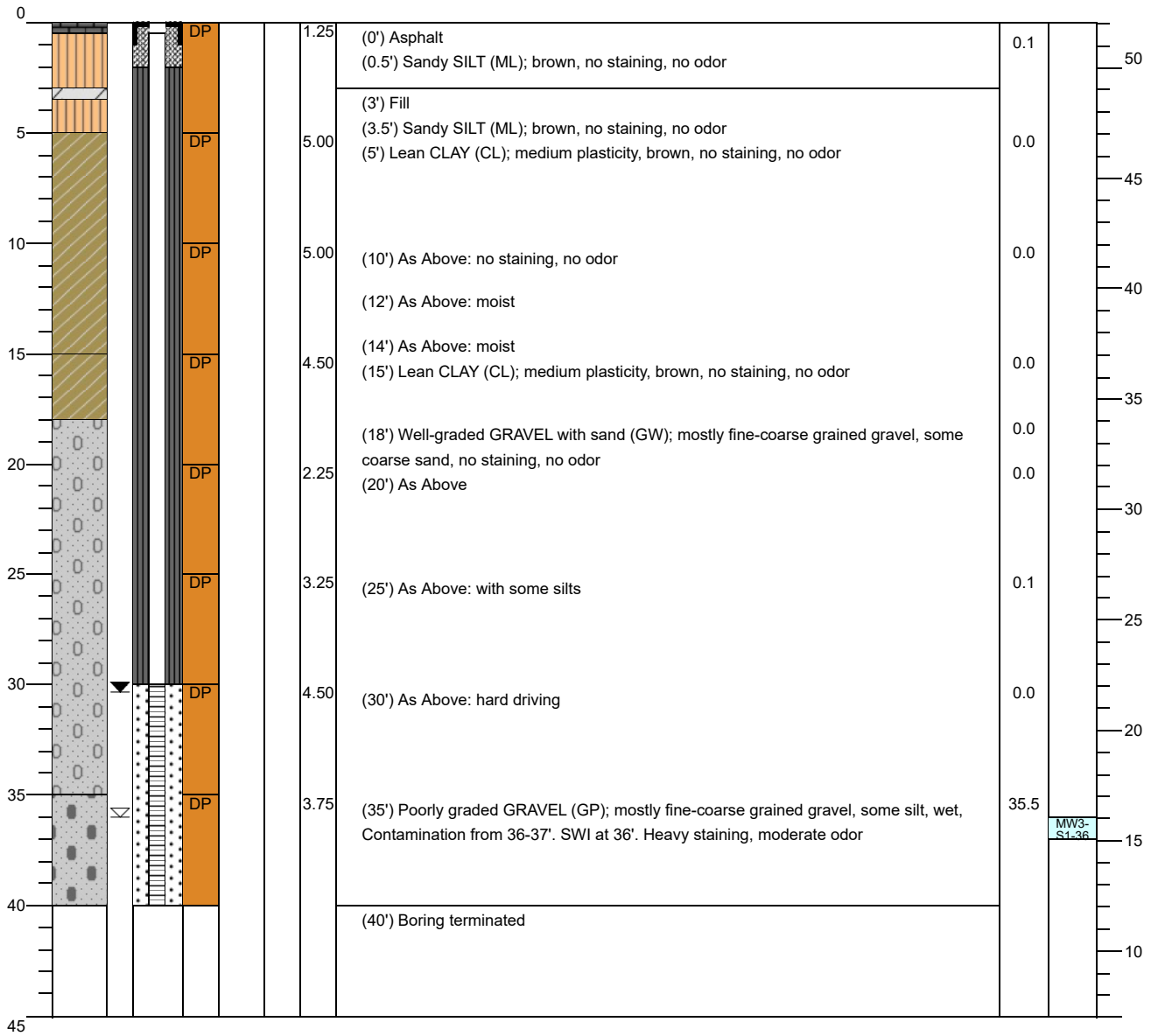
Drilling Start Date:	**08/28/2019**	Boring Depth (ft):	**35.0**	Well Depth (ft):	**35.0**
Drilling End Date:	**08/28/2019**	Boring Diameter (in):	**2.25**	Well Diameter (in):	**0.75**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**	Screen Slot (in):	**0.001**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**30.0**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe MC5/DT22**	DTW After Drilling (ft):	**25.0**	Screen Material:	**PVC Prepack**
Driller:	**TD**	Top of Casing Elev. (ft):	**48.24**	Seal Material(s):	**Bent. Chips**
Logged By:	**ATK**	Location (Lat, Long):	**45.515491, -122.65992**	Filter Type:	**Prepack**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client:	Arcoa Partners LLC	WELL LOG	
	Project:	Arcoa Building Monitoring Wells	Well No.	MW3
	Address:	1024 SE Grand Ave, Portland, OR	Page:	18 of 21

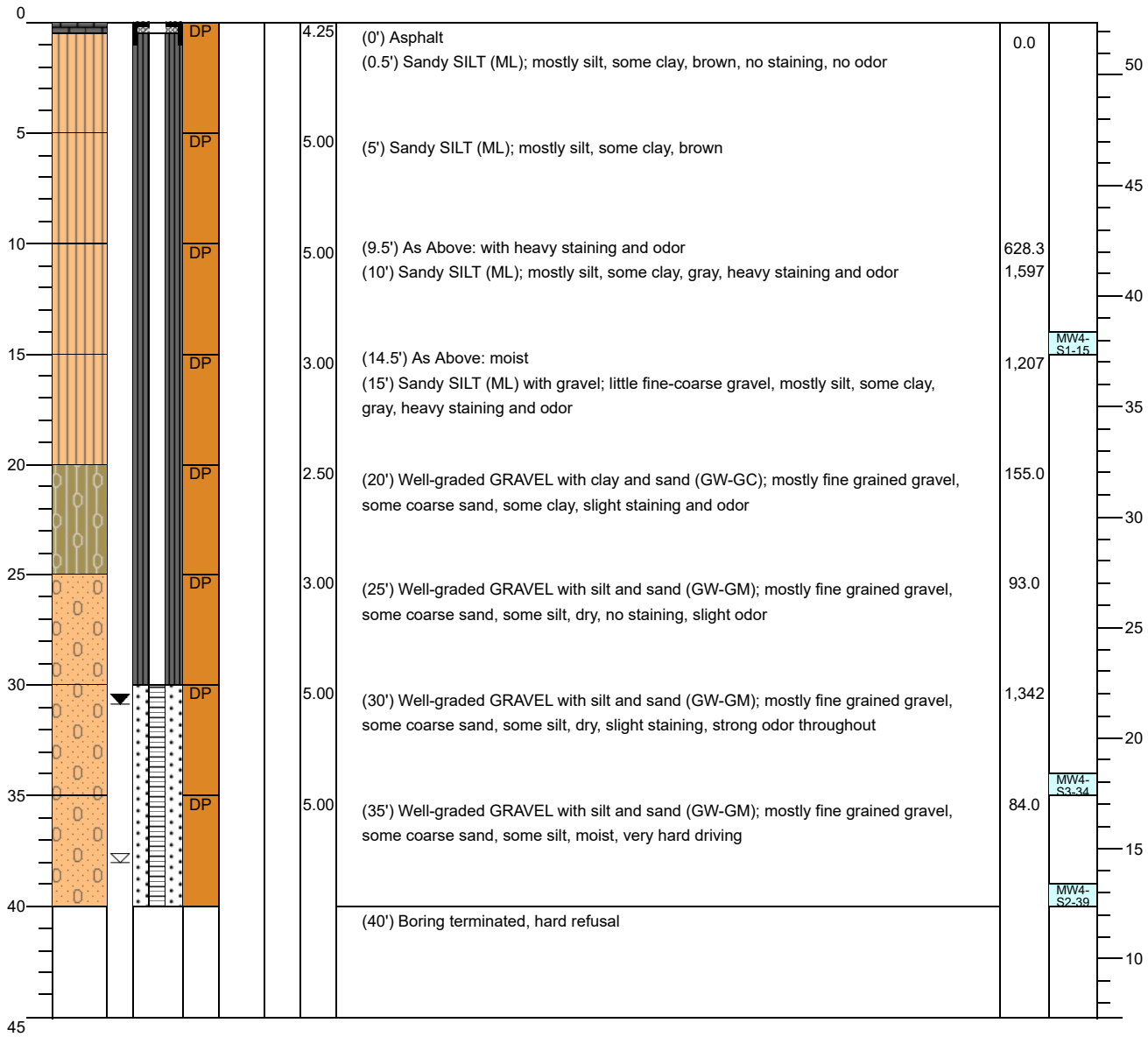
Drilling Start Date:	08/29/2019	Boring Depth (ft):	40.0	Well Depth (ft):	40.0
Drilling End Date:	08/29/2019	Boring Diameter (in):	2.25	Well Diameter (in):	0.75
Drilling Company:	Cascade	Sampling Method(s):	Direct Push	Screen Slot (in):	0.001
Drilling Method:	Direct Push	DTW During Drilling (ft):	36.0	Riser Material:	Sch 40 PVC
Drilling Equipment:	Geoprobe MC5/DT22	DTW After Drilling (ft):	30.3	Screen Material:	PVC Prepack
Driller:	TD	Top of Casing Elev. (ft):	52.06	Seal Material(s):	Bent. Chips
Logged By:	JR	Location (Lat, Long):	45.515218, -122.660285	Filter Type:	Prepack



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client:	Arcoa Partners LLC	WELL LOG
	Project:	Arcoa Building Monitoring Wells	Well No. MW4
	Address:	1006 SE Grand Ave, Portland, OR	Page: 19 of 21

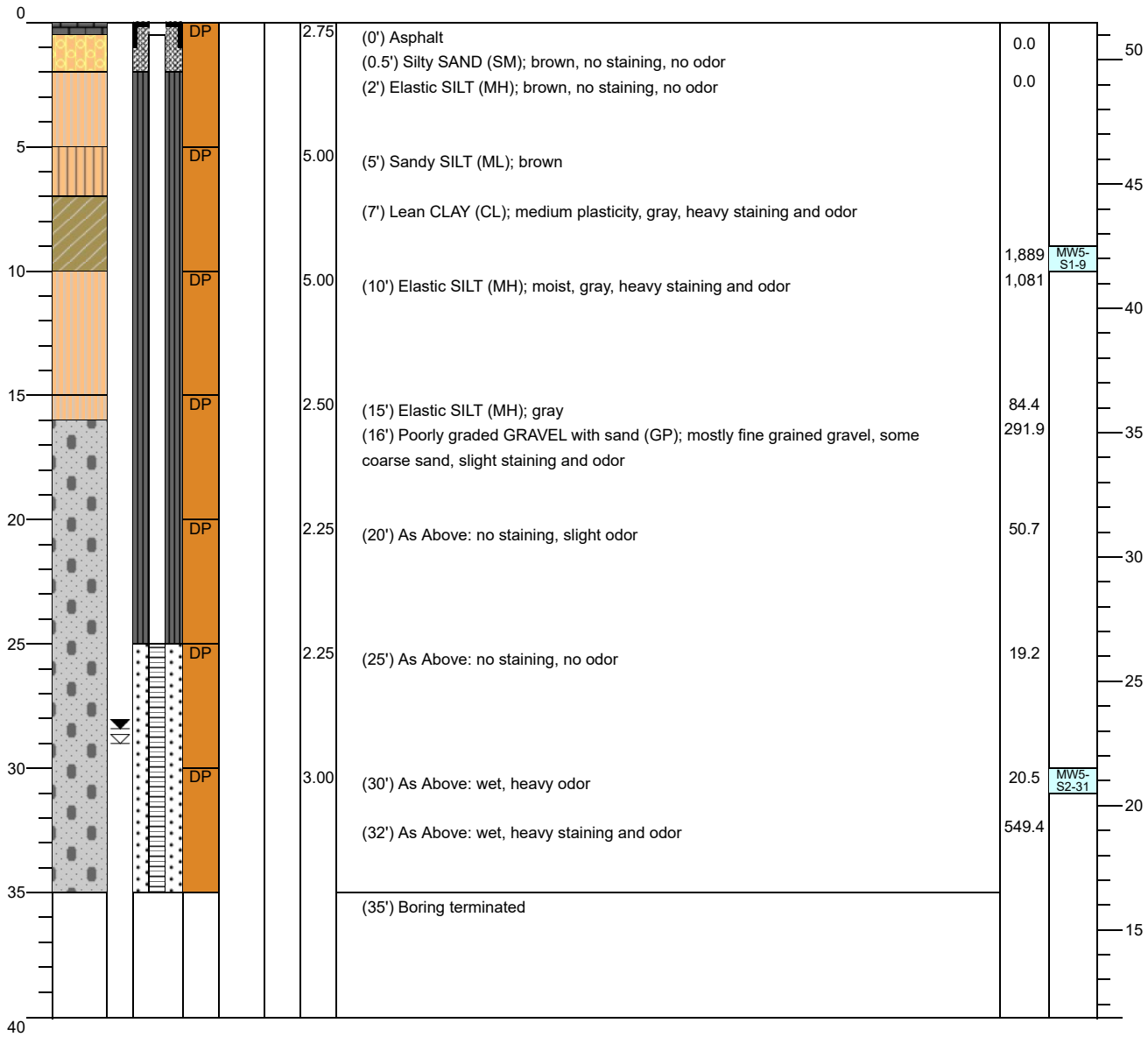
Drilling Start Date:	08/29/2019	Boring Depth (ft):	40.0	Well Depth (ft):	40.0
Drilling End Date:	08/29/2019	Boring Diameter (in):	2.25	Well Diameter (in):	0.75
Drilling Company:	Cascade	Sampling Method(s):	Direct Push	Screen Slot (in):	0.001
Drilling Method:	Direct Push	DTW During Drilling (ft):	38.0	Riser Material:	Sch 40 PVC
Drilling Equipment:	Geoprobe MC5/DT22	DTW After Drilling (ft):	30.8	Screen Material:	PVC Prepack
Driller:	TD	Top of Casing Elev. (ft):	52.38	Seal Material(s):	Bent. Chips
Logged By:	JR	Location (Lat, Long):	45.515503, -122.660611	Filter Type:	Prepack



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: Arcoa Building Monitoring Wells	Well No. MW5
	Address: 1006 SE Grand Ave, Portland, OR	Page: 20 of 21

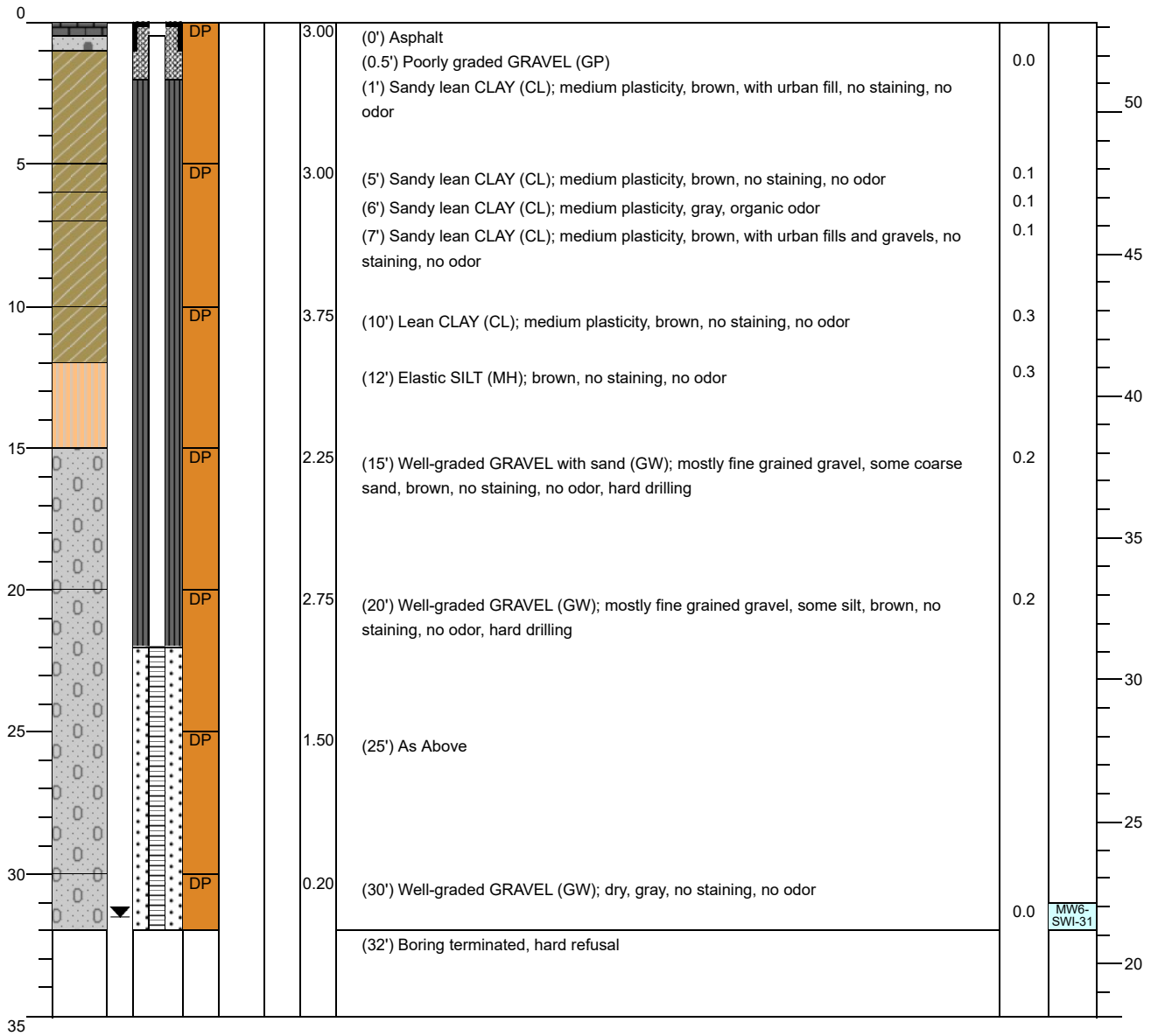
Drilling Start Date:	**08/29/2019**	Boring Depth (ft):	**35.0**	Well Depth (ft):	**35.0**
Drilling End Date:	**08/29/2019**	Boring Diameter (in):	**2.25**	Well Diameter (in):	**0.75**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**	Screen Slot (in):	**0.001**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**29.0**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe MC5/DT22**	DTW After Drilling (ft):	**28.4**	Screen Material:	**PVC Prepack**
Driller:	**TD**	Top of Casing Elev. (ft):	**51.52**	Seal Material(s):	**Bent. Chips**
Logged By:	**JR**	Location (Lat, Long):	**45.515503, -122.660439**	Filter Type:	**Prepack**



NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client:	Arcoa Partners LLC	WELL LOG	
	Project:	Arcoa Building Monitoring Wells	Well No.	MW6
	Address:	1024 SE Grand Ave, Portland, OR	Page:	21 of 21

Drilling Start Date:	07/29/2020	Boring Depth (ft):	32.0	Well Depth (ft):	32.0
Drilling End Date:	07/29/2020	Boring Diameter (in):	2.25	Well Diameter (in):	0.75
Drilling Company:	Cascade	Sampling Method(s):	Direct Push	Screen Slot (in):	0.001
Drilling Method:	Direct Push	DTW During Drilling (ft):	N/A	Riser Material:	Sch 40 PVC
Drilling Equipment:	Geoprobe MC5/DT22	DTW After Drilling (ft):	31.5	Screen Material:	PVC Prepack
Driller:	JB	Top of Casing Elev. (ft):	53.16	Seal Material(s):	Bent. Chips
Logged By:	JR	Location (Lat, Long):	45.515208, -122.660577	Filter Type:	Prepack



DEPTH (ft)	Sample Type	Time	Blow Counts	Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm)	Lab Sample	ELEVATION (ft)
0	DP			3.00	(0') Asphalt (0.5') Poorly graded GRAVEL (GP) (1') Sandy lean CLAY (CL); medium plasticity, brown, with urban fill, no staining, no odor	0.0		50
5	DP			3.00	(5') Sandy lean CLAY (CL); medium plasticity, brown, no staining, no odor	0.1		
					(6') Sandy lean CLAY (CL); medium plasticity, gray, organic odor	0.1		
					(7') Sandy lean CLAY (CL); medium plasticity, brown, with urban fills and gravels, no staining, no odor	0.1		45
10	DP			3.75	(10') Lean CLAY (CL); medium plasticity, brown, no staining, no odor	0.3		
					(12') Elastic SILT (MH); brown, no staining, no odor	0.3		40
15	DP			2.25	(15') Well-graded GRAVEL with sand (GW); mostly fine grained gravel, some coarse sand, brown, no staining, no odor, hard drilling	0.2		
20	DP			2.75	(20') Well-graded GRAVEL (GW); mostly fine grained gravel, some silt, brown, no staining, no odor, hard drilling	0.2		35
25	DP			1.50	(25') As Above			30
30	DP			0.20	(30') Well-graded GRAVEL (GW); dry, gray, no staining, no odor	0.0	MW6-SWI-31	25
35					(32') Boring terminated, hard refusal			20

NOTES: Hole precleared by Pacific Geophysics.

point source solutions	Client: Arcoa Partners LLC	BORING LOG
	Project: 1006 SE Grand Ave	Boring No. SB9
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**4/6/22**	Boring Depth (ft):	**6.0**
Drilling End Date:	**4/6/22**	Boring Diameter (in):	**1.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**KF**	Ground Surface Elev. (ft):	**54**
Logged By:	**KF**	Location (Lat, Long):	**45.51557, -122.66059**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0				DP			1.00	(0') Concrete			
								(1') Lean CLAY with gravel (CL); some coarse gravel, little fine sand, brown, no staining, no odor	0.4	SB9-S1	
				DP			1.20	(2') Poorly graded SAND with gravel (SP); fine grained, some coarse gravel, brown, no staining, no odor	0.3	SB9-S2	
				DP			1.20	(4') As Above: moist	0.5	SB9-S2	50
5											
								(6') Boring terminated			
											45
10											

NOTES: Hole precleared on 4/6/22 by Rush Locates.

point source solutions	Client: Arcoa Partners LLC	BORING LOG
	Project: 1006 SE Grand Ave	Boring No. SB10
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

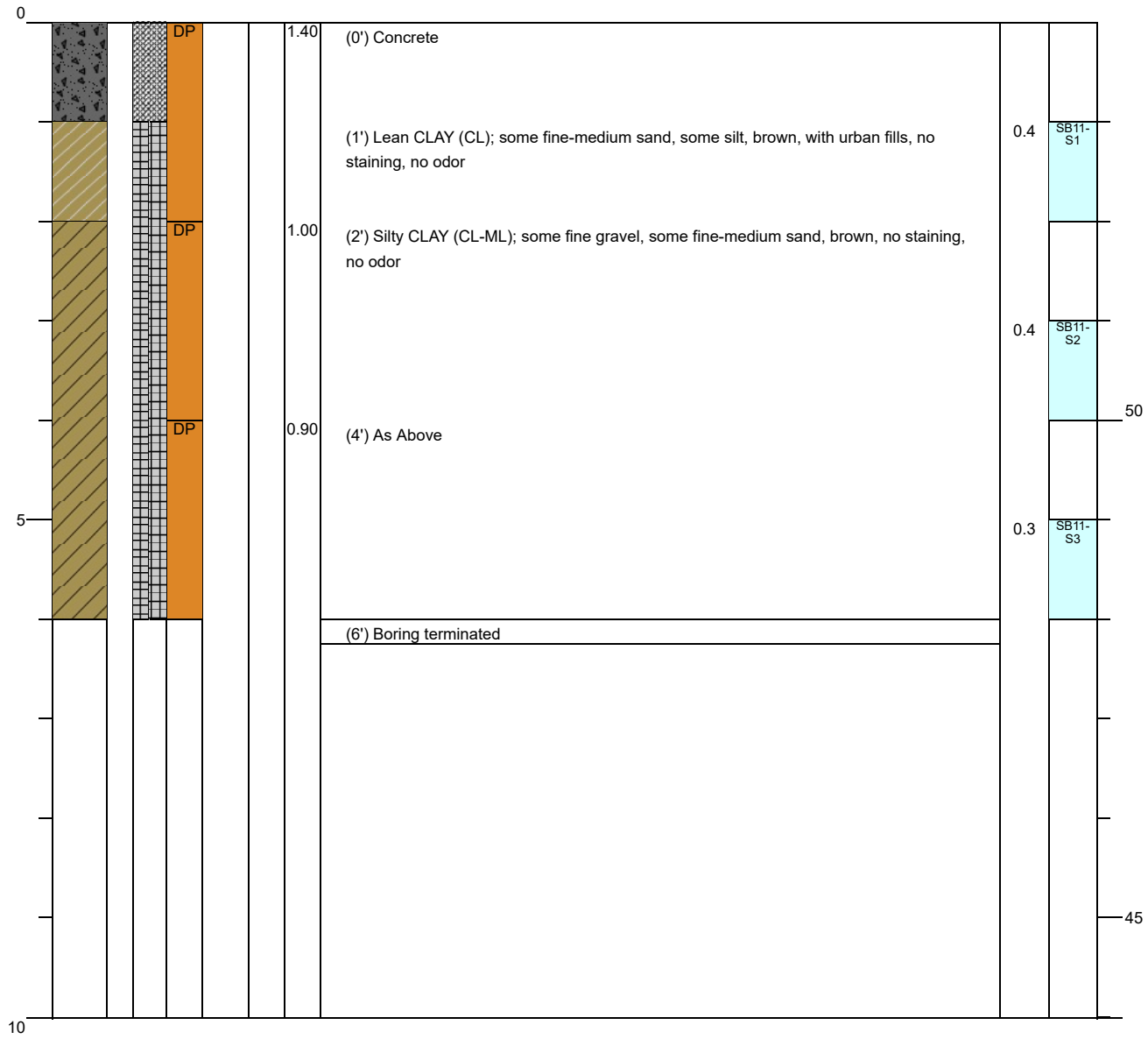
Drilling Start Date:	**4/6/22**	Boring Depth (ft):	**4.0**
Drilling End Date:	**4/6/22**	Boring Diameter (in):	**1.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**KF**	Ground Surface Elev. (ft):	**54**
Logged By:	**KF**	Location (Lat, Long):	**45.51555, -122.66059**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0				DP			1.00	(0') Concrete			
								(1') Lean CLAY with sand (CL); some fine sand, brown, no staining, no odor	0.5	SB10-S1	
				DP			0.20	(2') Well-graded SAND (SW); brown, no staining, no odor	0.4	SB10-S2	
								(4') Boring terminated, refusal			50
5											
											45
10											

NOTES: Hole precleared on 4/6/22 by Rush Locates.

point source solutions	**Client:** Arcoa Partners LLC **Project:** 1006 SE Grand Ave **Address:** 1006 SE Grand Ave, Portland, OR	**BORING LOG** **Boring No.** SB11 **Page:** 1 of 1

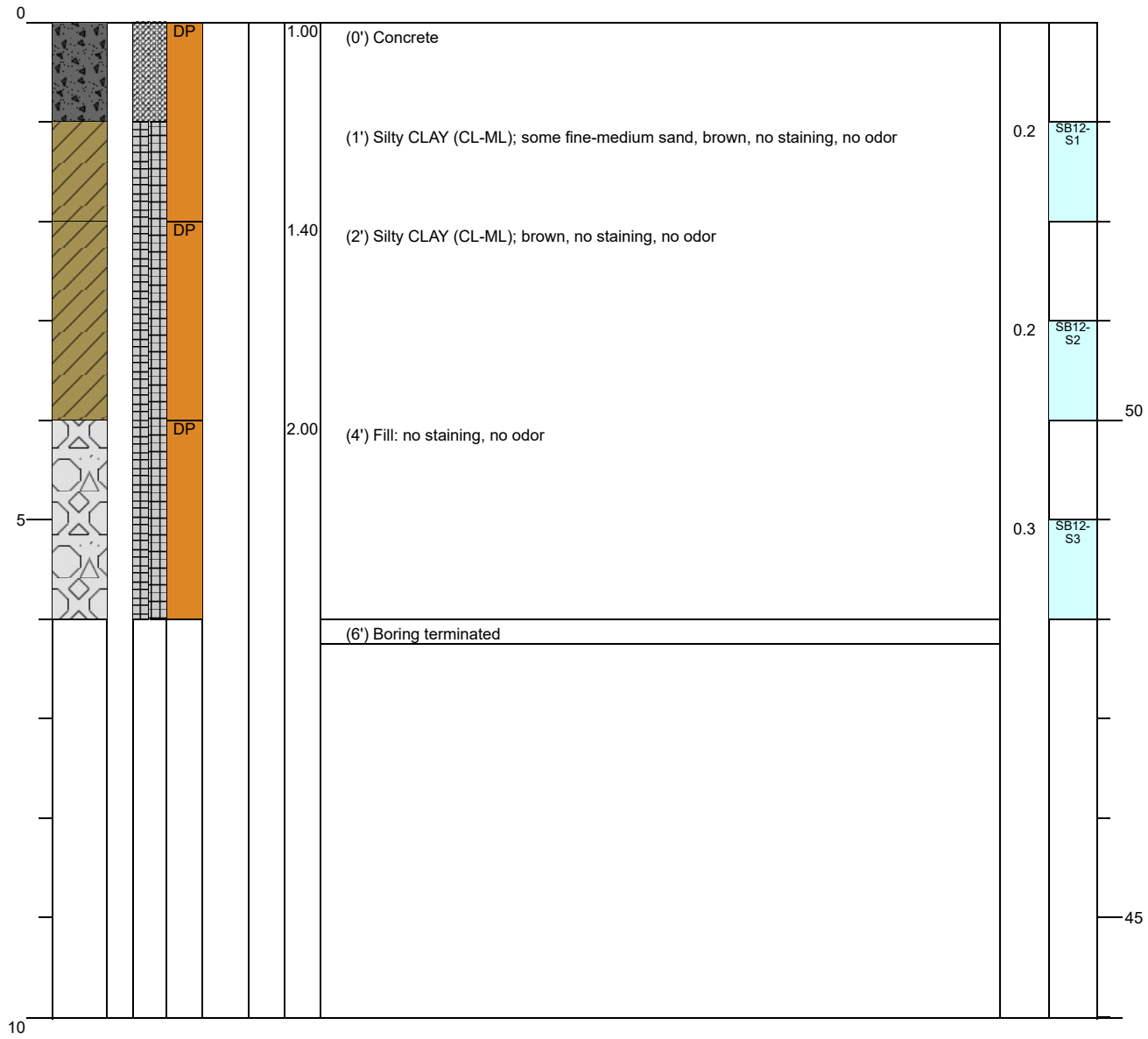
Drilling Start Date:	**4/6/22**	Boring Depth (ft):	**6.0**
Drilling End Date:	**4/6/22**	Boring Diameter (in):	**1.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**KF**	Ground Surface Elev. (ft):	**54**
Logged By:	**JR**	Location (Lat, Long):	**45.51557, -122.66061**



NOTES: Hole precleared on 4/6/22 by Rush Locates.

point source solutions	Client: Arcoa Partners LLC	BORING LOG
	Project: 1006 SE Grand Ave	Boring No. SB12
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**4/6/22**	Boring Depth (ft):	**6.0**
Drilling End Date:	**4/6/22**	Boring Diameter (in):	**1.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**KF**	Ground Surface Elev. (ft):	**54**
Logged By:	**JR**	Location (Lat, Long):	**45.51558, -122.66059**



NOTES: Hole precleared on 4/6/22 by Rush Locates.

point source solutions	Client: Arcoa Partners LLC	BORING LOG
	Project: 1006 SE Grand Ave	Boring No. SB13
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

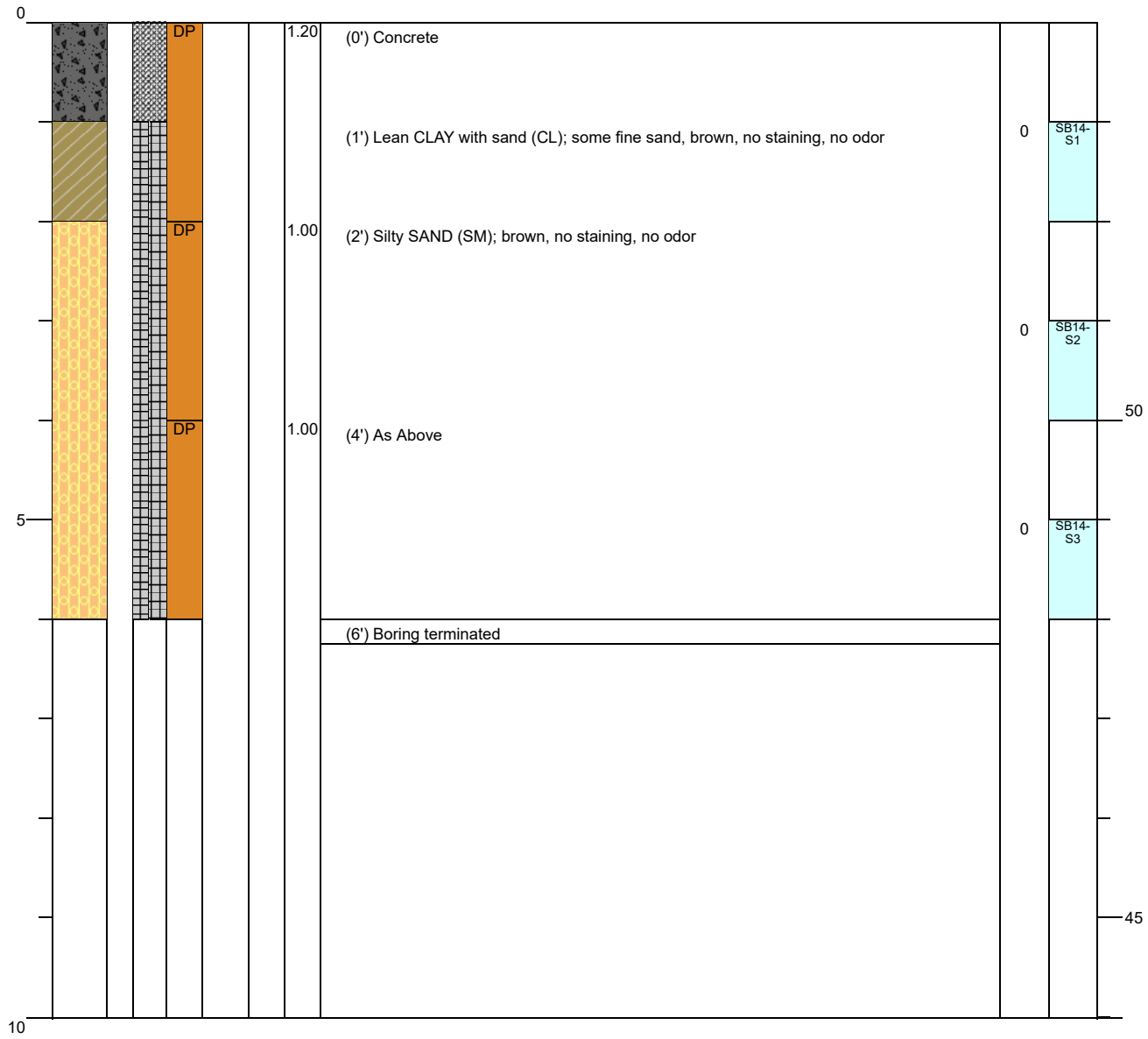
Drilling Start Date:	**4/6/22**	Boring Depth (ft):	**6.0**
Drilling End Date:	**4/6/22**	Boring Diameter (in):	**1.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**KF**	Ground Surface Elev. (ft):	**54**
Logged By:	**JR**	Location (Lat, Long):	**45.51559, -122.66059**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	BORING COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	ELEVATION (ft)
0				DP			1.20	(0') Concrete			
								(1') Lean CLAY with gravel (CL); some coarse gravel, brown, no staining, no odor	0.2	SB13-S1	
				DP			2.00	(2') Silty SAND (SM); brown, no staining, no odor	0.1	SB13-S2	
				DP			2.00	(4') As Above			50
5									0.1	SB13-S3	
								(6') Boring terminated			
											45
10											

NOTES: Hole precleared on 4/6/22 by Rush Locates.

point source solutions	Client: Arcoa Partners LLC	BORING LOG
	Project: 1006 SE Grand Ave	Boring No. SB14
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**4/6/22**	Boring Depth (ft):	**6.0**
Drilling End Date:	**4/6/22**	Boring Diameter (in):	**1.25**
Drilling Company:	**Point Source Solutions**	Sampling Method(s):	**Direct Push**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**
Drilling Equipment:	**Geoprobe LB**	DTW After Drilling (ft):	**N/A**
Driller:	**JR**	Ground Surface Elev. (ft):	**54**
Logged By:	**KF**	Location (Lat, Long):	**45.51557, -122.66056**



NOTES: Hole precleared on 4/6/22 by Rush Locates.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. EXT-1
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/6/22**	Boring Depth (ft):	**5.16**	Well Depth (ft):	**5.16**
Drilling End Date:	**12/6/22**	Boring Diameter (in):	**4.00**	Well Diameter (in):	**2**
Drilling Company:	**Cascade**	Sampling Method(s):	**N/A**	Screen Slot (in):	**0.020**
Drilling Method:	**Hand Auger Rig**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Hand Auger**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 80 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Concrete			0
								(1.16') Silty CLAY (CL-ML); some coarse gravel, brown	0		
								(2.58') Cobbles: with gravel			
								(3') Cobbles: with gravel. Refusal at 5.16'	0		
5								(5.16') Boring terminated			5
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Screen set from 3.08' bgs to 5.16' bgs

point source solutions	**Client:** Arcoa Partners LLC **Project:** 1006 SE Grand Ave **Address:** 1006 SE Grand Ave, Portland, OR	**WELL LOG** **Well No.** MP-1 **Page:** 1 of 1

Drilling Start Date:	**12/6/22**	Boring Depth (ft):	**3.75**	Well Depth (ft):	**3.75**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**2.25**	Well Diameter (in):	**1**
Drilling Company:	**Cascade**	Sampling Method(s):	**N/A**	Screen Slot (in):	**0.020**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe 420M**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Concrete			0
								(1.16') Silty CLAY (CL-ML); some silt, brown	0		
								(1.75') Silty SAND with gravel (SM); some coarse gravel, brown	0		
								(2.25') Silty CLAY (CL-ML); brown (2.5') Silty CLAY (CL-ML); brown, coarse gravel in shoe. Refusal in cobbles at 3.75' bgs	0		
								(3.75') Boring terminated			
5											5
10											10

NOTES: Hole precleared on 12/2/22. Set screen from 1.75' to 3.75' bgs. Riser stubbed up 1' above slab. Sand pack from 1.5' to 3.75'. Bentonite seal from 1.5' to 0.33'.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. MP-2
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/6/22**	Boring Depth (ft):	**6.25**	Well Depth (ft):	**6.25**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**2.25**	Well Diameter (in):	**1**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**	Screen Slot (in):	**0.020**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe 420M**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder/Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0				DP			1.80	(0') Concrete			0
								(1') Silty SAND (SM); brown	0		
				DP			2.70	(3') Silty SAND (SM); brown	0		
								(4') SILT (ML); brown	0		
5								(5') Elastic SILT (MH); moist, brown	0		5
				DP				(6') No Recovery: cobble stuck in shoe. Refusal at 6.25'			
								(6.25') Boring terminated, progress refusal at 6.25' bgs			
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Set screen from 2' to 4' bgs. Riser stubbed up 1' above slab. Sand pack from 1.5' to 4' bgs. Bentonite seal from 0.67' to 1.5' bgs. Sealed with concrete from ground surface to 0.67' bgs.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. MP-3
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/7/22**	Boring Depth (ft):	**4.41**	Well Depth (ft):	**4.41**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**2.25**	Well Diameter (in):	
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**	Screen Slot (in):	**0.020**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe 420M**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0				DP			2.25	(0') Concrete			0
								(0.67') Sandy SILT (ML); brown, with few concrete pieces	0		
								(1') Sandy SILT (ML); brown	0		
				DP			0.07	(3') Sandy SILT (ML); brown	0		
								(4.41') Boring terminated			
5											5
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Set screen from 2.41 to 4.41' bgs. Riser stubbed up 12" above slab. Sand pack from 1.91 to 4.41' bgs. Bentonite seal from 0.33' to 1.91' bgs.

point source solutions	**Client:** Arcoa Partners LLC **Project:** 1006 SE Grand Ave **Address:** 1006 SE Grand Ave, Portland, OR	**WELL LOG** **Well No.** MP-4 **Page:** 1 of 1

Drilling Start Date:	**12/7/22**	Boring Depth (ft):	**2**	Well Depth (ft):	**2**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**4.00**	Well Diameter (in):	**1**
Drilling Company:	**Cascade**	Sampling Method(s):	**N/A**	Screen Slot (in):	**0.020**
Drilling Method:	**Hand Auger Rig**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Hand Auger**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Concrete			0
								(0.91') Silty CLAY (CL-ML); brown	0		
								(2') Boring terminated. Beginning of cobble/gravel/sand layer			
5											5
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Set screen from 1' to 2' bgs. Riser stubbed up 1' above slab. Sand pack from 0.91' to 2.0' bgs. Bentonite seal from 0.41' to 0.91' bgs.

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX D
OWRD MONITORING WELL REPORTS

MULT 132600

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

9/4/2019

WELL I.D. LABEL# L 131767

START CARD # 1044501

(1) LAND OWNER

Owner Well I.D. MW-1

First Name 306-19-1134 Last Name POINT SOURCE SOLUTIO

Company ALCOA PARTNERS LLC

Address 2222 NE OREGON ST #201

City PORTLAND State OR Zip 97232

(2) TYPE OF WORK

[X] New [ ] Deepening [ ] Conversion
[ ] Alteration (repair/recondition) [ ] Abandonment

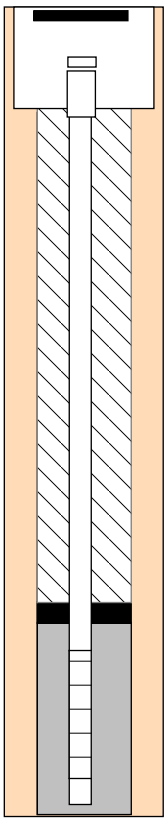
(3) DRILL METHOD

[ ] Rotary Air [ ] Rotary Mud [ ] Cable [ ] Hollow Stem Auger [ ] Cable Mud
[ ] Reverse Rotary [X] Other DIRECT PUSH

(4) CONSTRUCTION

Piezometer Well [ ]

Depth of Completed Well 33.00 ft. Special Standard [ ]



MONUMENT/VAULT Below Ground
From 0 To 1

BORE HOLE
Diameter 2.5 From 0 To 33

CASING
Dia. 0.75 From [ ] 0 To 23
Gauge SCH40 Wld [ ] Thrd [X]
Material ◯ Steel ◉ Plastic

LINER
Dia. From [ ] To
Gauge Wld [ ] Thrd [ ]
Material ◯ Steel ◯ Plastic

SEAL
From 0 To 2
Material Concrete
Amount 0.25 Sacks Grout weight

SCREEN
Casing/Liner Casing Material PVC pre pack
Diameter 0.75 From 23 To 33
Slot Size 0.001

FILTER
From 21 To 33 Material PRE PACK Size of pack 10/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature 56 °F Lab analysis [ ] Yes By

Supervising Geologist/Engineer

Water quality concerns? [ ] Yes (describe below) TDS amount 100 ppm

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County MULTNOMAH Twp 1.00 S N/S Range 1.00 E E/W WM
Sec 2 SW 1/4 of the NW 1/4 Tax Lot 1300
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
◯ Street address of well ◉ Nearest address
1006 SE GRAND AVE, PORTLAND, OR 97201

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			[ ]	
Completed Well			[ ]	

Flowing Artesian? [ ] Dry Hole? [ ]

WATER BEARING ZONES Depth water was first found 29.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
8/20/2019	29	33			[ ]	29
					[ ]	
					[ ]	
					[ ]	
					[ ]	

(8) WELL LOG

Ground Elevation

Material	From	To
CONCRETE	0	2
BENTONITE CHIPS	2	23
10/20 SILCA SAND	23	33

Date Started 8/28/2019 Completed 8/28/2019

(unbonded) Monitor Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 10586 Date 9/4/2019
Password : (if filing electronically)
Signed TYLER DAY (E-filed)

(bonded) Monitor Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief.

License Number 10443 Date 9/4/2019
Password : (if filing electronically)
Signed RYAN GALBRETH (E-filed)
Contact Info (optional)

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version:

(4) CONSTRUCTION

BORE HOLE

Dia	From	To

FILTER PACK

From	To	Material	Size

SEAL

Material	From	To	Amt	sacks/ lbs	grout weight
Bentonite Chips	2	21	0.75	S	

CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn size/ slot width	Slot length	# of slots	Tele/ pipe size

(5) WELL TESTS

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(7) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(8) WELL LOG

Material	From	To

MONITORING WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

MULT 132600

9/4/2019

Map of Hole

MULT 132601

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

9/4/2019

WELL I.D. LABEL# L 131768

START CARD # 1044503

(1) LAND OWNER

Owner Well I.D. MW-2

First Name 306-19-1134 Last Name POINT SOURCE SOLUTIO

Company ALCOA PARTNERS LLC

Address 2222 NE OREGON ST #201

City PORTLAND State OR Zip 97232

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

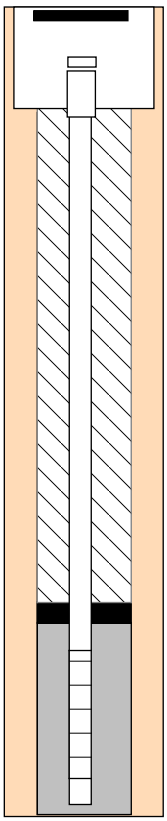
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☒ Other DIRECT PUSH

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 35.00 ft. Special Standard ☐



MONUMENT/VAULT below ground
From 0 To 1

BORE HOLE
Diameter 2.5 From 0 To 35

CASING
Dia. 0.75 From ☐ 0 To 25
Gauge SCH40 Wld ☐ Thrd ☒
Material ◯ Steel ◉ Plastic

LINER
Dia. ____ From ☐ ____ To ____
Gauge ____ Wld ☐ Thrd ☐
Material ◯ Steel ◯ Plastic

SEAL
From 0 To 2
Material Concrete
Amount 0.25 Sacks Grout weight ____

SCREEN
Casing/Liner Casing Material PVC pre pack
Diameter 0.75 From 25 To 35
Slot Size 0.001

FILTER
From 25 To 35 Material PRE PACK Size of pack 10/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature 56 °F Lab analysis ☐ Yes By ____

Supervising Geologist/Engineer ____

Water quality concerns? ☐ Yes (describe below) TDS amount 100 ppm

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County MULTNOMAH Twp 1.00 S N/S Range 1.00 E E/W WM
Sec 2 SW 1/4 of the NW 1/4 Tax Lot 1300
Tax Map Number ____ Lot ____
Lat ° ' " or ____ DMS or DD
Long ° ' " or ____ DMS or DD
◯ Street address of well ◉ Nearest address
1006 SE GRAND AVE, PORTLAND, OR 97201

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			☐	
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES
Depth water was first found 29.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
8/20/2019	29	35			☐	29
					☐	
					☐	
					☐	
					☐	

(8) WELL LOG

Ground Elevation ____

Material	From	To
CONCRETE	0	2
BENTONITE CHIPS	2	25
10/20 SILCA SAND	25	35

Date Started 8/28/2019 Completed 8/28/2019

(unbonded) Monitor Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 10586 Date 9/4/2019
Password : (if filing electronically) ____
Signed TYLER DAY (E-filed)

(bonded) Monitor Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief.

License Number 10443 Date 9/4/2019
Password : (if filing electronically) ____
Signed RYAN GALBRETH (E-filed)
Contact Info (optional) ____

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version:

(4) CONSTRUCTION

BORE HOLE

Dia	From	To

FILTER PACK

From	To	Material	Size

SEAL

Material	From	To	Amt	sacks/ lbs	grout weight
Bentonite Chips	2	23	0.75	S	

CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn size/ slot width	Slot length	# of slots	Tele/ pipe size

(5) WELL TESTS

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(7) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(8) WELL LOG

Material	From	To

MONITORING WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

MULT 132601

9/4/2019

Map of Hole

MULT 132603

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

9/4/2019

WELL I.D. LABEL# L 131769

START CARD # 1044502

(1) LAND OWNER

Owner Well I.D. MW-3

First Name 306-19-1134 Last Name POINT SOURCE SOLUTIO

Company ALCOA PARTNERS LLC

Address 2222 NE OREGON ST #201

City PORTLAND State OR Zip 97232

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

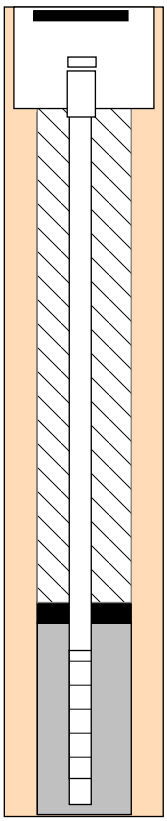
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☒ Other DIRECT PUSH

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 40.00 ft. Special Standard ☐



MONUMENT/VAULT below ground
From 0 To 1

BORE HOLE
Diameter 2.5 From 0 To 40

CASING
Dia. 0.75 From ☐ 0 To 30
Gauge SCH40 Wld ☐ Thrd ☒
Material ◯ Steel ◉ Plastic

LINER
Dia. From ☐ To
Gauge Wld ☐ Thrd ☐
Material ◯ Steel ◯ Plastic

SEAL
From 0 To 2
Material Concrete
Amount 0.25 Sacks Grout weight

SCREEN
Casing/Liner Casing Material PVC pre pack
Diameter 0.75 From 30 To 40
Slot Size 0.001

FILTER
From 30 To 40 Material PRE PACK Size of pack 10/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature 56 °F Lab analysis ☐ Yes By

Supervising Geologist/Engineer

Water quality concerns? ☐ Yes (describe below) TDS amount 100 ppm

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County MULTNOMAH Twp 1.00 S N/S Range 1.00 E E/W WM
Sec 2 SW 1/4 of the NW 1/4 Tax Lot 1300
Tax Map Number Lot
Lat ° ' " or DMS or DD
Long ° ' " or DMS or DD
◯ Street address of well ◉ Nearest address
1006 SE GRAND AVE, PORTLAND, OR 97201

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			☐	
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 29.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
8/29/2019	29	40			☐	29
					☐	
					☐	
					☐	
					☐	

(8) WELL LOG

Ground Elevation

Material	From	To
CONCRETE	0	2
BENTONITE CHIPS	2	30
10/20 SILCA SAND	30	40

Date Started 8/29/2019 Completed 8/29/2019

(unbonded) Monitor Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 10586 Date 9/4/2019
Password : (if filing electronically)
Signed TYLER DAY (E-filed)

(bonded) Monitor Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief.

License Number 10443 Date 9/4/2019
Password : (if filing electronically)
Signed RYAN GALBRETH (E-filed)
Contact Info (optional)

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version:

(4) CONSTRUCTION

BORE HOLE

Dia	From	To

FILTER PACK

From	To	Material	Size

SEAL

Material	From	To	Amt	sacks/ lbs	grout weight
Bentonite Chips	2	40	1.5	S	

CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn size/ slot width	Slot length	# of slots	Tele/ pipe size

(5) WELL TESTS

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(7) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(8) WELL LOG

Material	From	To

MONITORING WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

MULT 132603

9/4/2019

Map of Hole

MULT 132604

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

9/4/2019

WELL I.D. LABEL# L 131770

START CARD # 1044504

(1) LAND OWNER

Owner Well I.D. MW-4

First Name 306-19-1134 Last Name POINT SOURCE SOLUTIO

Company ALCOA PARTNERS LLC

Address 2222 NE OREGON ST #201

City PORTLAND State OR Zip 97232

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

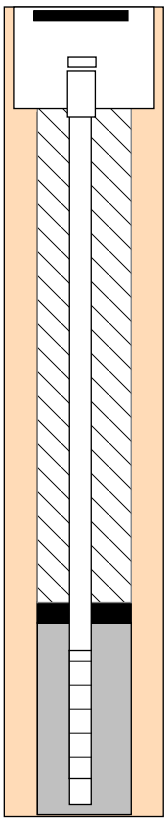
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☒ Other DIRECT PUSH

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 40.00 ft. Special Standard ☐



MONUMENT/VAULT Below Ground
From 0 To 1

BORE HOLE
Diameter 2.5 From 0 To 40

CASING
Dia. 0.75 From ☐ 0 To 30
Gauge SCH40 Wld Thrd
Material ◯ Steel ◉ Plastic ☐ ☒

LINER
Dia. From ☐ To
Gauge Wld Thrd
Material ◯ Steel ◯ Plastic ☐ ☐

SEAL
From 0 To 2
Material Concrete
Amount 0.25 Sacks Grout weight

SCREEN
Casing/Liner Casing Material PVC pre pack
Diameter 0.75 From 30 To 40
Slot Size 0.001

FILTER
From 30 To 40 Material PRE PACK Size of pack 10/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature 56 °F Lab analysis ☐ Yes By

Supervising Geologist/Engineer

Water quality concerns? ☐ Yes (describe below) TDS amount 100 ppm

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County MULTNOMAH Twp 1.00 S N/S Range 1.00 E E/W WM

Sec 2 SW 1/4 of the NW 1/4 Tax Lot 1300

Tax Map Number Lot

Lat ° ' " or DMS or DD

Long ° ' " or DMS or DD

◯ Street address of well ◉ Nearest address

1006 SE GRAND AVE, PORTLAND, OR 97201

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			☐	
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 29.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
8/29/2019	29	40			☐	29
					☐	
					☐	
					☐	
					☐	

(8) WELL LOG

Ground Elevation

Material	From	To
CONCRETE	0	2
BENTONITE CHIPS	2	30
10/20 SILCA SAND	30	40

Date Started 8/29/2019 Completed 8/29/2019

(unbonded) Monitor Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 10586 Date 9/4/2019

Password : (if filing electronically)

Signed TYLER DAY (E-filed)

(bonded) Monitor Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief.

License Number 10443 Date 9/4/2019

Password : (if filing electronically)

Signed RYAN GALBRETH (E-filed)

Contact Info (optional)

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version:

(4) CONSTRUCTION

BORE HOLE

Dia	From	To

FILTER PACK

From	To	Material	Size

SEAL

Material	From	To	Amt	sacks/ lbs	grout weight
Bentonite Chips	2	40	1.5	S	

CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn size/ slot width	Slot length	# of slots	Tele/ pipe size

(5) WELL TESTS

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(7) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(8) WELL LOG

Material	From	To

MONITORING WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

MULT 132604

9/4/2019

Map of Hole

MULT 132602

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

9/4/2019

WELL I.D. LABEL# L 131771

START CARD # 1044571

(1) LAND OWNER

Owner Well I.D. MW-5

First Name 306-19-1134 Last Name POINT SOURCE SOLUTIO

Company ALCOA PARTNERS LLC

Address 2222 NE OREGON ST #201

City PORTLAND State OR Zip 97232

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

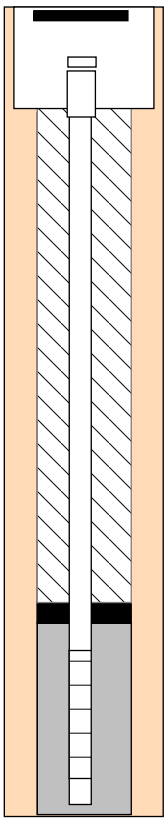
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☒ Other DIRECT PUSH

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 35.00 ft. Special Standard ☐



MONUMENT/VAULT Below Ground
From 0 To 1

BORE HOLE
Diameter 2.5 From 0 To 35

CASING
Dia. 0.75 From ☐ 0 To 25
Gauge SCH40 Wld Thrd
Material ◯ Steel ◉ Plastic ☐ ☒

LINER
Dia. From ☐ To
Gauge Wld Thrd
Material ◯ Steel ◯ Plastic ☐ ☐

SEAL
From 0 To 2
Material Concrete
Amount 0.25 Sacks Grout weight

SCREEN
Casing/Liner Casing Material PVC pre pack
Diameter 0.75 From 25 To 35
Slot Size 0.001

FILTER
From 25 To 35 Material PRE PACK Size of pack 10/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature 56 °F Lab analysis ☐ Yes By

Supervising Geologist/Engineer

Water quality concerns? ☐ Yes (describe below) TDS amount 100 ppm

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County MULTNOMAH Twp 1.00 S N/S Range 1.00 E E/W WM

Sec 2 SW 1/4 of the NW 1/4 Tax Lot 1300

Tax Map Number Lot

Lat ° ' " or DMS or DD

Long ° ' " or DMS or DD

◯ Street address of well ◉ Nearest address

1006 SE GRAND AVE, PORTLAND, OR 97201

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			☐	
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☐

WATER BEARING ZONES Depth water was first found 29.00

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
8/29/2019	29	35			☐	29
					☐	
					☐	
					☐	
					☐	

(8) WELL LOG

Ground Elevation

Material	From	To
CONCRETE	0	2
BENTONITE CHIPS	2	25
10/20 SILCA SAND	25	35

Date Started 8/29/2019 Completed 8/29/2019

(unbonded) Monitor Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 10586 Date 9/4/2019

Password : (if filing electronically)

Signed TYLER DAY (E-filed)

(bonded) Monitor Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief.

License Number 10443 Date 9/4/2019

Password : (if filing electronically)

Signed RYAN GALBRETH (E-filed)

Contact Info (optional)

ORIGINAL - WATER RESOURCES DEPARTMENT

THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version:

(4) CONSTRUCTION

BORE HOLE

Dia	From	To

FILTER PACK

From	To	Material	Size

SEAL

Material	From	To	Amt	sacks/ lbs	grout weight
Bentonite Chips	2	23	0.75	S	

CASING/LINER

Casing	Liner	Dia	+	From	To	Gauge	Stl	Plstc	Wld	Thrd

SCREENS

Perf/ Screen	Casing/ Liner	Screen Dia	From	To	Scrn size/ slot width	Slot length	# of slots	Tele/ pipe size

(5) WELL TESTS

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Water Quality Concerns

From	To	Description	Amount	Units

(7) STATIC WATER LEVEL

Water Bearing Zones

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)

(8) WELL LOG

Material	From	To

MONITORING WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

MULT 132602

9/4/2019

Map of Hole

MULT 135089

STATE OF OREGON
MONITORING WELL REPORT
(as required by ORS 537.765 & OAR 690-240-0395)

8/4/2020

WELL I.D. LABEL# L 131776

START CARD # 1048323

(1) LAND OWNER

Owner Well I.D. MW-2

First Name _____ Last Name _____

Company 1024 SE GRAND AVENUE LLC

Address PO BOX 711

City DALLAS State TX Zip 75221

(2) TYPE OF WORK

☒ New ☐ Deepening ☐ Conversion ☐ Alteration (repair/recondition) ☐ Abandonment

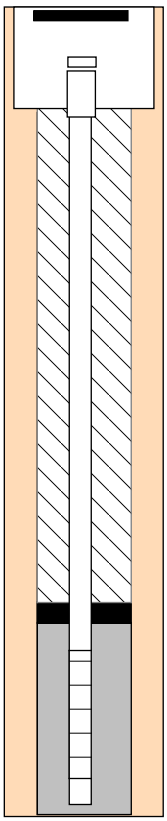
(3) DRILL METHOD

☐ Rotary Air ☐ Rotary Mud ☐ Cable ☐ Hollow Stem Auger ☐ Cable Mud ☐ Reverse Rotary ☒ Other PUSH PROBE

(4) CONSTRUCTION

Piezometer Well ☐

Depth of Completed Well 33.00 ft. Special Standard ☐



MONUMENT/VAULT Below Ground
From 0 To 1

BORE HOLE
Diameter 2.5 From 0 To 33

CASING
Dia. 0.75 From ☐ 0.5 To 23
Gauge SCH 40 Wld Thrd
Material ◯ Steel ◉ Plastic ☐ ☒

LINER
Dia. _____ From ☐ _____ To _____
Gauge _____ Wld Thrd
Material ◯ Steel ◯ Plastic ☐ ☐

SEAL
From 1 To 22
Material Bentonite Chips
Amount 0.5 Sacks Grout weight _____

SCREEN
Casing/Liner Casing Material PVC PRE PAK
Diameter 0.75 From 23 To 33
Slot Size 0.010

FILTER
From 22 To 33 Material SILICA SAND Size of pack 12/20

(5) WELL TESTS

◯ Pump ◯ Bailer ◯ Air ◯ Flowing Artesian

Yield gal/min	Drawdown	Drill stem/Pump depth	Duration (hr)

Temperature _____ °F Lab analysis ☐ Yes By _____

Supervising Geologist/Engineer _____

Water quality concerns? ☐ Yes (describe below) TDS amount _____

From	To	Description	Amount	Units

(6) LOCATION OF WELL (legal description)

County MULTNOMAH Twp 1.00 S N/S Range 1.00 E E/W WM
Sec 3 SE 1/4 of the NE 1/4 Tax Lot 1200
Tax Map Number _____ Lot _____
Lat ° ' " or 45.51519172 DMS or DD
Long ° ' " or -122.66057591 DMS or DD
◉ Street address of well ◯ Nearest address
1024 SE GRAND AVENUE
PORTLAND, OR, 97314

(7) STATIC WATER LEVEL

	Date	SWL(psi)	+	SWL(ft)
Existing Well / Predeepening			☐	
Completed Well			☐	

Flowing Artesian? ☐ Dry Hole? ☒

WATER BEARING ZONES Depth water was first found _____

SWL Date	From	To	Est Flow	SWL(psi)	+	SWL(ft)
					☐	
					☐	
					☐	
					☐	
					☐	

(8) WELL LOG

Ground Elevation _____

Material	From	To
ASPHALT	0	0.6
GRAVEL WITH SILTS	0.6	33

Date Started 7/29/2020 Completed 7/29/2020

(unbonded) Monitor Well Constructor Certification

I certify that the work I performed on the construction, deepening, alteration, or abandonment of this well is in compliance with Oregon monitoring well construction standards. Materials used and information reported above are true to the best of my knowledge and belief.

License Number 10676 Date 8/4/2020
Password : (if filing electronically) _____
Signed JESSE BLAKENEY (E-filed)

(bonded) Monitor Well Constructor Certification

I accept responsibility for the construction, deepening, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon monitoring well construction standards. This report is true to the best of my knowledge and belief.

License Number 10443 Date 8/4/2020
Password : (if filing electronically) _____
Signed RYAN GALBRETH (E-filed)
Contact Info (optional) _____

ORIGINAL - WATER RESOURCES DEPARTMENT
THIS REPORT MUST BE SUBMITTED TO THE WATER RESOURCES DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK

Form Version:

MONITORING WELL REPORT - Map with location identified must be attached and shall include an approximate scale and north arrow

MULT 135089

8/4/2020

Map of Hole

STATE OF OREGON
WELL LOCATION MAP

This map is supplemental to the WATER SUPPLY WELL REPORT

Oregon Water Resources Department
725 Summer St NE, Salem OR 97301
(503)986-0900

LOCATION OF WELL

Latitude: 45.51519172 Datum: WGS84
Longitude: -122.66057591
Township/Range/Section/Quarter-Quarter Section:
WM1.00S1.00E3SENE
Address of Well:
1024 SE GRAND AVENUE
PORTLAND, OR, 97314

Well Label: 131776

Printed: August 4, 2020

DISCLAIMER: This map is intended to represent the approximate location the well. It is not intended to be construed as survey accurate in any manner.

Provided by well constructor

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX E
LABORATORY ANALYTICAL REPORTS

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Chemwatch LLC

ADDRESS: 10445 SW Canyon Rd, Ste 101 Beaverton, OR

PHONE: 503.916.9254 FAX: 503.352.0920

CLIENT PROJECT #: CW121203.1 PROJECT MANAGER: G. Cobb

DATE: 12/05/12 PAGE 1 OF 1

PROJECT NAME: Arcola Blvd

LOCATION: 10006 SE Grand, PDX

COLLECTOR: G. Cobb DATE OF COLLECTION 12/5

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite	NOTES	Total Number of Containers	Laboratory Note Number
1. SB2-S1	8	847	S	4oz	X				X					X									1	
2. SB2-S2	17	931	S	4oz	X				X					X									1	
3. SB1-S1	8	1022	S	4oz	X				X					X									1	
4. SB1-S2	17	1032	S	4oz	X				X					X									1	
5. SB3-S1	8	1043	S	4oz	X				X					X									1	
6. SB3-S2	15'	1114	S	4oz	X				X					X									1	
7. SB4-S1	8'	1131	S	4oz	X				X					X									1	
8. SB4-S2	14'	1135	S	4oz	X				X					X									1	
9. SB5-S1	8'	1235	S	4oz	X				X					X									1	
10. SB5-S2	14	1240	S	4oz	X				X					X									1	
11. SB6-S1	8'	102	S	4oz	X				X					X									1	
12. SB6-S2	15'	112	S	4oz	X				X					X									1	
13.																								
14.																								
15.																								
16.																								
17.																								
18.																								

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	12/5/12 1330	[signature] SDCC	1339 12
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR (5 DAY)

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil
by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	12/7/2012	12/7/2012	108	nd	nd
LCS	12/7/2012	12/7/2012	115	126%	---
SB2-S1	12/7/2012	12/7/2012	int	**7100**	nd
SB2-S2	12/7/2012	12/7/2012	113	nd	nd
SB1-S1	12/7/2012	12/7/2012	92	nd	nd
SB1-S2	12/7/2012	12/7/2012	105	nd	nd
SB3-S1	12/7/2012	12/7/2012	118	nd	nd
SB3-S2	12/7/2012	12/7/2012	111	nd	nd
SB4-S1	12/7/2012	12/7/2012	115	nd	nd
SB4-S2	12/7/2012	12/7/2012	111	nd	nd
SB5-S1	12/7/2012	12/8/2012	105	nd	nd
SB5-S2	12/7/2012	12/8/2012	110	nd	nd
SB5-S2 Duplicate	12/7/2012	12/8/2012	106	nd	nd
SB6-S1	12/8/2012	12/8/2012	80	nd	nd
SB6-S2	12/8/2012	12/8/2012	104	nd	nd
SB6-S2 Duplicate	12/8/2012	12/8/2012	104	nd	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	MTH BLK	LCS	LCSD	SB2-S1	SB2-S2	SB1-S1	SB1-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/11/12	12/12/12	12/12/12	12/11/12	12/11/12	12/11/12	12/12/12
Dichlorodifluoromethane	0.05	nd			nd	nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd	nd
Vinyl chloride	0.05	nd			nd	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd	nd
Acetone	0.25	nd			nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	98%	116%	**0.05**	nd	nd	nd
Methylene chloride	0.02	nd			**2.6**	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd	nd
Chloroform	0.05	nd	91%	92%	**2.7**	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			**2.5**	nd	nd	nd
1,1-Dichloropropene	0.05	nd			**0.15**	nd	nd	nd
Carbon tetrachloride	0.05	nd	105%	113%	nd	nd	nd	nd
Benzene	0.02	nd	94%	99%	**93**	nd	**0.13**	nd
Trichloroethene (TCE)	0.02	nd	96%	101%	**1.1**	nd	nd	nd
1,2-Dichloropropane	0.05	nd			**1,000**	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
Toluene	0.05	nd	89%	97%	**40**	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	94%	100%	**8.6**	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd	nd
Chlorobenzene	0.05	nd	83%	87%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Ethylbenzene	0.05	nd	84%	84%	**18**	nd	**0.76**	nd
Xylenes	0.15	nd	83%	85%	**170**	nd	**2.1**	nd
Styrene	0.05	nd			nd	nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd	nd
Isopropylbenzene	0.05	nd			**27**	nd	**1.5**	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd	nd

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	MTH BLK	LCS	LCSD	SB2-S1	SB2-S2	SB1-S1	SB1-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/11/12	12/12/12	12/12/12	12/11/12	12/11/12	12/11/12	12/12/12
Bromobenzene	0.05	nd			nd	nd	nd	nd
n-Propylbenzene	0.05	nd			**70**	nd	**4.4**	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd			**150**	nd	**8.4**	nd
tert-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd			**310**	**0.06**	**16**	nd
sec-Butylbenzene	0.05	nd			**56**	nd	**4.0**	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
Isopropyltoluene	0.05	nd			**84**	nd	**5.5**	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd	nd
n-Butylbenzene	0.05	nd			nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd			nd	nd	nd	nd
Naphthalene	0.10	nd			**12**	nd	**0.14**	nd
Hexachloro-1,3-butadiene	0.10	nd			nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd			nd	nd	nd	nd
Surrogate recoveries								
Dibromofluoromethane		101%	111%	111%	106%	105%	110%	111%
Toluene-d8		110%	99%	100%	107%	113%	122%	106%
4-Bromofluorobenzene		123%	109%	106%	118%	116%	122%	118%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

ESN Pacific
PROJECT
Client Project #D1212060626
Hawaii

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	SB3-S1	SB3-S2	SB4-S1	SB4-S2	SB5-S1	SB5-S2	SB6-S1	SB6-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Vinyl chloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Acetone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	0.02	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Hexanone	0.25	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Xylenes	0.15	nd	nd	nd	nd	nd	nd	nd	nd
Styrene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd

ESN NORTHWEST CHEMISTRY LABORATORY

ESN Pacific
PROJECT
Client Project #D1212060626
Hawaii

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by Method 8260/5035

Analytical Results

	Reporting	SB3-S1	SB3-S2	SB4-S1	SB4-S2	SB5-S1	SB5-S2	SB6-S1	SB6-S2
Date extracted	Limits	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12	12/07/12
Date analyzed	(mg/Kg)	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12
Bromobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
n-Propylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Isopropyltoluene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
n-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	0.10	nd	nd	nd	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries									
Dibromofluoromethane		109%	109%	108%	109%	107%	111%	107%	113%
Toluene-d8		107%	109%	108%	106%	112%	112%	109%	110%
4-Bromofluorobenzene		113%	119%	122%	115%	117%	119%	116%	114%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Total Metals in Soil by EPA-6020 Series

Sample Number	Date Analyzed	Lead (Pb) (mg/kg)	Cadmium (Cd) (mg/kg)	Chromium (Cr) (mg/kg)	Arsenic (As) (mg/kg)	Silver (Ag) (mg/kg)	Barium (Ba) (mg/kg)	Selenium (Se) (mg/kg)	Mercury (Hg) (mg/kg)
Method Blank	12/10/2012	nd	nd	nd	nd	nd	nd	nd	nd
SB2-S1	12/10/2012	**11**	nd	**14**	nd	nd	**120**	nd	nd
SB2-S2	12/10/2012	nd	nd	**5.3**	nd	nd	**110**	nd	nd
SB1-S1	12/10/2012	**9.4**	nd	**13**	nd	nd	**152**	nd	nd
SB1-2	12/10/2012	nd	nd	**6.4**	nd	nd	**75**	nd	nd
SB3-S1	12/10/2012	**8.8**	nd	**8.9**	nd	nd	**78**	nd	nd
SB3-S1 Duplicate	12/10/2012	**10**	nd	**9.7**	nd	nd	**110**	nd	nd
SB3-S2	12/10/2012	**5.3**	nd	**5.8**	nd	nd	**120**	nd	nd
SB4-S1	12/10/2012	**12**	nd	**8.5**	nd	nd	**120**	nd	nd
SB4-S2	12/10/2012	**8.2**	nd	**9.6**	nd	nd	**110**	nd	nd
SB5-S1	12/10/2012	**11**	nd	**7.8**	nd	nd	**110**	nd	nd
SB5-S2	12/10/2012	**6.9**	nd	**6.8**	nd	nd	**94**	nd	nd
SB6-S1	12/10/2012	**7.6**	nd	**8.1**	nd	nd	**98**	nd	nd
SB6-S1 Duplicate	12/10/2012	**8.5**	nd	**9.5**	nd	nd	**101**	nd	nd
SB6-S2	12/10/2012	**5.1**	nd	nd	nd	nd	**92**	nd	nd
Reporting Limits		5.0	1.0	5.0	5.0	20	50	20	0.5

"nd" Indicates not detected at listed detection limits.

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ARCOA BLDG PROJECT
Client Project #CW121203.1
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

QA/QC Data - Total Metals EPA-6020

Sample Number: SB3-S1

	Matrix Spike			Matrix Spike Duplicate			RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead	71.4	79.1	111	73.5	85.0	116	4.3
Cadmium	71.4	78.7	110	73.5	83.2	113	2.7
Chromium	71.4	76.0	106	73.5	80.5	109	2.9
Arsenic	71.4	79.7	112	73.5	84.1	114	2.5
Silver	71.4	71.2	99.7	73.5	76.3	104	4.0
Barium	71.4	84.7	119	73.5	93.7	127M	7.2
Selenium	71.4	79.3	111	73.5	83.1	113	1.8
Mercury	7.14	8.06	113	7.35	8.59	117	3.5

	Laboratory Control Sample		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Lead	100	104	104
Cadmium	100	106	106
Chromium	100	94.8	94.8
Arsenic	100	107	107
Silver	100	98.5	98.5
Barium	100	102	102
Selenium	100	110	110
Mercury	10	10.7	107

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%
ACCEPTABLE RPD IS 35%
M - Matrix Spike recovery failed due to matrix interference.

ESN NORTHWEST, INC. Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: CHAMPION LLC

ADDRESS: 10445 SW CANYON RD, STE 101 BEAVERTON 97005

PHONE: 503.916.9254 FAX: 503.352.0920

CLIENT PROJECT #: _____ PROJECT MANAGER: G. Cobb

DATE: 2/15/2013 PAGE _____ OF _____

PROJECT NAME: ARLOA BLDG

LOCATION: 1006 SE GRAND, PORTLAND

COLLECTOR: G. COBB DATE OF COLLECTION 2/15

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HCID	TPH - DIESEL & OIL	TPH - GASOLINE	BTEX	VOC 8260CL	VOC 8260	SemiVol 8270	PAH's 8270	PCB's 8082	CL Pesticides 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	Asbestos-PLM	GRO Suite	DRO Suite	WO Suite	STODDARD	NOTES	Total Number of Containers	Laboratory Note Number
1. SB2B-S1	28'	951	S	403		X			X													X		1	
2. SB2-W1	28'	1157	W	VOA-Am		X			X													X		3	
3. SB8-S1	14'	306	S	403		X	X		X													X		1	
4. SB9-S1	2'	329	S	403					X																
5.																									
6.																									
7.																									
8.																									
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14.																									
15.																									
16.																									
17.																									
18.																									

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	2/15/13 354	[signature]	15FEB13 1600
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS

☐ ESN DISPOSAL @ $2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR (5 DAY)

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	2/20/2013	2/20/2013	98	nd	nd
LCS	2/20/2013	2/20/2013	130	116%	---
SB2B-S1	2/20/2013	2/20/2013	92	nd	nd
SB2B-S1 Duplicate	2/20/2013	2/20/2013	97	nd	nd
SB8-S1	2/20/2013	2/20/2013	66	nd	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	2/18/2013	2/18/2013	75	nd	nd
LCS	2/18/2013	2/18/2013	118	95%	---
SB2-W1	2/18/2013	2/18/2013	72	nd	nd
Reporting Limits				250	500

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	2/18/2013	2/20/2013	105	nd
LCS	2/18/2013	2/20/2013	111	103%
SB8-S1	2/18/2013	2/20/2013	113	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Soil
by EPA Method 8260C/5035A

Analytical Results

Matrix	Reporting	MTH BLK Soil	LCS Soil	LCSD Soil	SB2B-S1 Soil	SB8-S1 Soil	SB9-S1 Soil
Date extracted	Limits	02/18/13	02/18/13	02/18/13	02/18/13	02/18/13	02/18/13
Date analyzed	(mg/kg)	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13
Dichlorodifluoromethane	0.05	nd			nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd
Vinyl chloride	0.05	nd	159%	143%	nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd
1,1-Dichloroethene	0.05	nd	139%	139%	nd	nd	nd
Methylene chloride	0.02	nd			nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd
Chloroform	0.05	nd	127%	122%	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd
Trichloroethene (TCE)	0.02	nd	132%	124%	nd	nd	nd
1,2-Dichloropropane	0.05	nd	115%	109%	nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	110%	112%	**0.03**	nd	nd
Chlorobenzene	0.05	nd			nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd
2-Chlorotoluene	0.05	nd			nd	nd	nd
4-Chlorotoluene	0.05	nd			nd	nd	nd
1,3-Dichlorobenzene	0.05	nd			nd	nd	nd
1,4-Dichlorobenzene	0.05	nd			nd	nd	nd
1,2-Dichlorobenzene	0.05	nd			nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd			nd	nd	nd
1,2,4-Trichlorobenzene	0.10	nd			nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd			nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd			nd	nd	nd
Surrogate recoveries							
Dibromofluoromethane		98%	107%	107%	102%	107%	110%
Toluene-d8		106%	96%	98%	103%	107%	107%
4-Bromofluorobenzene		115%	100%	99%	114%	112%	112%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Chlorinated Volatile Organic Compounds in Water by Method 8260

Analytical Results

	RL	MB	LCS	LCSD	SB2-W1	TRIP BLANK
Date analyzed	(ug/L)	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13
Dichlorodifluoromethane	1.0	nd			nd	nd
Chloromethane	1.0	nd			nd	nd
Vinyl chloride	0.2	nd	80%	75%	nd	nd
Chloroethane	1.0	nd			nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd
1,1-Dichloroethene	1.0	nd	115%	101%	nd	nd
Methylene chloride	1.0	nd			nd	nd
trans-1,2-Dichloroethene	1.0	nd			nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd
cis-1,2-Dichloroethene	1.0	nd			**1.6**	nd
2,2-Dichloropropane	1.0	nd			nd	nd
Chloroform	1.0	nd	130%	115%	**35**	nd
Bromochloromethane	1.0	nd			nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd
Carbon tetrachloride	1.0	nd			nd	nd
Trichloroethene (TCE)	1.0	nd	133%	117%	**5.1**	nd
1,2-Dichloropropane	1.0	nd	125%	119%	**101**	nd
Bromodichloromethane	1.0	nd			nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd
Dibromochloromethane	1.0	nd			nd	nd
Tetrachloroethene (PCE)	1.0	nd	122%	109%	**53**	nd
Chlorobenzene	1.0	nd	126%	112%	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd
2-Chlorotoluene	1.0	nd			nd	nd
4-Chlorotoluene	1.0	nd			nd	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd
Hexachloro-1,3-butadiene	1.0	nd			nd	nd
1,2,3-Trichlorobenzene	1.0	nd			nd	nd
Surrogate recoveries						
Dibromofluoromethane		110%	103%	104%	114%	106%
Toluene-d8		101%	98%	97%	99%	97%
4-Bromofluorobenzene		104%	103%	101%	111%	101%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Stoddard Solvent Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Stoddard Solvent Range Organics (mg/kg)
Method Blank	2/18/2013	2/20/2013	105	nd
LCS	2/18/2013	2/20/2013	111	103%
SB2B-S1	2/18/2013	2/20/2013	114	**65**
SB8-S1	2/18/2013	2/20/2013	113	**310**
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analyses of Stoddard Solvent Range Organics in Water by Method NWTPH-Gx

Sample Number	Date Analyzed	Surrogate Recovery (%)	Stoddard Solvent Range Organics (ug/L)
Method Blank	2/20/2013	106%	nd
LCS	2/20/2013	103%	89%
SB2-W1	2/20/2013	114%	**2200**
Reporting Limits			100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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WORK ORDER #: 1302334

Work Order Summary

CLIENT:	Mr. Steve League ESN Northwest 1210 Eastside St SE Suite 200 Olympia, WA 98501	**BILL TO:**	Mr. Steve League ESN Northwest 1210 Eastside St SE Suite 200 Olympia, WA 98501
PHONE:	360-459-4670	**P.O. #**	P13021508
FAX:	360-4595-3432	**PROJECT #**	ARCOA BLVD
DATE RECEIVED:	02/19/2013	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	03/04/2013		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV1-Arcoa	Modified TO-15	24.0 "Hg	15 psi
02A	SV2-Arcoa	Modified TO-15	1.0 "Hg	15 psi
03A	SV3-Arcoa	Modified TO-15	4.0 "Hg	15 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA
06AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 03/04/13

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
ESN Northwest
Workorder# 1302334

Three 1 Liter Summa Canister samples were received on February 19, 2013. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Sample SV1-Arcoa was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

Dilution was performed on all of the samples due to the presence of high level target species.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV1-Arcoa

Lab ID#: 1302334-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	50	180	110	400
2-Propanol	200	360	500	890
Hexane	50	100	180	370
Chloroform	50	50	250	240
Cyclohexane	50	300	170	1000
Benzene	50	3000	160	9500
1,2-Dichloroethane	50	70	200	280
Heptane	50	390	210	1600
Trichloroethene	50	430	270	2300
1,2-Dichloropropane	50	7500	230	35000
Toluene	50	350	190	1300
Tetrachloroethene	50	1500	340	10000
Ethyl Benzene	50	960	220	4200
m,p-Xylene	50	5200	220	22000
o-Xylene	50	3500	220	15000
Cumene	50	1200	250	6000
Propylbenzene	50	2200	250	11000
4-Ethyltoluene	50	7400	250	36000
1,3,5-Trimethylbenzene	50	5000	250	24000
1,2,4-Trimethylbenzene	50	11000	250	54000

Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	4.2	9.0	9.2	20
Acetone	42	47	99	110
Chloroform	4.2	7.4	20	36
Cyclohexane	4.2	7.2	14	25
Carbon Tetrachloride	4.2	5.5	26	34
Benzene	4.2	21	13	66
Heptane	4.2	30	17	120
Trichloroethene	4.2	11	22	62

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

Toluene	4.2	9.0	16	34
Tetrachloroethene	4.2	320	28	2200
Ethyl Benzene	4.2	5.6	18	24
m,p-Xylene	4.2	37	18	160
o-Xylene	4.2	32	18	140
Cumene	4.2	20	20	98
Propylbenzene	4.2	99	20	480
4-Ethyltoluene	4.2	230	20	1200
1,3,5-Trimethylbenzene	4.2	230	20	1100
1,2,4-Trimethylbenzene	4.2	560	20	2800

Client Sample ID: SV3-Arcoa

Lab ID#: 1302334-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	120	130	280	310
Hexane	12	20	41	71
cis-1,2-Dichloroethene	12	21	46	84
Chloroform	12	3900	57	19000
Carbon Tetrachloride	12	280	73	1800
Trichloroethene	12	12	63	66
Tetrachloroethene	12	59	79	400
1,2,4-Trimethylbenzene	12	16	57	78

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Client Sample ID: SV1-Arcoa

Lab ID#: 1302334-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022606**	**Date of Collection:**	**2/15/13 12:40:00 PM**
Dil. Factor:	**101**	**Date of Analysis:**	**2/26/13 11:59 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	50	Not Detected	250	Not Detected
Freon 114	50	Not Detected	350	Not Detected
Chloromethane	500	Not Detected	1000	Not Detected
Vinyl Chloride	50	Not Detected	130	Not Detected
1,3-Butadiene	50	180	110	400
Bromomethane	500	Not Detected	2000	Not Detected
Chloroethane	200	Not Detected	530	Not Detected
Freon 11	50	Not Detected	280	Not Detected
Ethanol	200	Not Detected	380	Not Detected
Freon 113	50	Not Detected	390	Not Detected
1,1-Dichloroethene	50	Not Detected	200	Not Detected
Acetone	500	Not Detected	1200	Not Detected
2-Propanol	200	360	500	890
Carbon Disulfide	200	Not Detected	630	Not Detected
3-Chloropropene	200	Not Detected	630	Not Detected
Methylene Chloride	500	Not Detected	1800	Not Detected
Methyl tert-butyl ether	50	Not Detected	180	Not Detected
trans-1,2-Dichloroethene	50	Not Detected	200	Not Detected
Hexane	50	100	180	370
1,1-Dichloroethane	50	Not Detected	200	Not Detected
2-Butanone (Methyl Ethyl Ketone)	200	Not Detected	600	Not Detected
cis-1,2-Dichloroethene	50	Not Detected	200	Not Detected
Tetrahydrofuran	50	Not Detected	150	Not Detected
Chloroform	50	50	250	240
1,1,1-Trichloroethane	50	Not Detected	280	Not Detected
Cyclohexane	50	300	170	1000
Carbon Tetrachloride	50	Not Detected	320	Not Detected
2,2,4-Trimethylpentane	50	Not Detected	240	Not Detected
Benzene	50	3000	160	9500
1,2-Dichloroethane	50	70	200	280
Heptane	50	390	210	1600
Trichloroethene	50	430	270	2300
1,2-Dichloropropane	50	7500	230	35000
1,4-Dioxane	200	Not Detected	730	Not Detected
Bromodichloromethane	50	Not Detected	340	Not Detected
cis-1,3-Dichloropropene	50	Not Detected	230	Not Detected
4-Methyl-2-pentanone	50	Not Detected	210	Not Detected
Toluene	50	350	190	1300
trans-1,3-Dichloropropene	50	Not Detected	230	Not Detected
1,1,2-Trichloroethane	50	Not Detected	280	Not Detected
Tetrachloroethene	50	1500	340	10000
2-Hexanone	200	Not Detected	830	Not Detected

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Client Sample ID: SV1-Arcoa

Lab ID#: 1302334-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022606**	**Date of Collection: 2/15/13 12:40:00 PM**	
Dil. Factor:	**101**	**Date of Analysis: 2/26/13 11:59 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	50	Not Detected	430	Not Detected
1,2-Dibromoethane (EDB)	50	Not Detected	390	Not Detected
Chlorobenzene	50	Not Detected	230	Not Detected
Ethyl Benzene	50	960	220	4200
m,p-Xylene	50	5200	220	22000
o-Xylene	50	3500	220	15000
Styrene	50	Not Detected	220	Not Detected
Bromoform	50	Not Detected	520	Not Detected
Cumene	50	1200	250	6000
1,1,2,2-Tetrachloroethane	50	Not Detected	350	Not Detected
Propylbenzene	50	2200	250	11000
4-Ethyltoluene	50	7400	250	36000
1,3,5-Trimethylbenzene	50	5000	250	24000
1,2,4-Trimethylbenzene	50	11000	250	54000
1,3-Dichlorobenzene	50	Not Detected	300	Not Detected
1,4-Dichlorobenzene	50	Not Detected	300	Not Detected
alpha-Chlorotoluene	50	Not Detected	260	Not Detected
1,2-Dichlorobenzene	50	Not Detected	300	Not Detected
1,2,4-Trichlorobenzene	200	Not Detected	1500	Not Detected
Hexachlorobutadiene	200	Not Detected	2200	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	89	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022607**	**Date of Collection: 2/15/13 1:36:00 PM**	
Dil. Factor:	**8.36**	**Date of Analysis: 2/26/13 12:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	Not Detected	21	Not Detected
Freon 114	4.2	Not Detected	29	Not Detected
Chloromethane	42	Not Detected	86	Not Detected
Vinyl Chloride	4.2	Not Detected	11	Not Detected
1,3-Butadiene	4.2	9.0	9.2	20
Bromomethane	42	Not Detected	160	Not Detected
Chloroethane	17	Not Detected	44	Not Detected
Freon 11	4.2	Not Detected	23	Not Detected
Ethanol	17	Not Detected	32	Not Detected
Freon 113	4.2	Not Detected	32	Not Detected
1,1-Dichloroethene	4.2	Not Detected	16	Not Detected
Acetone	42	47	99	110
2-Propanol	17	Not Detected	41	Not Detected
Carbon Disulfide	17	Not Detected	52	Not Detected
3-Chloropropene	17	Not Detected	52	Not Detected
Methylene Chloride	42	Not Detected	140	Not Detected
Methyl tert-butyl ether	4.2	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	4.2	Not Detected	16	Not Detected
Hexane	4.2	Not Detected	15	Not Detected
1,1-Dichloroethane	4.2	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	17	Not Detected	49	Not Detected
cis-1,2-Dichloroethene	4.2	Not Detected	16	Not Detected
Tetrahydrofuran	4.2	Not Detected	12	Not Detected
Chloroform	4.2	7.4	20	36
1,1,1-Trichloroethane	4.2	Not Detected	23	Not Detected
Cyclohexane	4.2	7.2	14	25
Carbon Tetrachloride	4.2	5.5	26	34
2,2,4-Trimethylpentane	4.2	Not Detected	20	Not Detected
Benzene	4.2	21	13	66
1,2-Dichloroethane	4.2	Not Detected	17	Not Detected
Heptane	4.2	30	17	120
Trichloroethene	4.2	11	22	62
1,2-Dichloropropane	4.2	Not Detected	19	Not Detected
1,4-Dioxane	17	Not Detected	60	Not Detected
Bromodichloromethane	4.2	Not Detected	28	Not Detected
cis-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.2	Not Detected	17	Not Detected
Toluene	4.2	9.0	16	34
trans-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.2	Not Detected	23	Not Detected
Tetrachloroethene	4.2	320	28	2200
2-Hexanone	17	Not Detected	68	Not Detected

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Client Sample ID: SV2-Arcoa

Lab ID#: 1302334-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022607**	**Date of Collection: 2/15/13 1:36:00 PM**	
Dil. Factor:	**8.36**	**Date of Analysis: 2/26/13 12:31 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	4.2	Not Detected	36	Not Detected
1,2-Dibromoethane (EDB)	4.2	Not Detected	32	Not Detected
Chlorobenzene	4.2	Not Detected	19	Not Detected
Ethyl Benzene	4.2	5.6	18	24
m,p-Xylene	4.2	37	18	160
o-Xylene	4.2	32	18	140
Styrene	4.2	Not Detected	18	Not Detected
Bromoform	4.2	Not Detected	43	Not Detected
Cumene	4.2	20	20	98
1,1,2,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
Propylbenzene	4.2	99	20	480
4-Ethyltoluene	4.2	230	20	1200
1,3,5-Trimethylbenzene	4.2	230	20	1100
1,2,4-Trimethylbenzene	4.2	560	20	2800
1,3-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,4-Dichlorobenzene	4.2	Not Detected	25	Not Detected
alpha-Chlorotoluene	4.2	Not Detected	22	Not Detected
1,2-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	120	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	116	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: SV3-Arcoa

Lab ID#: 1302334-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022608**	**Date of Collection: 2/15/13 2:48:00 PM**	
Dil. Factor:	**23.3**	**Date of Analysis: 2/26/13 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	58	Not Detected
Freon 114	12	Not Detected	81	Not Detected
Chloromethane	120	Not Detected	240	Not Detected
Vinyl Chloride	12	Not Detected	30	Not Detected
1,3-Butadiene	12	Not Detected	26	Not Detected
Bromomethane	120	Not Detected	450	Not Detected
Chloroethane	47	Not Detected	120	Not Detected
Freon 11	12	Not Detected	65	Not Detected
Ethanol	47	Not Detected	88	Not Detected
Freon 113	12	Not Detected	89	Not Detected
1,1-Dichloroethene	12	Not Detected	46	Not Detected
Acetone	120	130	280	310
2-Propanol	47	Not Detected	110	Not Detected
Carbon Disulfide	47	Not Detected	140	Not Detected
3-Chloropropene	47	Not Detected	140	Not Detected
Methylene Chloride	120	Not Detected	400	Not Detected
Methyl tert-butyl ether	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	12	Not Detected	46	Not Detected
Hexane	12	20	41	71
1,1-Dichloroethane	12	Not Detected	47	Not Detected
2-Butanone (Methyl Ethyl Ketone)	47	Not Detected	140	Not Detected
cis-1,2-Dichloroethene	12	21	46	84
Tetrahydrofuran	12	Not Detected	34	Not Detected
Chloroform	12	3900	57	19000
1,1,1-Trichloroethane	12	Not Detected	64	Not Detected
Cyclohexane	12	Not Detected	40	Not Detected
Carbon Tetrachloride	12	280	73	1800
2,2,4-Trimethylpentane	12	Not Detected	54	Not Detected
Benzene	12	Not Detected	37	Not Detected
1,2-Dichloroethane	12	Not Detected	47	Not Detected
Heptane	12	Not Detected	48	Not Detected
Trichloroethene	12	12	63	66
1,2-Dichloropropane	12	Not Detected	54	Not Detected
1,4-Dioxane	47	Not Detected	170	Not Detected
Bromodichloromethane	12	Not Detected	78	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	53	Not Detected
4-Methyl-2-pentanone	12	Not Detected	48	Not Detected
Toluene	12	Not Detected	44	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	53	Not Detected
1,1,2-Trichloroethane	12	Not Detected	64	Not Detected
Tetrachloroethene	12	59	79	400
2-Hexanone	47	Not Detected	190	Not Detected

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Client Sample ID: SV3-Arcoa

Lab ID#: 1302334-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022608**	**Date of Collection: 2/15/13 2:48:00 PM**	
Dil. Factor:	**23.3**	**Date of Analysis: 2/26/13 01:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	12	Not Detected	99	Not Detected
1,2-Dibromoethane (EDB)	12	Not Detected	90	Not Detected
Chlorobenzene	12	Not Detected	54	Not Detected
Ethyl Benzene	12	Not Detected	50	Not Detected
m,p-Xylene	12	Not Detected	50	Not Detected
o-Xylene	12	Not Detected	50	Not Detected
Styrene	12	Not Detected	50	Not Detected
Bromoform	12	Not Detected	120	Not Detected
Cumene	12	Not Detected	57	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	80	Not Detected
Propylbenzene	12	Not Detected	57	Not Detected
4-Ethyltoluene	12	Not Detected	57	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	57	Not Detected
1,2,4-Trimethylbenzene	12	16	57	78
1,3-Dichlorobenzene	12	Not Detected	70	Not Detected
1,4-Dichlorobenzene	12	Not Detected	70	Not Detected
alpha-Chlorotoluene	12	Not Detected	60	Not Detected
1,2-Dichlorobenzene	12	Not Detected	70	Not Detected
1,2,4-Trichlorobenzene	47	Not Detected	340	Not Detected
Hexachlorobutadiene	47	Not Detected	500	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1302334-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 11:22 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1302334-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 11:22 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	85	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	87	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1302334-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 09:58 AM**	

Compound	%Recovery
Freon 12	99
Freon 114	96
Chloromethane	90
Vinyl Chloride	101
1,3-Butadiene	92
Bromomethane	95
Chloroethane	91
Freon 11	95
Ethanol	88
Freon 113	95
1,1-Dichloroethene	96
Acetone	91
2-Propanol	90
Carbon Disulfide	90
3-Chloropropene	93
Methylene Chloride	90
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	98
Hexane	96
1,1-Dichloroethane	91
2-Butanone (Methyl Ethyl Ketone)	99
cis-1,2-Dichloroethene	109
Tetrahydrofuran	98
Chloroform	95
1,1,1-Trichloroethane	98
Cyclohexane	105
Carbon Tetrachloride	97
2,2,4-Trimethylpentane	100
Benzene	101
1,2-Dichloroethane	100
Heptane	111
Trichloroethene	93
1,2-Dichloropropane	107
1,4-Dioxane	128
Bromodichloromethane	103
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	115
Toluene	101
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	90
Tetrachloroethene	89
2-Hexanone	92

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1302334-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 09:58 AM**	

Compound	%Recovery
Dibromochloromethane	95
1,2-Dibromoethane (EDB)	90
Chlorobenzene	94
Ethyl Benzene	107
m,p-Xylene	97
o-Xylene	100
Styrene	105
Bromoform	95
Cumene	102
1,1,2,2-Tetrachloroethane	117
Propylbenzene	109
4-Ethyltoluene	116
1,3,5-Trimethylbenzene	121
1,2,4-Trimethylbenzene	114
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1302334-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:28 AM**	

Compound	%Recovery
Freon 12	102
Freon 114	101
Chloromethane	107
Vinyl Chloride	108
1,3-Butadiene	98
Bromomethane	99
Chloroethane	96
Freon 11	98
Ethanol	68 Q
Freon 113	98
1,1-Dichloroethene	106
Acetone	100
2-Propanol	92
Carbon Disulfide	117
3-Chloropropene	107
Methylene Chloride	93
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	114
Hexane	114
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	100
Tetrahydrofuran	95
Chloroform	97
1,1,1-Trichloroethane	100
Cyclohexane	110
Carbon Tetrachloride	108
2,2,4-Trimethylpentane	102
Benzene	106
1,2-Dichloroethane	97
Heptane	106
Trichloroethene	84
1,2-Dichloropropane	99
1,4-Dioxane	117
Bromodichloromethane	106
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	104
Toluene	98
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	82
Tetrachloroethene	82
2-Hexanone	86

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Client Sample ID: LCS

Lab ID#: 1302334-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:28 AM**	

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	98
Chlorobenzene	93
Ethyl Benzene	100
m,p-Xylene	94
o-Xylene	92
Styrene	95
Bromoform	87
Cumene	94
1,1,2,2-Tetrachloroethane	93
Propylbenzene	89
4-Ethyltoluene	88
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	88
1,4-Dichlorobenzene	87
alpha-Chlorotoluene	89
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	95
Hexachlorobutadiene	91

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	88	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302334-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:47 AM**	

Compound	%Recovery
Freon 12	94
Freon 114	95
Chloromethane	95
Vinyl Chloride	98
1,3-Butadiene	91
Bromomethane	90
Chloroethane	90
Freon 11	88
Ethanol	62 Q
Freon 113	91
1,1-Dichloroethene	96
Acetone	95
2-Propanol	86
Carbon Disulfide	106
3-Chloropropene	108
Methylene Chloride	86
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	104
Hexane	92
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	98
Tetrahydrofuran	101
Chloroform	98
1,1,1-Trichloroethane	93
Cyclohexane	102
Carbon Tetrachloride	92
2,2,4-Trimethylpentane	96
Benzene	100
1,2-Dichloroethane	95
Heptane	108
Trichloroethene	97
1,2-Dichloropropane	110
1,4-Dioxane	103
Bromodichloromethane	97
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	106
Toluene	99
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	102
Tetrachloroethene	98
2-Hexanone	92

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1302334-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p022604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/26/13 10:47 AM**	

Compound	%Recovery
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	101
Chlorobenzene	96
Ethyl Benzene	105
m,p-Xylene	111
o-Xylene	112
Styrene	113
Bromoform	103
Cumene	114
1,1,2,2-Tetrachloroethane	112
Propylbenzene	108
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	113
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	110

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	103	70-130

12/30/16

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

Re: OR161202-3B

Dear Point Source Solutions

Enclosed are the results of analysis for samples received by the laboratory on 12/29/2016
The results related only to the samples included in this report.
The project was assigned a report number of 87018

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

CY Chan
QA Officer

NW-TPHDx LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

SITE NAME:	Caldwell Properties	**C.O.C. NUMBER:**	87018
SITE LOCATION:	1025 SE 6th Ave	**REPORT DATE:**	12/30/16
PROJECT NUMBER:	OR161202-3B		

Analytical Method: NWTPH-Dx **Preparation Method: EPA3545A**

Analytes: Total Diesel and Heavy Oil range petroleum in Soil. Calculated on a dry-weight basis.

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Prepared Batch	Sampling Date
SB1-S1-10	L3509	**ND**	**ND**	**109%**	**78FL1612291**	**D161229-1**	**12/29/2016**
SB2-S1-10	L3510	**ND**	**ND**	**98%**	**78FL1612291**	**D161229-1**	**12/29/2016**
SB3-S1-10	L3511	**ND**	**ND**	**98%**	**78FL1612291**	**D161229-1**	**12/29/2016**
SB5-S2-10.5	L3513	**ND**	**ND**	**87%**	**78FL1612291**	**D161229-1**	**12/29/2016**
SB5-S3-14	L3514	**ND**	**ND**	**114%**	**78FL1612291**	**D161229-1**	**12/29/2016**
Reporting Limit:	--	25	100				
Surrogate Limit:				50%-150%			

Surrogate is 1-ChloroOctadecane

ND = Not Detected at or below the Reporting Limit

Results relate only to samples

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Chemist Initials: CY Chan **Reviewed By:**

PERCENT MOISTURE REPORT

REPORT NUMBER: 87018
REPORT DATE: 12/30/16

ASTM D2974-07a

Analytes: Percent Moisture in Sample

LAB ID	Moisture(%)	Date Analyzed
L3509	28.6	12/29/16
L3510	26.5	12/29/16
L3511	28.0	12/29/16
L3513	25.4	12/29/16
L3514	27.4	12/29/16

2415 SE 11th Ave.
Portland, OR 97214

These parameters are accredited in accordance with NELAP - OR100011

Phone (503) 231-9320
FAX (503) 231-9344

Report Narrative

Method: NWTHP-Dx **Report No.** 87018

Client: Point Source Solutions **Date:** 12/29/2016

Sample Condition

5 Sample(s) were analyzed for NWTPH-Dx. Sample(s)were received in acceptable condition

Sample Temperature

Sample(s) arrived within acceptable temperature range

Sample Hold time

Sample(s) were analyzed within hold time

Initial Calibration

All criteria were within acceptable limits

Continuing Calibration Check (CCV)

All criteria were within method limits

Method Blank

Method Blank meets method limit

Laboratory Control Sample (LCS)

All criteria were within method limits

Duplicate Sample

All criteria were within method limits

Matrix Spike

All criteria were within method limits

Matrix Spike Duplicate

No Matrix Spike Duplicate was run on this batch

Non-Conformance

No non-conformances were associated with this request except noticed below

Quality Control for NWTPH-Dx

Batch Date: 12/29/2016

Units: Soil Blank (mg/Kg) Water Blank (mg/L) CCV & LCS (ug/mL)

Blank Number	PB	Diesel Result	Oil Result	Limits Diesel	Limits Oil	Blank Control	Surr. Recovery	Surr. Limits	Surr. Control
SBK12291	D161229-1	3	0	50	100	PASS	104%	50%-150%	PASS

Diesel LCS Number	PB	Diesel in Extract	Expected Conc.	LCS Recovery (%)	LCS Control Limits	LCS Control	Surr. Recovery	Surr. Limits	Surr. Control
SLC12291	D161229-1	600.91	500.00	120%	±30%	PASS	102%	50%-150%	PASS

Oil LCS Number	PB	Oil in Extract	Expected Conc.	LCS Recovery (%)	LCS Control Limits	LCS Control	Surr. Recovery	Surr. Limits	Surr. Control
SLC12291	D161229-1	521.49	500.00	104%	±30%	PASS	102%	50%-150%	PASS

Diesel Dupl. Number	PB	Sample in Extract	Duplicate In Extract	RPD (%)	Control Limits	Duplicate Control
L3500	D161229-1	7.005659767	3.366959766	0%	±30%	PASS
L3504	D161229-1	49.11454086	44.46315347	10%	±30%	PASS

Oil Dupl. Number	PB	Sample in Extract	Duplicate in Extract	RPD (%)	Control Limits	Duplicate Control
L3500	D161229-1	0	0	0%	±30%	PASS
L3504	D161229-1	0	0	0%	±30%	PASS

Diesel MS Number	PB	Sample in Extract	Diesel MS Result	MS Recovery (%)	MS Control Limits	MS Control
L3500MS	D161229-1	7.005659767	666.9515982	108%	70%-130%	PASS

Oil MS Number	PB	Sample in Extract	Oil MS Result	MS Recovery (%)	MS Control Limits	MS Control
L3500MS	D161229-1	0	614.8544261	102%	70%-130%	PASS

NW-TPHGx LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:	Caldwell Properties	**C.O.C. NUMBER:**	87018
SITE LOCATION:	1025 SE 6th Ave	**REPORT DATE:**	1/12/2017
PROJECT NUMBER:	OR161202-3B		

Analytical Method: NW-TPHGx Preparation Method: EPA 5035
Analytes: Gasoline in Soil. Calculated on a dry-weight basis.

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recov.(%)	Analytical Batch	Preperation Batch	Sampling Date
SB5-S2-10.5	**L3513**	**12800**	**122%**	**58PI161230-1**	**G161230-1**	**12/29/2016**
SB5-S3-14	**L3514**	**ND**	**97%**	**58PI170112-1**	**G170112-1**	**12/29/2016**
Reporting Limit:	--	20				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

Results relate only to samples.
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Chemist Initials: C.Y Chan **Reviewer Initials:**

PERCENT MOISTURE REPORT

REPORT NUMBER: 87018
REPORT DATE: 12/30/2016

ASTM D2974-07a
Analytes: Percent Moisture in Sample

LAB ID	Moisture (%)	Date Analyzed
L3513	25	12/29/2016
L3514	27	12/29/2016

2415 SE 11th Ave.
Portland, OR 97214

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Phone (503) 231-9320
FAX (503) 231-9344

Wy'East

Report Narrative

Method: NWTHP-Gx **Report No.** 87018

Client: Point Source Solutions **Date:** 1/12/2017

Sample Condition
2 sample(s) were analyzed for NWTPH-Gx. Sample(s)were received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
sample(s) were analyzed within hold time

Initial Calibration

All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts

Method Blank
Method Blank meets method limt

Laboratory Control Sample (LCS)
All criteria were within method limts

Duplicate Sample
All criteria were within method limts

Matrix Spike
All MS criteria were within method limts
No MSD was run this batch

Matrix Spike Duplicate RPD
No MSD was run this batch

Non-Conformance
No non-conformances were associated with this request except noticed below
Sample jar of L3514 was opened prior to Gx analysis.

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 1/10/2017

Blank	Prep. Batch	Result(mg/Kg)	Accep. Range	Sur. % Recovery	% Accep.
GBK01101	G170110-1	0.30	<20	97%	50%-150%

Spike	Prep. Batch	Result (mg/Kg)	Expected (mg/Kg)	spike % Recovery	% Accep.
GLC01101	G170110-1	96.86	100.3	97%	70%-130%

MS	A. Batch	Spike (mg/Kg)	Sample(mg/Kg)	Spike % Recovery	% Accep.
L3576MS	G170110-1	114	1	113%	70%-130%
L3576MSD	G170110-1	113	1	113%	70%-130%

MSD	A. Batch	MSD (mg/Kg)	MS(mg/Kg)	RPD	% Accep.
L3576MSD	58PI170110-1	113	114	0%	±30%

2415 SE 11th Ave.
Portland, OR 97214

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FAX (503) 231-9344

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 1/12/2017

Blank	Prep. Batch	Result(mg/Kg)	Accep. Range	Sur. % Recovery	% Accep.
GBK01121	G170112-1	0.51	<20	98%	50%-150%

Spike	Prep. Batch	Result (mg/Kg)	Expected (mg/Kg)	spike % Recovery	% Accep.
GLC01121	G170112-1	99.66	100.3	99%	70%-130%

Duplicate	A. Batch	Result (mg/Kg)	Duplicate(mg/Kg)	RPD	% Accep.
L3514	G170112-1	ND	ND	0%	±30%

MS	A. Batch	Spike (mg/Kg)	Sample(mg/Kg)	Spike % Recovery	% Accep.
L3514MS	G170112-1	108	0.14	100%	70%-130%

2415 SE 11th Ave.
Portland, OR 97214

These parameters are accredited in accordance with NELAP-OR100011

Phone (503) 231-9320
FAX (503) 231-9344

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

		INSTRUMENT	SolaTek
PROJECT NAME:	Caldwell Properties	**REPORT NUMBER:**	87018
SITE LOCATION:	1025 SE 6th Ave	**REPORT DATE:**	1/3/17
PROJECT NUMBER:	OR161202-3B	**ACQ. ON**	30Dec20161:21pm
ANALYST		**PREP. BATCH**	V161230
FIELD ID:	SB5-S2-10.5	**LAB ID:**	L3513

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	ND	200		50
bromobenzene	ND	200		50
bromochloromethane	ND	200		50
bromodichloromethane	ND	200		50
bromoform	ND	200		50
n-butylbenzene	11714	200		500
sec-butylbenzene	7112	200		500
tert-butylbenzene	ND	200		50
chlorobenzene	ND	200		50
chloroform	ND	200		50
2-chlorotoluene	ND	200		50
4-chlorotoluene	ND	200		50
dibromochloromethane	ND	200		50
1,2dibromo3-chloropropane	ND	200		50
1,2-dibromoethane	ND	200		50
dibromomethane	ND	200		50
1,2-dichlorobenzene	ND	200		50
1,3-dichlorobenzene	ND	200	g,	50
1,4-dichlorobenzene	ND	200		50
1,1-dichloroethane	ND	200		50
1,2-dichloroethane	ND	200		50
cis-1,2-dichloroethene	ND	200		50
trans-1,2-dichloroethene	ND	200		50
1,2-dichloropropane	ND	200		50
1,3-dichloropropane	ND	200		50
1,1-dichloropropene	ND	200		50
cis-1,3-dichloropropene	ND	200		50
trans-1,3-dichloropropene	ND	200		50
ethylbenzene	1268	200		50
hexachlorobutadiene	ND	200		50
isopropylbenzene	4153	200		500
p-Isopropyltoluene	10895	200		500
methyl-tert-butylether(MTBE)	ND	200		50
naphthalene	10943	200	g,	500
n-propyl-benzene	6635	200		500
styrene	ND	200		50
1,1,1,2-tetrachloroethane	ND	200		50
1,1,2,2-tetrachloroethane	ND	200		50
tetrachloroethylene	ND	200		50
toluene	ND	200		50
1,2,3-trichlorobenzene	ND	200	g,	50
1,2,4-trichlorobenzene	ND	200	g, k,	50
1,1,1-trichloroethane	ND	200		50
1,1,2-trichloroethane	ND	200		50
trichloroethene	495	200		50
1,2,3-trichloropropane	ND	200	k,	50
1,2,4-trimethlybenzene	75805	200		2500
1,3,5-trimethylbenzene	15891	200		500
xylene(m&p)	ND	400		500
o-xylene	ND	200		50
total xylenes	ND	200		50

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	85	92	83

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87018
Date: 12/30/2016

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
3 compounds of Matrix Spike were outside method limts as flagged in the MS QC report

Matrix Spike Duplicate
All criteria were within method limts

Non-Conformance
No non-conformances were associated with this request except noticed below

8260 Qualifiers

g - CCV fails this compound low, result should be considered an estimate
k - LCS fails this compound low, result should be considered an estimate

QUALITY CONTROL REPORT (EPA 8260C)

Run Date: 12/30/2016 **Prep batch:** P12-30-16
Report Date: 12/30/2016 **Analytical batch:** STRA161230

Analyte	BLANK (ug/Kg)	LCS (ug/Kg)	Expected (ug/Kg)	Recovery %
benzene	<4	16	16	100
bromobenzene	<4	13	16	82
bromochloromethane	<4	16	16	101
bromodichloromethane	<4	16	16	98
bromoform	<4	13	16	82
n-butylbenzene	<4	15	16	95
sec-butylbenzene	<4	13	16	84
tert-butylbenzene	<4	14	16	87
chlorobenzene	<4	14	16	90
chloroform	<4	15	16	96
2-chlorotoluene	<4	13	16	83
4-chlorotoluene	<4	13	16	81
dibromochloromethane	<4	16	16	103
1,2dibromo3-chloropropane	<4	12	16	73
1,2-dibromoethane	<4	14	16	90
dibromomethane	<4	15	16	93
1,2-dichlorobenzene	<4	14	16	87
1,3-dichlorobenzene	<4	12	16	74
1,4-dichlorobenzene	<4	14	16	89
1,1-dichloroethane	<4	15	16	93
1,2-dichloroethane	<4	14	16	90
cis-1,2-dichloroethene	<4	15	16	95
trans-1,2-dichloroethene	<4	16	16	98
1,2-dichloropropane	<4	14	16	88
1,3-dichloropropane	<4	15	16	92
1,1-dichloropropene	<4	16	16	99
cis-1,3-dichloropropene	<4	16	16	101
trans-1,3-dichloropropene	<4	16	16	100
ethylbenzene	<4	15	16	92
hexachlorobutadiene	<4	14	16	89
isopropylbenzene	<4	14	16	91
p-Isopropyltoluene	<4	14	16	85
methyl-tert-butylether(MTBE)	<4	13	16	78
naphthalene	<4	11	16	71
n-propyl-benzene	<4	14	16	85
styrene	<4	14	16	85
1,1,1,2-tetrachloroethane	<4	16	16	101
1,1,2,2-tetrachloroethane	<4	11	16	70
tetrachloroethylene	<4	16	16	97
toluene	<4	18	16	110
1,2,3-trichlorobenzene	<4	12	16	72
1,2,4-trichlorobenzene	<4	11	16	66*
1,1,1-trichloroethane	<4	17	16	105
1,1,2-trichloroethane	<4	14	16	88
trichloroethene	<4	16	16	102
1,2,3-trichloropropane	<4	11	16	68*
1,2,4-trimethlybenzene	<4	13	16	83
1,3,5-trimethylbenzene	<4	13	16	84
xylene(m&p)	<8	30	32	95
o-xylene	<4	14	16	90

Control: 70%-130%

* - QC fails on this compound

DUPLICATE / MATRIX SPIKE REPORT (EPA 8260C)

Run Date:	12/30/2016	**Prep batch:**	P12-30-16	**MSD ID:**	SBK32MSD
Report Date:	12/30/2016	**Analytical batch:**	STRA161230	**MS ID**	SBK32MS

Analyte	Sample (ug/Kg)	MSD (ug/Kg)	Recovery (%)	Sample (ug/Kg)	Spike (ug/Kg)	Recovery (%)
benzene	0	16	101	0	16	100
bromobenzene	0	14	87	0	13	82
bromochloromethane	0	17	107	0	16	101
bromodichloromethane	0	16	100	0	16	98
bromoform	0	15	92	0	13	82
n-butylbenzene	0	15	91	0	15	95
sec-butylbenzene	0	14	85	0	13	84
tert-butylbenzene	0	14	89	0	14	87
chlorobenzene	0	15	91	0	14	89
chloroform	0	15	96	0	15	96
2-chlorotoluene	0	14	85	0	13	83
4-chlorotoluene	0	13	84	0	13	81
dibromochloromethane	0	17	105	0	16	103
1,2dibromo3-chloropropane	0	12	78	0	12	73
1,2-dibromoethane	0	16	98	0	14	90
dibromomethane	0	16	99	0	15	93
1,2-dichlorobenzene	0	15	91	0	14	87
1,3-dichlorobenzene	0	13	78	0	12	74
1,4-dichlorobenzene	0	15	91	0	14	89
1,1-dichloroethane	0	15	92	0	15	93
1,2-dichloroethane	0	15	94	0	14	90
cis-1,2-dichloroethene	0	15	95	0	15	95
trans-1,2-dichloroethene	0	15	96	0	16	98
1,2-dichloropropane	0	14	90	0	14	88
1,3-dichloropropane	0	16	98	0	15	92
1,1-dichloropropene	0	16	99	0	16	99
cis-1,3-dichloropropene	0	16	103	0	16	101
trans-1,3-dichloropropene	0	17	104	0	16	100
ethylbenzene	0	15	92	0	15	92
hexachlorobutadiene	0	14	87	0	14	89
isopropylbenzene	0	15	92	0	14	91
p-Isopropyltoluene	0	14	87	0	14	85
methyl-tert-butylether(MTBE)	0	15	95	0	13	78
naphthalene	0	12	75	0	11	71
n-propyl-benzene	0	14	84	0	14	82
styrene	0	14	89	0	14	85
1,1,1,2-tetrachloroethane	0	16	101	0	16	101
1,1,2,2-tetrachloroethane	0	13	81	0	11	70
tetrachloroethylene	0	15	95	0	16	97
toluene	2	18	99	2	18	99
1,2,3-trichlorobenzene	0	12	72	0	12	72
1,2,4-trichlorobenzene	0	11	67*	0	11	66*
1,1,1-trichloroethane	0	16	100	0	17	105
1,1,2-trichloroethane	0	15	96	0	14	88
trichloroethene	0	16	101	0	16	102
1,2,3-trichloropropane	0	13	81	0	11	68*
1,2,4-trimethlybenzene	1	13	80	1	13	79
1,3,5-trimethylbenzene	0	14	85	0	13	84
xylene(m&p)	0	30	95	0	30	95
o-xylene	0	15	93	0	14	90
Control:			70%-130%			70%-130%

* - QC fails on this compound

MATRIX SPIKE / MATRIX SPIKE DUPLICATE REPORT (EPA 8260C)

Run Date:	12/30/2016	**Prep batch:**	P12-30-16	**MS ID:**	SBK32MS
Report Date:	12/30/2016	**Analytical batch:**	STRA161230	**MSD ID:**	SBK32MSD

Analyte	**MS** (ug/Kg)	**MSD** (ug/Kg)	**RPD** (%)
benzene	16	16	1
bromobenzene	13	14	7
bromochloromethane	16	17	6
bromodichloromethane	16	16	2
bromoform	13	15	12
n-butylbenzene	15	15	4
sec-butylbenzene	13	14	0
tert-butylbenzene	14	14	2
chlorobenzene	14	15	2
chloroform	15	15	1
2-chlorotoluene	13	14	3
4-chlorotoluene	13	13	4
dibromochloromethane	16	17	2
1,2dibromo3-chloropropane	12	12	6
1,2-dibromoethane	14	16	8
dibromomethane	15	16	6
1,2-dichlorobenzene	14	15	4
1,3-dichlorobenzene	12	13	5
1,4-dichlorobenzene	14	15	1
1,1-dichloroethane	15	15	1
1,2-dichloroethane	14	15	4
cis-1,2-dichloroethene	15	15	0
trans-1,2-dichloroethene	16	15	2
1,2-dichloropropane	14	14	2
1,3-dichloropropane	15	16	6
1,1-dichloropropene	16	16	0
cis-1,3-dichloropropene	16	16	1
trans-1,3-dichloropropene	16	17	4
ethylbenzene	15	15	1
hexachlorobutadiene	14	14	3
isopropylbenzene	14	15	1
p-Isopropyltoluene	14	14	2
methyl-tert-butylether(MTBE)	13	15	19
naphthalene	11	12	5
n-propyl-benzene	14	14	2
1,1,1,2-tetrachloroethane	14	14	5
1,1,2,2-tetrachloroethane	16	16	1
tetrachloroethylene	11	13	14
toluene	16	15	2
1,2,3-trichlorobenzene	18	18	0
1,2,4-trichlorobenzene	12	12	0
1,1,1-trichloroethane	11	11	1
1,1,2-trichloroethane	17	16	5
trichloroethene	14	15	8
trichlorofluoromethane	16	16	1
1,2,3-trichloropropane	11	13	17
1,2,4-trimethlybenzene	13	13	1
1,3,5-trimethylbenzene	13	14	2
xylene(m&p)	30	30	0
o-xylene	14	15	3
Control:			30

Laboratory Report

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

		Project Name:	Caldwell Properties
		Project Location:	1025 SE 6th Ave
		Project Number:	OR161202-3B
Report Number:	87018	Date Sampled:	12/29/16
Report Date:	1/12/17	Date received:	12/29/16

TCLP-Pb Toxicity Characteristic Leaching Procedure for Lead

EPA 1311- Extraction; EPA 700-Analysis

Field ID	Lab ID	Result mg/L(ppm)	Detection Limit mg/L(ppm)
SB5-S2-10.5	L3513	ND	0.3

ND = Not Detected (below reporting limit or detection limit)

Quality Control Report: Lead (Pb)

PB1701121	Measured Conc. (mg/L)	Expected Concentration (mg/L)	Recovery (%)	Lower Limit	Upper Limit	
ICV	5.1	5.0	103%	80%	120%	PASS
Prep Blank	0.1	0.0	--	0.5 mg/L	--	PASS
LCS	2.1	2.1	105%	70%	130%	PASS
QC Blank	0.0	0.0	--	0.5 mg/L	--	PASS
QC Check	5.1	5.0	101%	80%	120%	PASS
QC Blank	0.0	0.0	--	0.5 mg/L	--	PASS
QC Check	5.2	5.0	105%	80%	120%	PASS
QC Blank	0.0	0.0	--	0.5 mg/L	--	PASS
QC Check	5.1	5.0	103%	80%	120%	PASS
Calibration R^2 : 0.9998		*(Lower Limit: 0.990)*				*PASS*

Wy'East
Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 87018

Phone(503) 231-9320 FAX(503) 231-9344

Company P.S.	Phone 503-780-1569		
Project # ORIG1202-3B	FAX		
Project Name Caldwell Properties	Purchase Order #		
Site 1025 SE 6th Ave	Report Attention ATK	Collected By GIL	
Samples: Temperature 1.5 On Ice? Yes / No	Turnaround Time: ☒ Regular ☐ 3-5 Business Days		

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Comments / Analysis Requested
L35509	SB1-S1-10	12/29	9:58	S	1	4oz	X						
L35510	SB2-S1-10	"	10:39	S	1	4oz	X						
L35511	SB3-S1-10	"	11:30	S	1	4oz	X						
L35512	SB5-S1-7.5	"	12:15	S	1	4oz							HOLD
L35513	SB5-S2-10.5	"	12:30	S	1	4oz	X	X				X	
L35514	SB5-S3-14	"	13:00	S	1	4oz	X						

MW 12/30/16

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]	P.S	12/29	15:15	MW	WyEast	12/29/16	15:16
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

Wy'East
Environmental Sciences Inc.

2415 SE 11th Ave
Portland, OR 97214
Ph: 503-231-9320
Fax: 503-231-9344

Sample Condition Check List

Customer Name : Point Source **COC # :** 57018

Method of Delivery: courier (client) other

Type of ice: Ice (Blue) None **Cooler Temperature:** 1.5°C

Matrix : (Soil) Water Other_____

	Yes	No	NA	Comments
Relinquish signed on Chain of Custody.	/			*
Received by signed on Chain of Custody.	/			*
Chain of Custody filled out.	/			*
Were samples Arrived within Hold Time.	/			* Same day
Rush Trun Around Time Requested. *If yes, how many days* ___			/	*Results
Temperatures measured and written in correct place on COC.	/			* 1.5°C
Correct containers used.	/			* 4oz.
Sufficient Volume.	/			*
ID on COC and Sample labels match.	/			*
Duplicate jars and vials labeled with a, b, c, d etc.			/	*NO Dup Jar
All tests logged in checked against the COC.	/			*
The COC scanned into the main office computer.	/			*

FOR WATER SAMPLES:

Trip Blank: Yes No Waiver on file Submitted by: _____

	Yes	No	Comments
Was sufficient volume provided for analysis.			*
Was sufficient volume provided for QC samples (at least two).			*
HCL Preserved vials.			*
HCL LOT Number: _____			
Were duplicate jars and vials labeled with a, b, c, d etc.			*
Headspace in VOA Vials (>6mm).			*

Client Notification/Resolution: _____

Comments: _____

Reviewed: _____ **Date:** 12/29/16

CSF-0004

1/9/17

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

Re: OR161203-3b

Dear Point Source Solutions

Enclosed are the results of analysis for samples received by the laboraory on 1/6/2017
The results related only to the samples included in this report.
The project was assigned a report number of 87034

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

CY Chan
QA Officer

NW-TPHDx LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

SITE NAME: **C.O.C. NUMBER:** 87034
SITE LOCATION: 1024 SE Grand Ave **REPORT DATE:** 1/10/17
PROJECT NUMBER: OR161203-3b

Analytical Method: NWTPH-Dx **Preparation Method: EPA3545A**

Analytes: Total Diesel and Heavy Oil range petroleum in Soil. Calculated on a dry-weight basis.

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Prepared Batch	Sampling Date
SB18-S1-9.5	L3578	**ND**	**ND**	**95%**	**78FL1701091**	**D170109-1**	**1/6/2017**
SB18-S2-17	L3579	**ND**	**ND**	**101%**	**78FL1701091**	**D170109-1**	**1/6/2017**
SB16-S1-11	L3580	**ND**	**ND**	**93%**	**78FL1701091**	**D170109-1**	**1/6/2017**
SB15-S1-12	L3581	**ND**	**ND**	**91%**	**78FL1701091**	**D170109-1**	**1/6/2017**
SB16-S2-16.5	L3582	**ND**	**ND**	**91%**	**78FL1701091**	**D170109-1**	**1/6/2017**
SB17-S1-12	L3583	**ND**	**ND**	**92%**	**78FL1701091**	**D170109-1**	**1/6/2017**
Reporting Limit:	--	25	100				
Surrogate Limit:				50%-150%			

Surrogate is 1-ChloroOctadecane

ND = Not Detected at or below the Reporting Limit

Results relate only to samples

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Chemist Initials: CY Chan **Reviewed By:**

PERCENT MOISTURE REPORT

REPORT NUMBER: 87034
REPORT DATE: 1/10/17

ASTM D2974-07a

Analytes: Percent Moisture in Sample

LAB ID	Moisture(%)	Date Analyzed
L3578	25.9	1/6/17
L3579	24.6	1/6/17
L3580	26.6	1/6/17
L3581	24.1	1/6/17
L3582	27.4	1/6/17
L3583	24.7	1/6/17

Report Narrative

Method: NWTHP-Dx **Report No.** 87034

Client: Point Source Solutions **Date:** 1/9/2017

Sample Condition

6 Sample(s) were analyzed for NWTPH-Dx. Sample(s)were received in acceptable condition

Sample Temperature

Sample(s) arrived within acceptable temperature range

Sample Hold time

Sample(s) were analyzed within hold time

Initial Calibration

All criteria were within acceptable limits

Continuing Calibration Check (CCV)

All criteria were within method limits

Method Blank

Method Blank meets method limit

Laboratory Control Sample (LCS)

All criteria were within method limits

Duplicate Sample

All criteria were within method limits

Matrix Spike

All criteria were within method limits

Matrix Spike Duplicate

No Matrix Spike Duplicate was run on this batch

Non-Conformance

No non-conformances were associated with this request except noticed below

Quality Control for NWTPH-Dx

Batch Date: 1/9/2017

Units: Soil Blank (mg/Kg) Water Blank (mg/L) CCV & LCS (ug/mL)

Blank Number	PB	Diesel Result	Oil Result	Limits Diesel	Limits Oil	Blank Control	Surr. Recovery	Surr. Limits	Surr. Control
SBK01091	D170109-1	2	0	50	100	PASS	97%	50%-150%	PASS

Diesel LCS Number	PB	Diesel in Extract	Expected Conc.	LCS Recovery (%)	LCS Control Limits	LCS Control	Surr. Recovery	Surr. Limits	Surr. Control
SLC01091	D170109-1	545.84	500.00	109%	±30%	PASS	81%	50%-150%	PASS

Oil LCS Number	PB	Oil in Extract	Expected Conc.	LCS Recovery (%)	LCS Control Limits	LCS Control	Surr. Recovery	Surr. Limits	Surr. Control
SLC01091	D170109-1	501.34	500.00	100%	±30%	PASS	81%	50%-150%	PASS

Diesel Dupl. Number	PB	Sample in Extract	Duplicate In Extract	RPD (%)	Control Limits	Duplicate Control
L3574	D170109-1	17.91233071	2.328113498	0%	±30%	PASS

Oil Dupl. Number	PB	Sample in Extract	Duplicate in Extract	RPD (%)	Control Limits	Duplicate Control
L3574	D170109-1	0	0	0%	±30%	PASS

Diesel MS Number	PB	Sample in Extract	Diesel MS Result	MS Recovery (%)	MS Control Limits	MS Control
L3575MS	D170109-1	3.837275883	639.6959339	95%	70%-130%	PASS

Oil MS Number	PB	Sample in Extract	Oil MS Result	MS Recovery (%)	MS Control Limits	MS Control
L3575MS	D170109-1	0	552.4817328	83%	70%-130%	PASS

NW-TPHGx LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b

C.O.C. NUMBER: 87034
REPORT DATE: 1/9/2017

Analytical Method: NW-TPHGx Preparation Method: EPA 5035
Analytes: Gasoline in Soil. Calculated on a dry-weight basis.

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recov.(%)	Analytical Batch	Preperation Batch	Sampling Date
SB18-S1-9.5	**L3578**	**73**	**106%**	**58PI170109-1**	**G170109-1**	**1/6/2017**
SB18-S2-17	**L3579**	**6540**	**126%**	**58PI170109-1**	**G170109-1**	**1/6/2017**
SB16-S1-11	**L3580**	**21800**	**108%**	**58PI170109-1**	**G170109-1**	**1/6/2017**
SB15-S1-12	**L3581**	**ND**	**102%**	**58PI170109-1**	**G170109-1**	**1/6/2017**
SB16-S2-16.5	**L3582**	**79**	**108%**	**58PI170109-1**	**G170109-1**	**1/6/2017**
SB17-S1-12	**L3583**	**ND**	**108%**	**58PI170109-1**	**G170109-1**	**1/6/2017**
Reporting Limit:	--	20				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

Results relate only to samples.
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Chemist Initials: C.Y. Chan **Reviewer Initials:**

PERCENT MOISTURE REPORT

REPORT NUMBER: 87034
REPORT DATE: 1/9/2017

ASTM D2974-07a
Analytes: Percent Moisture in Sample

LAB ID	Moisture (%)	Date Analyzed
L3578	26	1/6/2017
L3579	25	1/6/2017
L3580	27	1/6/2017
L3581	24	1/6/2017
L3582	27	1/6/2017
L3583	25	1/6/2017

Report Narrative

Method: NWTHP-Gx **Report No.** 87034

Client: Point Source Solutions **Date:** 1/9/2017

Sample Condition
6 sample(s) were analyzed for NWTPH-Gx. Sample(s)were received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
sample(s) were analyzed within hold time

Initial Calibration

All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts

Method Blank
Method Blank meets method limt

Laboratory Control Sample (LCS)
All criteria were within method limts

Duplicate Sample
No duplicate was run with this batch

Matrix Spike
All MS criteria were within method limts
All MSD criteria were within method limts

Matrix Spike Duplicate RPD
All criteria were within method limts

Non-Conformance
No non-conformances were associated with this request except noticed below

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 1/9/2017

Blank	Prep. Batch	Result(mg/Kg)	Accep. Range	Sur. % Recovery	% Accep.
GBK01091	G170109-1	0.73	<20	99%	50%-150%

Spike	Prep. Batch	Result (mg/Kg)	Expected (mg/Kg)	spike % Recovery	% Accep.
GLC01091	G170109-1	99.22	100.3	99%	70%-130%

MS	A. Batch	Spike (mg/Kg)	Sample(mg/Kg)	Spike % Recovery	% Accep.
BLK57MS	G170109-1	99	1	98%	70%-130%
BLK57MSD	G170109-1	98	1	97%	70%-130%

MSD	A. Batch	MSD (mg/Kg)	MS(mg/Kg)	RPD	% Accep.
BLK57MSD	58PI170109-1	98	99	-2%	±30%

2415 SE 11th Ave.
Portland, OR 97214

These parameters are accredited in accordance with NELAP-OR100011

Phone (503) 231-9320
FAX (503) 231-9344

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b
ANALYST
FIELD ID: SB18-S1-9.5

INSTRUMENT SolaTek
REPORT NUMBER: 87034
REPORT DATE: 1/10/17
ACQ. ON 9Jan20173:30pm
PREP. BATCH V170109
LAB ID: L3578

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	ND	200		50
bromobenzene	ND	200		50
bromochloromethane	ND	200		50
bromodichloromethane	ND	200		50
bromoform	ND	200		50
n-butylbenzene	ND	200		50
sec-butylbenzene	ND	200		50
tert-butylbenzene	ND	200		50
chlorobenzene	ND	200		50
chloroform	ND	200		50
2-chlorotoluene	ND	200		50
4-chlorotoluene	ND	200		50
dibromochloromethane	ND	200		50
1,2dibromo3-chloropropane	ND	200		50
1,2-dibromoethane	ND	200		50
dibromomethane	ND	200		50
1,2-dichlorobenzene	ND	200		50
1,3-dichlorobenzene	ND	200		50
1,4-dichlorobenzene	ND	200		50
1,1-dichloroethane	ND	200		50
1,2-dichloroethane	ND	200		50
1,1-dichloroethene	ND	200		50
cis-1,2-dichloroethene	ND	200		50
trans-1,2-dichloroethene	ND	200		50
1,2-dichloropropane	ND	200		50
1,3-dichloropropane	ND	200		50
1,1-dichloropropene	ND	200		50
cis-1,3-dichloropropene	ND	200		50
trans-1,3-dichloropropene	ND	200		50
ethylbenzene	ND	200		50
hexachlorobutadiene	ND	200		50
isopropylbenzene	ND	200		50
p-Isopropyltoluene	ND	200		50
methyl-tert-butylether(MTBE)	ND	200		50
naphthalene	ND	200		50
n-propyl-benzene	ND	200		50
styrene	ND	200		50
1,1,1,2-tetrachloroethane	ND	200		50
1,1,2,2-tetrachloroethane	ND	200		50
tetrachloroethylene	ND	200		50
toluene	ND	200		50
1,2,3-trichlorobenzene	ND	200		50
1,2,4-trichlorobenzene	ND	200		50
1,1,1-trichloroethane	ND	200		50
1,1,2-trichloroethane	ND	200		50
trichloroethene	ND	200		50
1,2,3-trichloropropane	ND	200		50
1,2,4-trimethlybenzene	478	200		50
1,3,5-trimethylbenzene	ND	200		50
xylene(m&p)	ND	200		50
o-xylene	ND	200		50
total xylenes	ND	200		50

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	108	101	106

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87034
Date: 1/9/2017

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All criteria were within method limts

Matrix Spike Duplicate
1 compounds of Matrix Spike Duplicate were outside method limts as flagged in the MSD QC report

Non-Conformance
No non-conformances were associated with this request except noticed below

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b
ANALYST
FIELD ID: SB18-S2-17

INSTRUMENT SolaTek
REPORT NUMBER: 87034
REPORT DATE: 1/10/17
ACQ. ON 9Jan20176:27pm
PREP. BATCH V170109
LAB ID: L3579

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	ND	204		50
bromobenzene	ND	204		50
bromochloromethane	ND	204		50
bromodichloromethane	ND	204		50
bromoform	ND	204		50
n-butylbenzene	5851	204		500
sec-butylbenzene	5606	204		500
tert-butylbenzene	ND	204		50
chlorobenzene	ND	204		50
chloroform	ND	204		50
2-chlorotoluene	ND	204		50
4-chlorotoluene	ND	204		50
dibromochloromethane	ND	204		50
1,2dibromo3-chloropropane	ND	204		50
1,2-dibromoethane	ND	204		50
dibromomethane	ND	204		50
1,2-dichlorobenzene	ND	204		50
1,3-dichlorobenzene	ND	204		50
1,4-dichlorobenzene	ND	204		50
1,1-dichloroethane	ND	204		50
1,2-dichloroethane	ND	204		50
1,1-dichloroethene	ND	204		50
cis-1,2-dichloroethene	ND	204		50
trans-1,2-dichloroethene	ND	204		50
1,2-dichloropropane	ND	204		50
1,3-dichloropropane	ND	204		50
1,1-dichloropropene	ND	204		50
cis-1,3-dichloropropene	ND	204		50
trans-1,3-dichloropropene	ND	204		50
ethylbenzene	4420	204		500
hexachlorobutadiene	ND	204		50
isopropylbenzene	4371	204		500
p-Isopropyltoluene	7556	204		500
methyl-tert-butylether(MTBE)	ND	204		50
naphthalene	3764	204		500
n-propyl-benzene	7259	204		500
styrene	ND	204		50
1,1,1,2-tetrachloroethane	ND	204		50
1,1,2,2-tetrachloroethane	ND	204		50
tetrachloroethylene	ND	204		50
toluene	ND	204		50
1,2,3-trichlorobenzene	ND	204		50
1,2,4-trichlorobenzene	ND	204		50
1,1,1-trichloroethane	ND	204		50
1,1,2-trichloroethane	ND	204		50
trichloroethene	ND	204		50
1,2,3-trichloropropane	ND	204		50
1,2,4-trimethlybenzene	48284	204		2500
1,3,5-trimethylbenzene	17360	204		500
xylene(m&p)	6487	404		500
o-xylene	315	204		50
total xylenes	6802	204		50

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	82	84	96

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87034
Date: 1/9/2017

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All criteria were within method limts

Matrix Spike Duplicate
1 compounds of Matrix Spike Duplicate were outside method limts as flagged in the MSD QC report

Non-Conformance
No non-conformances were associated with this request except noticed below

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b
ANALYST
FIELD ID: SB16-S1-11

INSTRUMENT SolaTek
REPORT NUMBER: 87034
REPORT DATE: 1/12/17
ACQ. ON 9Jan20176:57pm
PREP. BATCH V170109
LAB ID: L3580

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	1274	200		50
bromobenzene	ND	200		50
bromochloromethane	ND	200		50
bromodichloromethane	ND	200		50
bromoform	ND	200		50
n-butylbenzene	13671	200		2500
sec-butylbenzene	12540	200		2500
tert-butylbenzene	ND	200		50
chlorobenzene	ND	200		50
chloroform	ND	200		50
2-chlorotoluene	ND	200		50
4-chlorotoluene	ND	200		50
dibromochloromethane	ND	200		50
1,2dibromo3-chloropropane	ND	200		50
1,2-dibromoethane	ND	200		50
dibromomethane	ND	200		50
1,2-dichlorobenzene	ND	200		50
1,3-dichlorobenzene	ND	200		50
1,4-dichlorobenzene	ND	200		50
1,1-dichloroethane	ND	200		50
1,2-dichloroethane	ND	200		50
1,1-dichloroethene	ND	200		50
cis-1,2-dichloroethene	ND	200		50
trans-1,2-dichloroethene	ND	200		50
1,2-dichloropropane	ND	200		50
1,3-dichloropropane	ND	200		50
1,1-dichloropropene	ND	200		50
cis-1,3-dichloropropene	ND	200		50
trans-1,3-dichloropropene	ND	200		50
ethylbenzene	17895	200		2500
hexachlorobutadiene	ND	200		50
isopropylbenzene	13908	200		2500
p-Isopropyltoluene	14649	200		2500
methyl-tert-butylether(MTBE)	ND	200		50
naphthalene	13844	200		2500
n-propyl-benzene	23113	200		2500
styrene	ND	200		50
1,1,1,2-tetrachloroethane	ND	200		50
1,1,2,2-tetrachloroethane	ND	200		50
tetrachloroethylene	ND	200		50
toluene	ND	200		50
1,2,3-trichlorobenzene	ND	200		50
1,2,4-trichlorobenzene	ND	200		50
1,1,1-trichloroethane	ND	200		50
1,1,2-trichloroethane	ND	200		50
trichloroethene	ND	200		50
1,2,3-trichloropropane	ND	200		50
1,2,4-trimethlybenzene	152401	200		5000
1,3,5-trimethylbenzene	43953	200		2500
xylene(m&p)	41917	200		2500
o-xylene	17436	200		2500
total xylenes	59353	200		2500

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	81	77	98

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87034
Date: 1/9/2017

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All criteria were within method limts

Matrix Spike Duplicate
1 compounds of Matrix Spike Duplicate were outside method limts as flagged in the MSD QC report

Non-Conformance
No non-conformances were associated with this request except noticed below

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b
ANALYST
FIELD ID: SB15-S1-12

INSTRUMENT SolaTek
REPORT NUMBER: 87034
REPORT DATE: 1/10/17
ACQ. ON 9Jan20174:57pm
PREP. BATCH V170109
LAB ID: L3581

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	ND	202		50
bromobenzene	ND	202		50
bromochloromethane	ND	202		50
bromodichloromethane	ND	202		50
bromoform	ND	202		50
n-butylbenzene	ND	202		50
sec-butylbenzene	ND	202		50
tert-butylbenzene	ND	202		50
chlorobenzene	ND	202		50
chloroform	ND	202		50
2-chlorotoluene	ND	202		50
4-chlorotoluene	ND	202		50
dibromochloromethane	ND	202		50
1,2dibromo3-chloropropane	ND	202		50
1,2-dibromoethane	ND	202		50
dibromomethane	ND	202		50
1,2-dichlorobenzene	ND	202		50
1,3-dichlorobenzene	ND	202		50
1,4-dichlorobenzene	ND	202		50
1,1-dichloroethane	ND	202		50
1,2-dichloroethane	ND	202		50
1,1-dichloroethene	ND	202		50
cis-1,2-dichloroethene	ND	202		50
trans-1,2-dichloroethene	ND	202		50
1,2-dichloropropane	ND	202		50
1,3-dichloropropane	ND	202		50
1,1-dichloropropene	ND	202		50
cis-1,3-dichloropropene	ND	202		50
trans-1,3-dichloropropene	ND	202		50
ethylbenzene	ND	202		50
hexachlorobutadiene	ND	202		50
isopropylbenzene	ND	202		50
p-Isopropyltoluene	ND	202		50
methyl-tert-butylether(MTBE)	ND	202		50
naphthalene	ND	202		50
n-propyl-benzene	ND	202		50
styrene	ND	202		50
1,1,1,2-tetrachloroethane	ND	202		50
1,1,2,2-tetrachloroethane	ND	202		50
tetrachloroethylene	ND	202		50
toluene	ND	202		50
1,2,3-trichlorobenzene	ND	202		50
1,2,4-trichlorobenzene	ND	202		50
1,1,1-trichloroethane	ND	202		50
1,1,2-trichloroethane	ND	202		50
trichloroethene	ND	202		50
1,2,3-trichloropropane	ND	202		50
1,2,4-trimethlybenzene	ND	202		50
1,3,5-trimethylbenzene	ND	202		50
xylene(m&p)	ND	404		50
o-xylene	ND	202		50
total xylenes	ND	202		50

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	110	100	91

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87034
Date: 1/9/2017

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All criteria were within method limts

Matrix Spike Duplicate
1 compounds of Matrix Spike Duplicate were outside method limts as flagged in the MSD QC report

Non-Conformance
No non-conformances were associated with this request except noticed below

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b
ANALYST
FIELD ID: SB16-S2-16.5

INSTRUMENT SolaTek
REPORT NUMBER: 87034
REPORT DATE: 1/10/17
ACQ. ON 9Jan20175:27pm
PREP. BATCH V170109
LAB ID: L3582

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	ND	200		50
bromobenzene	ND	200		50
bromochloromethane	ND	200		50
bromodichloromethane	ND	200		50
bromoform	ND	200		50
n-butylbenzene	ND	200		50
sec-butylbenzene	ND	200		50
tert-butylbenzene	ND	200		50
chlorobenzene	ND	200		50
chloroform	ND	200		50
2-chlorotoluene	ND	200		50
4-chlorotoluene	ND	200		50
dibromochloromethane	ND	200		50
1,2dibromo3-chloropropane	ND	200		50
1,2-dibromoethane	ND	200		50
dibromomethane	ND	200		50
1,2-dichlorobenzene	ND	200		50
1,3-dichlorobenzene	ND	200		50
1,4-dichlorobenzene	ND	200		50
1,1-dichloroethane	ND	200		50
1,2-dichloroethane	ND	200		50
1,1-dichloroethene	ND	200		50
cis-1,2-dichloroethene	ND	200		50
trans-1,2-dichloroethene	ND	200		50
1,2-dichloropropane	ND	200		50
1,3-dichloropropane	ND	200		50
1,1-dichloropropene	ND	200		50
cis-1,3-dichloropropene	ND	200		50
trans-1,3-dichloropropene	ND	200		50
ethylbenzene	ND	200		50
hexachlorobutadiene	ND	200		50
isopropylbenzene	ND	200		50
p-Isopropyltoluene	ND	200		50
methyl-tert-butylether(MTBE)	ND	200		50
naphthalene	ND	200		50
n-propyl-benzene	ND	200		50
styrene	ND	200		50
1,1,1,2-tetrachloroethane	ND	200		50
1,1,2,2-tetrachloroethane	ND	200		50
tetrachloroethylene	ND	200		50
toluene	ND	200		50
1,2,3-trichlorobenzene	ND	200		50
1,2,4-trichlorobenzene	ND	200		50
1,1,1-trichloroethane	ND	200		50
1,1,2-trichloroethane	ND	200		50
trichloroethene	ND	200		50
1,2,3-trichloropropane	ND	200		50
1,2,4-trimethlybenzene	410	200		50
1,3,5-trimethylbenzene	ND	200		50
xylene(m&p)	ND	400		50
o-xylene	ND	200		50
total xylenes	ND	200		50

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	118	100	104

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87034
Date: 1/9/2017

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All criteria were within method limts

Matrix Spike Duplicate
1 compounds of Matrix Spike Duplicate were outside method limts as flagged in the MSD QC report

Non-Conformance
No non-conformances were associated with this request except noticed below

LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

PROJECT NAME:
SITE LOCATION: 1024 SE Grand Ave
PROJECT NUMBER: OR161203-3b
ANALYST
FIELD ID: SB17-S1-12

INSTRUMENT SolaTek
REPORT NUMBER: 87034
REPORT DATE: 1/10/17
ACQ. ON 9Jan20175:57pm
PREP. BATCH V170109
LAB ID: L3583

Analytical Method: EPA 8260C **Preparation Method: EPA 5035A**
Analyte: Volatile Organics in Soil

Compound	Sample (ug/Kg)	Quant. Limit (ug/Kg)	Qualifier	Dilution Factor
benzene	ND	202		50
bromobenzene	ND	202		50
bromochloromethane	ND	202		50
bromodichloromethane	ND	202		50
bromoform	ND	202		50
n-butylbenzene	ND	202		50
sec-butylbenzene	ND	202		50
tert-butylbenzene	ND	202		50
chlorobenzene	ND	202		50
chloroform	ND	202		50
2-chlorotoluene	ND	202		50
4-chlorotoluene	ND	202		50
dibromochloromethane	ND	202		50
1,2dibromo3-chloropropane	ND	202		50
1,2-dibromoethane	ND	202		50
dibromomethane	ND	202		50
1,2-dichlorobenzene	ND	202		50
1,3-dichlorobenzene	ND	202		50
1,4-dichlorobenzene	ND	202		50
1,1-dichloroethane	ND	202		50
1,2-dichloroethane	ND	202		50
1,1-dichloroethene	ND	202		50
cis-1,2-dichloroethene	ND	202		50
trans-1,2-dichloroethene	ND	202		50
1,2-dichloropropane	ND	202		50
1,3-dichloropropane	ND	202		50
1,1-dichloropropene	ND	202		50
cis-1,3-dichloropropene	ND	202		50
trans-1,3-dichloropropene	ND	202		50
ethylbenzene	ND	202		50
hexachlorobutadiene	ND	202		50
isopropylbenzene	ND	202		50
p-Isopropyltoluene	ND	202		50
methyl-tert-butylether(MTBE)	ND	202		50
naphthalene	ND	202		50
n-propyl-benzene	ND	202		50
styrene	ND	202		50
1,1,1,2-tetrachloroethane	ND	202		50
1,1,2,2-tetrachloroethane	ND	202		50
tetrachloroethylene	ND	202		50
toluene	ND	202		50
1,2,3-trichlorobenzene	ND	202		50
1,2,4-trichlorobenzene	ND	202		50
1,1,1-trichloroethane	ND	202		50
1,1,2-trichloroethane	ND	202		50
trichloroethene	ND	202		50
1,2,3-trichloropropane	ND	202		50
1,2,4-trimethlybenzene	ND	202		50
1,3,5-trimethylbenzene	ND	202		50
xylene(m&p)	ND	404		50
o-xylene	ND	202		50
total xylenes	ND	202		50

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	124	100	89

Analyst: CY Chan **Reviewer Initials:**

Report Narrative

Method: 8260
Client: Point Source Solutions

Report No. 87034
Date: 1/9/2017

Sample Condition
Sample was analyzed for 8260. Sample was received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
Sample was analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts. Any exceptions are qualified in the body of the report

Method Blank
Method Blank meets method limt. Any exceptions are qualified in the body of the report

Laboratory Control Sample (LCS)
All criteria were within method limts, Any exceptions are qualified in the body of the report

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All criteria were within method limts

Matrix Spike Duplicate
1 compounds of Matrix Spike Duplicate were outside method limts as flagged in the MSD QC report

Non-Conformance
No non-conformances were associated with this request except noticed below

QUALITY CONTROL REPORT (EPA 8260C)

Run Date: 1/9/2017 **Prep batch:** P1-9-17
Report Date: 1/10/2017 **Analytical batch:** STRA170109

Analyte	BLANK (ug/Kg)	LCS (ug/Kg)	Expected (ug/Kg)	Recovery %
benzene	<4	17	16	105
bromobenzene	<4	19	16	119
bromochloromethane	<4	15	16	93
bromodichloromethane	<4	16	16	101
bromoform	<4	19	16	116
n-butylbenzene	<4	14	16	89
sec-butylbenzene	<4	19	16	120
tert-butylbenzene	<4	20	16	122
chlorobenzene	<4	18	16	111
chloroform	<4	16	16	100
2-chlorotoluene	<4	18	16	114
4-chlorotoluene	<4	19	16	116
dibromochloromethane	<4	15	16	95
1,2dibromo3-chloropropane	<4	17	16	104
1,2-dibromoethane	<4	15	16	93
dibromomethane	<4	17	16	107
1,2-dichlorobenzene	<4	14	16	89
1,3-dichlorobenzene	<4	14	16	91
1,4-dichlorobenzene	<4	15	16	95
1,1-dichloroethane	<4	16	16	97
1,2-dichloroethane	<4	16	16	100
1,1-dichloroethene	<4	16	16	100
cis-1,2-dichloroethene	<4	15	16	93
trans-1,2-dichloroethene	<4	16	16	98
1,2-dichloropropane	<4	16	16	101
1,3-dichloropropane	<4	15	16	92
1,1-dichloropropene	<4	15	16	91
cis-1,3-dichloropropene	<4	13	16	82
trans-1,3-dichloropropene	<4	14	16	89
ethylbenzene	<4	17	16	109
hexachlorobutadiene	<4	15	16	92
isopropylbenzene	<4	19	16	116
p-Isopropyltoluene	<4	17	16	106
methyl-tert-butylether(MTBE)	<4	14	16	85
naphthalene	<4	18	16	114
n-propyl-benzene	<4	20	16	122
styrene	<4	17	16	108
1,1,1,2-tetrachloroethane	<4	19	16	119
1,1,2,2-tetrachloroethane	<4	20	16	128
tetrachloroethylene	<4	16	16	100
toluene	<4	16	16	103
1,2,3-trichlorobenzene	<4	20	16	127
1,2,4-trichlorobenzene	<4	16	16	101
1,1,1-trichloroethane	<4	17	16	106
1,1,2-trichloroethane	<4	16	16	102
trichloroethene	<4	16	16	97
1,2,3-trichloropropane	<4	17	16	105
1,2,4-trimethlybenzene	<4	18	16	110
1,3,5-trimethylbenzene	<4	19	16	117
xylene(m&p)	<8	36	32	114
o-xylene	<4	17	16	108

Control: 70%-130%

DUPLICATE / MATRIX SPIKE REPORT (EPA 8260C)

Run Date:	1/9/2017	**Prep batch:**	P1-9-17	**MSD ID:**	SBK33MSD
Report Date:	1/10/2017	**Analytical batch:**	STRA170109	**MS ID**	SBK33MS

Analyte	**Sample** (ug/Kg)	**MSD** (ug/Kg)	**Recovery** (%)	**Sample** (ug/Kg)	**Spike** (ug/Kg)	**Recovery** (%)
benzene	0	15	96	0	17	105
bromobenzene	0	15	93	0	19	119
bromochloromethane	0	15	96	0	15	93
bromodichloromethane	0	16	101	0	16	101
bromoform	0	16	97	0	19	116
n-butylbenzene	0	15	95	0	14	89
sec-butylbenzene	0	15	92	0	19	120
tert-butylbenzene	0	15	93	0	20	122
chlorobenzene	0	15	95	0	18	111
chloroform	0	14	90	0	16	100
2-chlorotoluene	0	17	105	0	18	114
4-chlorotoluene	0	15	91	0	19	116
dibromochloromethane	0	17	103	0	15	95
1,2dibromo3-chloropropane	0	15	96	0	17	104
1,2-dibromoethane	0	17	104	0	15	93
dibromomethane	0	16	102	0	17	107
1,2-dichlorobenzene	0	16	99	0	14	89
1,3-dichlorobenzene	0	14	88	0	14	91
1,4-dichlorobenzene	0	16	98	0	15	95
1,1-dichloroethane	0	15	96	0	16	97
1,2-dichloroethane	0	15	91	0	16	100
1,1-dichloroethene	0	15	93	0	16	100
cis-1,2-dichloroethene	0	15	95	0	15	93
trans-1,2-dichloroethene	0	15	95	0	16	98
1,2-dichloropropane	0	16	98	0	16	101
1,3-dichloropropane	0	16	100	0	15	92
1,1-dichloropropene	0	15	95	0	15	91
cis-1,3-dichloropropene	0	16	99	0	13	82
trans-1,3-dichloropropene	0	17	106	0	14	89
ethylbenzene	0	15	94	0	17	109
hexachlorobutadiene	0	15	96	0	15	92
isopropylbenzene	0	15	94	0	19	116
p-Isopropyltoluene	0	14	90	0	17	106
methyl-tert-butylether(MTBE)	0	16	98	0	14	85
naphthalene	0	18	110	0	18	114
n-propyl-benzene	0	15	93	0	20	122
styrene	0	15	93	0	17	108
1,1,1,2-tetrachloroethane	0	15	97	0	19	119
1,1,2,2-tetrachloroethane	0	15	93	0	20	128
tetrachloroethylene	0	16	99	0	16	100
toluene	0	16	97	0	16	103
1,2,3-trichlorobenzene	0	16	103	0	20	127
1,2,4-trichlorobenzene	0	16	97	0	16	101
1,1,1-trichloroethane	0	16	99	0	17	106
1,1,2-trichloroethane	0	16	102	0	16	102
trichloroethene	0	15	95	0	16	97
1,2,3-trichloropropane	0	16	99	0	17	105
1,2,4-trimethlybenzene	0	14	90	0	18	110
1,3,5-trimethylbenzene	0	15	93	0	19	117
xylene(m&p)	0	30	94	0	36	114
o-xylene	0	15	95	0	17	108
Control:			70%-130%			70%-130%

MATRIX SPIKE / MATRIX SPIKE DUPLICATE REPORT (EPA 8260C)

Run Date:	1/9/2017	**Prep batch:**	P1-9-17	**MS ID:**	SBK33MS
Report Date:	1/10/2017	**Analytical batch:**	STRA170109	**MSD ID:**	SBK33MSD

Analyte	**MS** (ug/Kg)	**MSD** (ug/Kg)	**RPD** (%)
benzene	17	15	9
bromobenzene	19	15	25
bromochloromethane	15	15	3
bromodichloromethane	16	16	0
bromoform	19	16	18
n-butylbenzene	14	15	6
sec-butylbenzene	19	15	26
tert-butylbenzene	20	15	28
chlorobenzene	18	15	16
chloroform	16	14	10
2-chlorotoluene	18	17	9
4-chlorotoluene	19	15	24
dibromochloromethane	15	17	9
1,2dibromo3-chloropropane	17	15	8
1,2-dibromoethane	15	17	11
dibromomethane	17	16	5
1,2-dichlorobenzene	14	16	10
1,3-dichlorobenzene	14	14	3
1,4-dichlorobenzene	15	16	3
1,1-dichloroethane	16	15	2
1,2-dichloroethane	16	15	9
1,1-dichloroethene	16	15	7
cis-1,2-dichloroethene	15	15	2
trans-1,2-dichloroethene	16	15	4
1,2-dichloropropane	16	16	3
1,3-dichloropropane	15	16	8
1,1-dichloropropene	15	15	3
cis-1,3-dichloropropene	13	16	19
trans-1,3-dichloropropene	14	17	17
ethylbenzene	17	15	14
hexachlorobutadiene	15	15	4
isopropylbenzene	19	15	21
p-Isopropyltoluene	17	14	17
methyl-tert-butylether(MTBE)	14	16	14
naphthalene	18	18	3
n-propyl-benzene	20	15	28
1,1,1,2-tetrachloroethane	17	15	14
1,1,2,2-tetrachloroethane	19	15	20
tetrachloroethylene	20	15	31*
toluene	16	16	1
1,2,3-trichlorobenzene	16	16	6
1,2,4-trichlorobenzene	20	16	21
1,1,1-trichloroethane	16	16	3
1,1,2-trichloroethane	17	16	7
trichloroethene	16	16	0
trichlorofluoromethane	16	15	2
1,2,3-trichloropropane	17	16	6
1,2,4-trimethlybenzene	18	14	19
1,3,5-trimethylbenzene	19	15	23
xylene(m&p)	36	30	19
o-xylene	17	15	13
Control:			30

* - QC fails on this compound

Laboratory Report

Point Source Solutions
10445 SW Canyon Rd Suite 115
Portland, OR 97214

Project Name:
Project Location: 1024 SE Grand Ave
Project Number: OR161203-3b
Report Number: 87034
Report Date: 1/16/17
Date Sampled: 1/6/17
Date received: 1/6/17

TCLP-Pb Toxicity Characteristic Leaching Procedure for Lead

EPA 1311- Extraction; EPA 700-Analysis

Field ID	Lab ID	Result mg/L(ppm)	Detection Limit mg/L(ppm)
SB16-S1-11	L3580	<0.2	0.2

Quality Control Report: Lead (Pb)

PB1701161	Measured Conc. (mg/L)	Expected Concentration (mg/L)	Recovery (%)	Lower Limit	Upper Limit	
ICV	5.2	5.0	104%	80%	120%	PASS
Prep Blank	0.0	0.0	--	0.5 mg/L	--	PASS
LCS	3.1	2.7	113%	70%	130%	PASS
QC Blank	0.0	0.0	--	0.5 mg/L	--	PASS
QC Check	5.3	5.0	105%	80%	120%	PASS
Calibration R^2 :	*1.*	*(Lower Limit: 0.990)*				*PASS*

WyEast
Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 87034

Phone(503) 231-9320 FAX(503) 231-9344

Company: Point Source Solutions	Phone: (503) 422-2675
Project #: ORI61203-36	FAX:
Project Name:	Purchase Order #:
Site: 1024 SE Grand Ave	Report Attention: / Collected By:
Samples: Temperature 1.5 °C On Ice? (Yes) / No	Turnaround Time: ☒ Regular ☐ 3-5 Business Days

Comments: Andy cc: Johnny & Gil

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
L3578	SB18-S1-9.5	1-6-17		S	1	4oz	X	X				X	
L3579	SB18-S2-17	"		S	2	"	X	X				X	
L3580	SB16-S1-11	"		S	2	"	X	X				X	
L3581	SB15-S1-12	"		S	1	"	X	X				X	
L3582	SB16-S2-16.5	"		S	1	"	X	X				X	
L3583	SB17-S1-12	"		S	1	"	X	X				X	

Pg. 26 of 27

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Jake Rau	PSS	1-6-17		W	Wy'East	1/6/17	2035
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

Wy'East
Environmental Sciences Inc.

2415 SE 11th Ave
Portland, OR 97214
Ph: 503-231-9320
Fax: 503-231-9344

Sample Condition Check List

Customer Name : Point Source **COC # :** 87034

Method of Delivery: courier (client) other _____

Type of ice: (Ice) Blue None **Cooler Temperature:** 1.5°C

Matrix : (Soil) Water Other _____

	Yes	No	NA	Comments
Relinquish signed on Chain of Custody.	✓			*
Received by signed on Chain of Custody.	✓			*
Chain of Custody filled out.	✓			*
Were samples Arrived within Hold Time.	✓			* Same day
Rush Trun Around Time Requested. *If yes, how many days* ____			✓	* Regular
Temperatures measured and written in correct place on COC.	✓			* 1.5°C
Correct containers used.	✓			* 40z
Sufficient Volume.	✓			*
ID on COC and Sample labels match.	✓			*
Duplicate jars and vials labeled with a, b, c, d etc.			✓	* NO Dup Jar
All tests logged in checked against the COC.	✓			*
The COC scanned into the main office computer.	✓			*

FOR WATER SAMPLES:

Trip Blank: Yes Waiver on file Submitted by: _____
No

	Yes	No	Comments
Was sufficient volume provided for analysis.			*
Was sufficient volume provided for QC samples (at least two).			*
HCL Preserved vials.			*
HCL LOT Number: _____			
Were duplicate jars and vials labeled with a, b, c, d etc.			*
Headspace in VOA Vials (>6mm).			*

Client Notification/Resolution: _____

Comments: _____

Reviewed: _____ **Date:** 1/6/17

CSF-0004

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Thursday, March 30, 2017

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: German Auto / OR1203-3C

Enclosed are the results of analyses for work order A7C0722, which was received by the laboratory on 3/23/2017 at 3:22:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Kevin J. Friscia, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB22-S1-12	A7C0722-01	Soil	03/22/17 20:00	03/23/17 15:22
SB23-S1-12	A7C0722-02	Soil	03/22/17 18:45	03/23/17 15:22
SB24-S1-4.5	A7C0722-03	Soil	03/22/17 20:29	03/23/17 15:22
SB24-S2-13.7	A7C0722-04	Soil	03/22/17 21:20	03/23/17 15:22
SB25-S1-14	A7C0722-05	Soil	03/22/17 22:07	03/23/17 15:22

Apex Laboratories

Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB22-S1-12 (A7C0722-01)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
Gasoline Range Organics	**13800**	---	152	mg/kg dry	1000	03/24/17 15:32	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 352 %*	*Limits: 50-150 %*	1	"	"	*S-08*
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	
SB23-S1-12 (A7C0722-02RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Gasoline Range Organics	**15000**	---	1610	mg/kg dry	10000	03/26/17 15:32	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 121 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
SB24-S1-4.5 (A7C0722-03RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Gasoline Range Organics	**18300**	---	1570	mg/kg dry	10000	03/26/17 15:59	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 133 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	
SB24-S2-13.7 (A7C0722-04RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Gasoline Range Organics	**114**	---	8.23	mg/kg dry	50	03/26/17 14:38	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 133 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*105 %*	*Limits: 50-150 %*	"	"	"	
SB25-S1-14 (A7C0722-05RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Gasoline Range Organics	ND	---	8.24	mg/kg dry	50	03/26/17 15:05	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB22-S1-12 (A7C0722-01)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
Acetone	ND	---	30500	ug/kg dry	1000	03/24/17 15:32	5035/8260B	
Benzene	ND	---	305	"	"	"	"	
Bromobenzene	ND	---	761	"	"	"	"	
Bromochloromethane	ND	---	1520	"	"	"	"	
Bromodichloromethane	ND	---	3050	"	"	"	"	
Bromoform	ND	---	3050	"	"	"	"	
Bromomethane	ND	---	15200	"	"	"	"	
2-Butanone (MEK)	ND	---	15200	"	"	"	"	
n-Butylbenzene	**9770**	---	1520	"	"	"	"	
sec-Butylbenzene	**11300**	---	1520	"	"	"	"	
tert-Butylbenzene	ND	---	1520	"	"	"	"	
Carbon tetrachloride	ND	---	1520	"	"	"	"	
Chlorobenzene	ND	---	761	"	"	"	"	
Chloroethane	ND	---	15200	"	"	"	"	EST
Chloroform	ND	---	1520	"	"	"	"	
Chloromethane	ND	---	7610	"	"	"	"	
2-Chlorotoluene	ND	---	3050	"	"	"	"	R-02
4-Chlorotoluene	ND	---	1520	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	7610	"	"	"	"	
Dibromochloromethane	ND	---	3050	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	1520	"	"	"	"	
Dibromomethane	ND	---	1520	"	"	"	"	
1,2-Dichlorobenzene	ND	---	761	"	"	"	"	
1,3-Dichlorobenzene	ND	---	761	"	"	"	"	
1,4-Dichlorobenzene	ND	---	761	"	"	"	"	
Dichlorodifluoromethane	ND	---	3050	"	"	"	"	
1,1-Dichloroethane	ND	---	761	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	761	"	"	"	"	
1,1-Dichloroethene	ND	---	761	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	761	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	761	"	"	"	"	
1,2-Dichloropropane	ND	---	761	"	"	"	"	
1,3-Dichloropropane	ND	---	1520	"	"	"	"	
2,2-Dichloropropane	ND	---	1520	"	"	"	"	
1,1-Dichloropropene	ND	---	1520	"	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB22-S1-12 (A7C0722-01)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
cis-1,3-Dichloropropene	ND	---	1520	ug/kg dry	1000	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	1520	"	"	"	"	
Ethylbenzene	**2480**	---	761	"	"	"	"	
Hexachlorobutadiene	ND	---	3050	"	"	"	"	
2-Hexanone	ND	---	15200	"	"	"	"	
Isopropylbenzene	**7060**	---	1520	"	"	"	"	
4-Isopropyltoluene	**12900**	---	1520	"	"	"	"	M-02
4-Methyl-2-pentanone (MiBK)	ND	---	15200	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1520	"	"	"	"	
Methylene chloride	ND	---	7610	"	"	"	"	
Naphthalene	**5880**	---	3050	"	"	"	"	
n-Propylbenzene	**11200**	---	761	"	"	"	"	
Styrene	ND	---	1520	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	761	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	24400	"	"	"	"	R-02
Tetrachloroethene (PCE)	ND	---	761	"	"	"	"	
Toluene	ND	---	1520	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	7610	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	7610	"	"	"	"	
1,1,1-Trichloroethane	ND	---	761	"	"	"	"	
1,1,2-Trichloroethane	ND	---	761	"	"	"	"	
Trichloroethene (TCE)	**2070**	---	761	"	"	"	"	
Trichlorofluoromethane	ND	---	3050	"	"	"	"	EST
1,2,3-Trichloropropane	ND	---	15200	"	"	"	"	R-02
1,2,4-Trimethylbenzene	**79000**	---	1520	"	"	"	"	
1,3,5-Trimethylbenzene	**5250**	---	1520	"	"	"	"	
Vinyl chloride	ND	---	761	"	"	"	"	
m,p-Xylene	**4260**	---	1520	"	"	"	"	
o-Xylene	**11000**	---	761	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*94 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB23-S1-12 (A7C0722-02)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
Acetone	ND	---	32200	ug/kg dry	1000	03/24/17 15:59	5035/8260B	
Benzene	**338**	---	322	"	"	"	"	
Bromobenzene	ND	---	805	"	"	"	"	
Bromochloromethane	ND	---	1610	"	"	"	"	
Bromodichloromethane	ND	---	3220	"	"	"	"	
Bromoform	ND	---	3220	"	"	"	"	
Bromomethane	ND	---	16100	"	"	"	"	
2-Butanone (MEK)	ND	---	16100	"	"	"	"	
n-Butylbenzene	**29700**	---	1610	"	"	"	"	M-02
sec-Butylbenzene	**34300**	---	1610	"	"	"	"	
tert-Butylbenzene	**2940**	---	1610	"	"	"	"	M-02
Carbon tetrachloride	ND	---	1610	"	"	"	"	
Chlorobenzene	ND	---	805	"	"	"	"	
Chloroethane	ND	---	16100	"	"	"	"	EST
Chloroform	ND	---	1610	"	"	"	"	
Chloromethane	ND	---	8050	"	"	"	"	
2-Chlorotoluene	ND	---	1610	"	"	"	"	
4-Chlorotoluene	ND	---	1610	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	8050	"	"	"	"	
Dibromochloromethane	ND	---	3220	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	1610	"	"	"	"	
Dibromomethane	ND	---	1610	"	"	"	"	
1,2-Dichlorobenzene	ND	---	805	"	"	"	"	
1,3-Dichlorobenzene	ND	---	805	"	"	"	"	
1,4-Dichlorobenzene	ND	---	805	"	"	"	"	
Dichlorodifluoromethane	ND	---	3220	"	"	"	"	
1,1-Dichloroethane	ND	---	805	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	805	"	"	"	"	
1,1-Dichloroethene	ND	---	805	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	805	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	805	"	"	"	"	
1,2-Dichloropropane	ND	---	805	"	"	"	"	
1,3-Dichloropropane	ND	---	1610	"	"	"	"	
2,2-Dichloropropane	ND	---	1610	"	"	"	"	
1,1-Dichloropropene	ND	---	1610	"	"	"	"	
cis-1,3-Dichloropropene	ND	---	1610	"	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB23-S1-12 (A7C0722-02)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
trans-1,3-Dichloropropene	ND	---	1610	ug/kg dry	1000	"	5035/8260B	
Ethylbenzene	**17600**	---	805	"	"	"	"	
Hexachlorobutadiene	ND	---	3220	"	"	"	"	
2-Hexanone	ND	---	16100	"	"	"	"	
Isopropylbenzene	**25900**	---	1610	"	"	"	"	
4-Isopropyltoluene	**37600**	---	1610	"	"	"	"	M-02
4-Methyl-2-pentanone (MiBK)	ND	---	16100	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1610	"	"	"	"	
Methylene chloride	ND	---	8050	"	"	"	"	
Naphthalene	**27900**	---	3220	"	"	"	"	
n-Propylbenzene	**49600**	---	805	"	"	"	"	
Styrene	ND	---	1610	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	805	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	25700	"	"	"	"	R-02
Tetrachloroethene (PCE)	**1430**	---	805	"	"	"	"	
Toluene	ND	---	1610	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	8050	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	8050	"	"	"	"	
1,1,1-Trichloroethane	ND	---	805	"	"	"	"	
1,1,2-Trichloroethane	ND	---	9650	"	"	"	"	R-02
Trichloroethene (TCE)	**12900**	---	805	"	"	"	"	
Trichlorofluoromethane	ND	---	3220	"	"	"	"	EST
1,2,3-Trichloropropane	ND	---	20900	"	"	"	"	R-02
1,2,4-Trimethylbenzene	**299000**	---	1610	"	"	"	"	
1,3,5-Trimethylbenzene	**103000**	---	1610	"	"	"	"	
Vinyl chloride	ND	---	805	"	"	"	"	
m,p-Xylene	**28500**	---	1610	"	"	"	"	
o-Xylene	**51600**	---	805	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*104 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB24-S1-4.5 (A7C0722-03)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
Acetone	ND	---	31500	ug/kg dry	1000	03/24/17 16:26	5035/8260B	
Benzene	**1020**	---	315	"	"	"	"	
Bromobenzene	ND	---	787	"	"	"	"	
Bromochloromethane	ND	---	1570	"	"	"	"	
Bromodichloromethane	ND	---	3150	"	"	"	"	
Bromoform	ND	---	3150	"	"	"	"	
Bromomethane	ND	---	15700	"	"	"	"	
2-Butanone (MEK)	ND	---	15700	"	"	"	"	
n-Butylbenzene	**41000**	---	1570	"	"	"	"	M-02
sec-Butylbenzene	**50300**	---	1570	"	"	"	"	
tert-Butylbenzene	**4670**	---	1570	"	"	"	"	M-02
Carbon tetrachloride	ND	---	1570	"	"	"	"	
Chlorobenzene	ND	---	787	"	"	"	"	
Chloroethane	ND	---	15700	"	"	"	"	EST
Chloroform	ND	---	1570	"	"	"	"	
Chloromethane	ND	---	7870	"	"	"	"	
2-Chlorotoluene	ND	---	6290	"	"	"	"	R-02
4-Chlorotoluene	ND	---	1570	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	7870	"	"	"	"	
Dibromochloromethane	ND	---	3150	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	1570	"	"	"	"	
Dibromomethane	ND	---	1570	"	"	"	"	
1,2-Dichlorobenzene	ND	---	787	"	"	"	"	
1,3-Dichlorobenzene	ND	---	787	"	"	"	"	
1,4-Dichlorobenzene	ND	---	787	"	"	"	"	
Dichlorodifluoromethane	ND	---	3150	"	"	"	"	
1,1-Dichloroethane	ND	---	787	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	787	"	"	"	"	
1,1-Dichloroethene	ND	---	787	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	787	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	787	"	"	"	"	
1,2-Dichloropropane	**1380**	---	787	"	"	"	"	
1,3-Dichloropropane	ND	---	1570	"	"	"	"	
2,2-Dichloropropane	ND	---	1570	"	"	"	"	
1,1-Dichloropropene	ND	---	1570	"	"	"	"	
cis-1,3-Dichloropropene	ND	---	1570	"	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB24-S1-4.5 (A7C0722-03)			**Matrix: Soil**		**Batch: 7030942**			**V-15**
trans-1,3-Dichloropropene	ND	---	1570	ug/kg dry	1000	"	5035/8260B	
Ethylbenzene	**8180**	---	787	"	"	"	"	
Hexachlorobutadiene	ND	---	3150	"	"	"	"	
2-Hexanone	ND	---	18900	"	"	"	"	R-02
Isopropylbenzene	**26100**	---	1570	"	"	"	"	
4-Isopropyltoluene	**58000**	---	1570	"	"	"	"	M-02
4-Methyl-2-pentanone (MiBK)	ND	---	15700	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1570	"	"	"	"	
Methylene chloride	ND	---	7870	"	"	"	"	
Naphthalene	**37400**	---	3150	"	"	"	"	
n-Propylbenzene	**59900**	---	787	"	"	"	"	
Styrene	ND	---	1570	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	787	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	47200	"	"	"	"	R-02
Tetrachloroethene (PCE)	ND	---	787	"	"	"	"	
Toluene	ND	---	1570	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	7870	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	7870	"	"	"	"	
1,1,1-Trichloroethane	ND	---	787	"	"	"	"	
1,1,2-Trichloroethane	ND	---	787	"	"	"	"	
Trichloroethene (TCE)	**4910**	---	787	"	"	"	"	
Trichlorofluoromethane	ND	---	3150	"	"	"	"	EST
1,2,3-Trichloropropane	ND	---	34600	"	"	"	"	R-02
1,3,5-Trimethylbenzene	**139000**	---	1570	"	"	"	"	
Vinyl chloride	ND	---	787	"	"	"	"	
m,p-Xylene	**15400**	---	1570	"	"	"	"	
o-Xylene	**46700**	---	787	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB24-S1-4.5 (A7C0722-03RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
1,2,4-Trimethylbenzene	**325000**	---	15700	ug/kg dry	10000	03/26/17 15:59	5035/8260B	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
SB24-S2-13.7 (A7C0722-04RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Acetone	ND	---	1650	ug/kg dry	50	03/26/17 14:38	5035/8260B	
Benzene	**98.7**	---	16.5	"	"	"	"	
Bromobenzene	ND	---	41.1	"	"	"	"	
Bromochloromethane	ND	---	82.3	"	"	"	"	
Bromodichloromethane	ND	---	165	"	"	"	"	
Bromoform	ND	---	165	"	"	"	"	
Bromomethane	ND	---	823	"	"	"	"	
2-Butanone (MEK)	ND	---	823	"	"	"	"	
n-Butylbenzene	**86.4**	---	82.3	"	"	"	"	M-02
sec-Butylbenzene	**86.4**	---	82.3	"	"	"	"	
tert-Butylbenzene	ND	---	82.3	"	"	"	"	
Carbon tetrachloride	ND	---	82.3	"	"	"	"	
Chlorobenzene	ND	---	41.1	"	"	"	"	
Chloroethane	ND	---	823	"	"	"	"	ESTa
Chloroform	ND	---	82.3	"	"	"	"	
Chloromethane	ND	---	411	"	"	"	"	
2-Chlorotoluene	ND	---	82.3	"	"	"	"	
4-Chlorotoluene	ND	---	82.3	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	411	"	"	"	"	
Dibromochloromethane	ND	---	165	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	82.3	"	"	"	"	
Dibromomethane	ND	---	82.3	"	"	"	"	
1,2-Dichlorobenzene	ND	---	41.1	"	"	"	"	
1,3-Dichlorobenzene	ND	---	41.1	"	"	"	"	
1,4-Dichlorobenzene	ND	---	41.1	"	"	"	"	
Dichlorodifluoromethane	ND	---	165	"	"	"	"	
1,1-Dichloroethane	ND	---	41.1	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	41.1	"	"	"	"	
1,1-Dichloroethene	ND	---	41.1	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	41.1	"	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB24-S2-13.7 (A7C0722-04RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
trans-1,2-Dichloroethene	ND	---	41.1	ug/kg dry	50	"	5035/8260B	
1,2-Dichloropropane	**266**	---	41.1	"	"	"	"	
1,3-Dichloropropane	ND	---	82.3	"	"	"	"	
2,2-Dichloropropane	ND	---	82.3	"	"	"	"	
1,1-Dichloropropene	ND	---	82.3	"	"	"	"	
cis-1,3-Dichloropropene	ND	---	82.3	"	"	"	"	
trans-1,3-Dichloropropene	ND	---	82.3	"	"	"	"	
Ethylbenzene	**60.0**	---	41.1	"	"	"	"	
Hexachlorobutadiene	ND	---	165	"	"	"	"	
2-Hexanone	ND	---	823	"	"	"	"	
Isopropylbenzene	ND	---	82.3	"	"	"	"	
4-Isopropyltoluene	**122**	---	82.3	"	"	"	"	M-02
4-Methyl-2-pentanone (MiBK)	ND	---	823	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	82.3	"	"	"	"	
Methylene chloride	ND	---	411	"	"	"	"	
Naphthalene	ND	---	165	"	"	"	"	
n-Propylbenzene	**116**	---	41.1	"	"	"	"	
Styrene	ND	---	82.3	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	41.1	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	247	"	"	"	"	R-02
Tetrachloroethene (PCE)	ND	---	41.1	"	"	"	"	
Toluene	ND	---	82.3	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	411	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	411	"	"	"	"	
1,1,1-Trichloroethane	ND	---	41.1	"	"	"	"	
1,1,2-Trichloroethane	ND	---	41.1	"	"	"	"	
Trichloroethene (TCE)	**95.4**	---	41.1	"	"	"	"	
Trichlorofluoromethane	ND	---	165	"	"	"	"	ESTa
1,2,3-Trichloropropane	ND	---	82.3	"	"	"	"	
1,2,4-Trimethylbenzene	**836**	---	82.3	"	"	"	"	
1,3,5-Trimethylbenzene	**290**	---	82.3	"	"	"	"	
Vinyl chloride	ND	---	41.1	"	"	"	"	
m,p-Xylene	ND	---	82.3	"	"	"	"	
o-Xylene	ND	---	41.1	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*	*Limits: 70-130 %*	1	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB24-S2-13.7 (A7C0722-04RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Surrogate: Toluene-d8 (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*	1	"	5035/8260B	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	
SB25-S1-14 (A7C0722-05RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
Acetone	ND	---	1650	ug/kg dry	50	03/26/17 15:05	5035/8260B	
Benzene	ND	---	16.5	"	"	"	"	
Bromobenzene	ND	---	41.2	"	"	"	"	
Bromochloromethane	ND	---	82.4	"	"	"	"	
Bromodichloromethane	ND	---	165	"	"	"	"	
Bromoform	ND	---	165	"	"	"	"	
Bromomethane	ND	---	824	"	"	"	"	
2-Butanone (MEK)	ND	---	824	"	"	"	"	
n-Butylbenzene	ND	---	82.4	"	"	"	"	
sec-Butylbenzene	ND	---	82.4	"	"	"	"	
tert-Butylbenzene	ND	---	82.4	"	"	"	"	
Carbon tetrachloride	ND	---	82.4	"	"	"	"	
Chlorobenzene	ND	---	41.2	"	"	"	"	
Chloroethane	ND	---	824	"	"	"	"	ESTa
Chloroform	ND	---	82.4	"	"	"	"	
Chloromethane	ND	---	412	"	"	"	"	
2-Chlorotoluene	ND	---	82.4	"	"	"	"	
4-Chlorotoluene	ND	---	82.4	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	412	"	"	"	"	
Dibromochloromethane	ND	---	165	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	82.4	"	"	"	"	
Dibromomethane	ND	---	82.4	"	"	"	"	
1,2-Dichlorobenzene	ND	---	41.2	"	"	"	"	
1,3-Dichlorobenzene	ND	---	41.2	"	"	"	"	
1,4-Dichlorobenzene	ND	---	41.2	"	"	"	"	
Dichlorodifluoromethane	ND	---	165	"	"	"	"	
1,1-Dichloroethane	ND	---	41.2	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	41.2	"	"	"	"	
1,1-Dichloroethene	ND	---	41.2	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	41.2	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	41.2	"	"	"	"	
1,2-Dichloropropane	ND	---	41.2	"	"	"	"	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB25-S1-14 (A7C0722-05RE1)			**Matrix: Soil**		**Batch: 7030985**			**V-15**
1,3-Dichloropropane	ND	---	82.4	ug/kg dry	50	"	5035/8260B	
2,2-Dichloropropane	ND	---	82.4	"	"	"	"	
1,1-Dichloropropene	ND	---	82.4	"	"	"	"	
cis-1,3-Dichloropropene	ND	---	82.4	"	"	"	"	
trans-1,3-Dichloropropene	ND	---	82.4	"	"	"	"	
Ethylbenzene	ND	---	41.2	"	"	"	"	
Hexachlorobutadiene	ND	---	165	"	"	"	"	
2-Hexanone	ND	---	824	"	"	"	"	
Isopropylbenzene	ND	---	82.4	"	"	"	"	
4-Isopropyltoluene	ND	---	82.4	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	824	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	82.4	"	"	"	"	
Methylene chloride	ND	---	412	"	"	"	"	
Naphthalene	ND	---	165	"	"	"	"	
n-Propylbenzene	ND	---	41.2	"	"	"	"	
Styrene	ND	---	82.4	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	41.2	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	82.4	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	41.2	"	"	"	"	
Toluene	ND	---	82.4	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	412	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	412	"	"	"	"	
1,1,1-Trichloroethane	ND	---	41.2	"	"	"	"	
1,1,2-Trichloroethane	ND	---	41.2	"	"	"	"	
Trichloroethene (TCE)	**47.0**	---	41.2	"	"	"	"	
Trichlorofluoromethane	ND	---	165	"	"	"	"	ESTa
1,2,3-Trichloropropane	ND	---	82.4	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	82.4	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	82.4	"	"	"	"	
Vinyl chloride	ND	---	41.2	"	"	"	"	
m,p-Xylene	ND	---	82.4	"	"	"	"	
o-Xylene	ND	---	41.2	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB22-S1-12 (A7C0722-01)			**Matrix: Soil**		**Batch: 7030961**			
% Solids	**76.2**	---	1.00	% by Weight	1	03/27/17 08:00	EPA 8000C	
SB23-S1-12 (A7C0722-02)			**Matrix: Soil**		**Batch: 7030961**			
% Solids	**77.1**	---	1.00	% by Weight	1	03/27/17 08:00	EPA 8000C	
SB24-S1-4.5 (A7C0722-03)			**Matrix: Soil**		**Batch: 7030961**			
% Solids	**76.7**	---	1.00	% by Weight	1	03/27/17 08:00	EPA 8000C	
SB24-S2-13.7 (A7C0722-04)			**Matrix: Soil**		**Batch: 7030961**			
% Solids	**75.8**	---	1.00	% by Weight	1	03/27/17 08:00	EPA 8000C	
SB25-S1-14 (A7C0722-05)			**Matrix: Soil**		**Batch: 7030961**			
% Solids	**77.0**	---	1.00	% by Weight	1	03/27/17 08:00	EPA 8000C	

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503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030942 - EPA 5035A							Soil					
Blank (7030942-BLK1)					Prepared: 03/24/17 09:00		Analyzed: 03/24/17 11:27					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*			*"*					
LCS (7030942-BS2)					Prepared: 03/24/17 09:00		Analyzed: 03/24/17 11:01					
NWTPH-Gx (MS)												
Gasoline Range Organics	26.2	---	5.00	mg/kg wet	50	25.0	---	105	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*			*"*					
Batch 7030985 - EPA 5035A							Soil					
Blank (7030985-BLK1)					Prepared: 03/26/17 09:30		Analyzed: 03/26/17 12:10					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 95 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*			*"*					
LCS (7030985-BS2)					Prepared: 03/26/17 09:30		Analyzed: 03/26/17 11:44					
NWTPH-Gx (MS)												
Gasoline Range Organics	25.7	---	5.00	mg/kg wet	50	25.0	---	103	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*			*"*					

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030942 - EPA 5035A							**Soil**					
Blank (7030942-BLK1)					Prepared: 03/24/17 09:00 Analyzed: 03/24/17 11:27							
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	6.67	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
Bromoform	ND	---	66.7	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	33.3	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	EST
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	33.3	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030942 - EPA 5035A							**Soil**					
Blank (7030942-BLK1)					Prepared: 03/24/17 09:00 Analyzed: 03/24/17 11:27							
5035/8260B												
1,1-Dichloropropene	ND	---	33.3	ug/kg wet	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	EST
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 70-130 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*		*70-130 %*				*"*			
4-Bromofluorobenzene (Surr)			*101 %*		*70-130 %*				*"*			
LCS (7030942-BS1)					Prepared: 03/24/17 09:00 Analyzed: 03/24/17 10:34							

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Kevin J. Friscia, Project Manager

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Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030942 - EPA 5035A							**Soil**					
LCS (7030942-BS1)					Prepared: 03/24/17 09:00 Analyzed: 03/24/17 10:34							
5035/8260B												
Acetone	1910	---	1000	ug/kg wet	50	2000	---	96	65-135%	---	---	
Benzene	1050	---	10.0	"	"	1000	---	105	"	---	---	
Bromobenzene	1050	---	25.0	"	"	"	---	105	"	---	---	
Bromochloromethane	1100	---	50.0	"	"	"	---	110	"	---	---	
Bromodichloromethane	972	---	100	"	"	"	---	97	"	---	---	
Bromoform	830	---	100	"	"	"	---	83	"	---	---	
Bromomethane	1190	---	500	"	"	"	---	119	"	---	---	
2-Butanone (MEK)	2000	---	500	"	"	2000	---	100	"	---	---	
n-Butylbenzene	1090	---	50.0	"	"	1000	---	109	"	---	---	
sec-Butylbenzene	1080	---	50.0	"	"	"	---	108	"	---	---	
tert-Butylbenzene	1060	---	50.0	"	"	"	---	106	"	---	---	
Carbon tetrachloride	997	---	50.0	"	"	"	---	100	"	---	---	
Chlorobenzene	1060	---	25.0	"	"	"	---	106	"	---	---	
Chloroethane	1190	---	500	"	"	"	---	119	"	---	---	EST
Chloroform	1000	---	50.0	"	"	"	---	100	"	---	---	
Chloromethane	1070	---	250	"	"	"	---	107	"	---	---	
2-Chlorotoluene	1090	---	50.0	"	"	"	---	109	"	---	---	
4-Chlorotoluene	1040	---	50.0	"	"	"	---	104	"	---	---	
1,2-Dibromo-3-chloropropane	862	---	250	"	"	"	---	86	"	---	---	
Dibromochloromethane	886	---	100	"	"	"	---	89	"	---	---	
1,2-Dibromoethane (EDB)	1090	---	50.0	"	"	"	---	109	"	---	---	
Dibromomethane	1020	---	50.0	"	"	"	---	102	"	---	---	
1,2-Dichlorobenzene	1090	---	25.0	"	"	"	---	109	"	---	---	
1,3-Dichlorobenzene	1070	---	25.0	"	"	"	---	107	"	---	---	
1,4-Dichlorobenzene	1060	---	25.0	"	"	"	---	106	"	---	---	
Dichlorodifluoromethane	993	---	100	"	"	"	---	99	"	---	---	
1,1-Dichloroethane	1080	---	25.0	"	"	"	---	108	"	---	---	
1,2-Dichloroethane (EDC)	1100	---	25.0	"	"	"	---	110	"	---	---	
1,1-Dichloroethene	1030	---	25.0	"	"	"	---	103	"	---	---	
cis-1,2-Dichloroethene	1110	---	25.0	"	"	"	---	111	"	---	---	
trans-1,2-Dichloroethene	1080	---	25.0	"	"	"	---	108	"	---	---	
1,2-Dichloropropane	1110	---	25.0	"	"	"	---	111	"	---	---	
1,3-Dichloropropane	1070	---	50.0	"	"	"	---	107	"	---	---	
2,2-Dichloropropane	1090	---	50.0	"	"	"	---	109	"	---	---	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030942 - EPA 5035A							**Soil**					
LCS (7030942-BS1)					Prepared: 03/24/17 09:00 Analyzed: 03/24/17 10:34							
5035/8260B												
1,1-Dichloropropene	1130	---	50.0	ug/kg wet	"	"	---	113	"	---	---	
cis-1,3-Dichloropropene	1070	---	50.0	"	"	"	---	107	"	---	---	
trans-1,3-Dichloropropene	1090	---	50.0	"	"	"	---	109	"	---	---	
Ethylbenzene	1040	---	25.0	"	"	"	---	104	"	---	---	
Hexachlorobutadiene	1140	---	100	"	"	"	---	114	"	---	---	
2-Hexanone	2020	---	500	"	"	2000	---	101	"	---	---	
Isopropylbenzene	1050	---	50.0	"	"	1000	---	105	"	---	---	
4-Isopropyltoluene	1050	---	50.0	"	"	"	---	105	"	---	---	
4-Methyl-2-pentanone (MiBK)	2100	---	500	"	"	2000	---	105	"	---	---	
Methyl tert-butyl ether (MTBE)	978	---	50.0	"	"	1000	---	98	"	---	---	
Methylene chloride	1030	---	250	"	"	"	---	103	"	---	---	
Naphthalene	1030	---	100	"	"	"	---	103	"	---	---	
n-Propylbenzene	1060	---	25.0	"	"	"	---	106	"	---	---	
Styrene	1040	---	50.0	"	"	"	---	104	"	---	---	
1,1,1,2-Tetrachloroethane	1070	---	25.0	"	"	"	---	107	"	---	---	
1,1,2,2-Tetrachloroethane	977	---	50.0	"	"	"	---	98	"	---	---	
Tetrachloroethene (PCE)	1100	---	25.0	"	"	"	---	110	"	---	---	
Toluene	1050	---	50.0	"	"	"	---	105	"	---	---	
1,2,3-Trichlorobenzene	1050	---	250	"	"	"	---	105	"	---	---	
1,2,4-Trichlorobenzene	1030	---	250	"	"	"	---	103	"	---	---	
1,1,1-Trichloroethane	1060	---	25.0	"	"	"	---	106	"	---	---	
1,1,2-Trichloroethane	1040	---	25.0	"	"	"	---	104	"	---	---	
Trichloroethene (TCE)	1110	---	25.0	"	"	"	---	111	"	---	---	
Trichlorofluoromethane	1890	---	100	"	"	"	---	189	"	---	---	EST
1,2,3-Trichloropropane	1120	---	50.0	"	"	"	---	112	"	---	---	
1,2,4-Trimethylbenzene	1040	---	50.0	"	"	"	---	104	"	---	---	
1,3,5-Trimethylbenzene	1030	---	50.0	"	"	"	---	103	"	---	---	
Vinyl chloride	1170	---	25.0	"	"	"	---	117	"	---	---	
m,p-Xylene	2070	---	50.0	"	"	2000	---	104	"	---	---	
o-Xylene	1060	---	25.0	"	"	1000	---	106	"	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 102 %*	*Limits: 70-130 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*101 %*	*70-130 %*	*"*
4-Bromofluorobenzene (Surr)	*98 %*	*70-130 %*	*"*

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030985 - EPA 5035A							**Soil**					
Blank (7030985-BLK1)					Prepared: 03/26/17 09:30 Analyzed: 03/26/17 12:10							
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	6.67	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
Bromoform	ND	---	66.7	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	33.3	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	ESTa
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	33.3	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030985 - EPA 5035A							**Soil**					
Blank (7030985-BLK1)					Prepared: 03/26/17 09:30 Analyzed: 03/26/17 12:10							
5035/8260B												
1,1-Dichloropropene	ND	---	33.3	ug/kg wet	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	ESTa
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 102 %* *Limits: 70-130 %* *Dilution: 1x*
Toluene-d8 (Surr) *102 %* *70-130 %* *"*
4-Bromofluorobenzene (Surr) *101 %* *70-130 %* *"*

LCS (7030985-BS1) Prepared: 03/26/17 09:30 Analyzed: 03/26/17 11:17

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030985 - EPA 5035A							**Soil**					
LCS (7030985-BS1)					Prepared: 03/26/17 09:30 Analyzed: 03/26/17 11:17							
5035/8260B												
Acetone	1650	---	1000	ug/kg wet	50	2000	---	82	65-135%	---	---	
Benzene	1010	---	10.0	"	"	1000	---	101	"	---	---	
Bromobenzene	994	---	25.0	"	"	"	---	99	"	---	---	
Bromochloromethane	1050	---	50.0	"	"	"	---	105	"	---	---	
Bromodichloromethane	996	---	100	"	"	"	---	100	"	---	---	
Bromoform	870	---	100	"	"	"	---	87	"	---	---	
Bromomethane	1310	---	500	"	"	"	---	131	"	---	---	
2-Butanone (MEK)	1710	---	500	"	"	2000	---	85	"	---	---	
n-Butylbenzene	1010	---	50.0	"	"	1000	---	101	"	---	---	
sec-Butylbenzene	1020	---	50.0	"	"	"	---	102	"	---	---	
tert-Butylbenzene	992	---	50.0	"	"	"	---	99	"	---	---	
Carbon tetrachloride	1080	---	50.0	"	"	"	---	108	"	---	---	
Chlorobenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
Chloroethane	1940	---	500	"	"	"	---	194	"	---	---	ESTa
Chloroform	984	---	50.0	"	"	"	---	98	"	---	---	
Chloromethane	1040	---	250	"	"	"	---	104	"	---	---	
2-Chlorotoluene	1030	---	50.0	"	"	"	---	103	"	---	---	
4-Chlorotoluene	989	---	50.0	"	"	"	---	99	"	---	---	
1,2-Dibromo-3-chloropropane	832	---	250	"	"	"	---	83	"	---	---	
Dibromochloromethane	906	---	100	"	"	"	---	91	"	---	---	
1,2-Dibromoethane (EDB)	1040	---	50.0	"	"	"	---	104	"	---	---	
Dibromomethane	973	---	50.0	"	"	"	---	97	"	---	---	
1,2-Dichlorobenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
1,3-Dichlorobenzene	1000	---	25.0	"	"	"	---	100	"	---	---	
1,4-Dichlorobenzene	994	---	25.0	"	"	"	---	99	"	---	---	
Dichlorodifluoromethane	1010	---	100	"	"	"	---	101	"	---	---	
1,1-Dichloroethane	1050	---	25.0	"	"	"	---	105	"	---	---	
1,2-Dichloroethane (EDC)	1040	---	25.0	"	"	"	---	104	"	---	---	
1,1-Dichloroethene	1100	---	25.0	"	"	"	---	110	"	---	---	
cis-1,2-Dichloroethene	1080	---	25.0	"	"	"	---	108	"	---	---	
trans-1,2-Dichloroethene	1040	---	25.0	"	"	"	---	104	"	---	---	
1,2-Dichloropropane	1050	---	25.0	"	"	"	---	105	"	---	---	
1,3-Dichloropropane	1000	---	50.0	"	"	"	---	100	"	---	---	
2,2-Dichloropropane	1110	---	50.0	"	"	"	---	111	"	---	---	

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Tigard, OR 97223
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Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030985 - EPA 5035A							**Soil**					
LCS (7030985-BS1)					Prepared: 03/26/17 09:30 Analyzed: 03/26/17 11:17							
5035/8260B												
1,1-Dichloropropene	1110	---	50.0	ug/kg wet	"	"	---	111	"	---	---	
cis-1,3-Dichloropropene	1040	---	50.0	"	"	"	---	104	"	---	---	
trans-1,3-Dichloropropene	1070	---	50.0	"	"	"	---	107	"	---	---	
Ethylbenzene	1000	---	25.0	"	"	"	---	100	"	---	---	
Hexachlorobutadiene	1050	---	100	"	"	"	---	105	"	---	---	
2-Hexanone	1740	---	500	"	"	2000	---	87	"	---	---	
Isopropylbenzene	1010	---	50.0	"	"	1000	---	101	"	---	---	
4-Isopropyltoluene	986	---	50.0	"	"	"	---	99	"	---	---	
4-Methyl-2-pentanone (MiBK)	1830	---	500	"	"	2000	---	91	"	---	---	
Methyl tert-butyl ether (MTBE)	921	---	50.0	"	"	1000	---	92	"	---	---	
Methylene chloride	1020	---	250	"	"	"	---	102	"	---	---	
Naphthalene	956	---	100	"	"	"	---	96	"	---	---	
n-Propylbenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
Styrene	984	---	50.0	"	"	"	---	98	"	---	---	
1,1,1,2-Tetrachloroethane	1100	---	25.0	"	"	"	---	110	"	---	---	
1,1,2,2-Tetrachloroethane	960	---	50.0	"	"	"	---	96	"	---	---	
Tetrachloroethene (PCE)	1060	---	25.0	"	"	"	---	106	"	---	---	
Toluene	1000	---	50.0	"	"	"	---	100	"	---	---	
1,2,3-Trichlorobenzene	982	---	250	"	"	"	---	98	"	---	---	
1,2,4-Trichlorobenzene	978	---	250	"	"	"	---	98	"	---	---	
1,1,1-Trichloroethane	1050	---	25.0	"	"	"	---	105	"	---	---	
1,1,2-Trichloroethane	981	---	25.0	"	"	"	---	98	"	---	---	
Trichloroethene (TCE)	1070	---	25.0	"	"	"	---	107	"	---	---	
Trichlorofluoromethane	1520	---	100	"	"	"	---	152	"	---	---	ESTa
1,2,3-Trichloropropane	1030	---	50.0	"	"	"	---	103	"	---	---	
1,2,4-Trimethylbenzene	979	---	50.0	"	"	"	---	98	"	---	---	
1,3,5-Trimethylbenzene	978	---	50.0	"	"	"	---	98	"	---	---	
Vinyl chloride	1160	---	25.0	"	"	"	---	116	"	---	---	
m,p-Xylene	1990	---	50.0	"	"	2000	---	99	"	---	---	
o-Xylene	1010	---	25.0	"	"	1000	---	101	"	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 102 %*	*Limits: 70-130 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*99 %*	*70-130 %*	*"*
4-Bromofluorobenzene (Surr)	*99 %*	*70-130 %*	*"*

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Kevin J. Friscia, Project Manager

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Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030961 - Total Solids (Dry Weight)												**Soil**

Apex Laboratories

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Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7030942							
A7C0722-01	Soil	NWTPH-Gx (MS)	03/22/17 20:00	03/23/17 16:35	5.42g/5mL	5g/5mL	0.92
Batch: 7030985							
A7C0722-02RE1	Soil	NWTPH-Gx (MS)	03/22/17 18:45	03/23/17 16:35	4.94g/5mL	5g/5mL	1.01
A7C0722-03RE1	Soil	NWTPH-Gx (MS)	03/22/17 20:29	03/23/17 16:35	5.13g/5mL	5g/5mL	0.98
A7C0722-04RE1	Soil	NWTPH-Gx (MS)	03/22/17 21:20	03/23/17 16:35	4.98g/5mL	5g/5mL	1.00
A7C0722-05RE1	Soil	NWTPH-Gx (MS)	03/22/17 22:07	03/23/17 16:35	4.81g/5mL	5g/5mL	1.04

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7030942							
A7C0722-01	Soil	5035/8260B	03/22/17 20:00	03/23/17 16:35	5.42g/5mL	5g/5mL	0.92
A7C0722-02	Soil	5035/8260B	03/22/17 18:45	03/23/17 16:35	4.94g/5mL	5g/5mL	1.01
A7C0722-03	Soil	5035/8260B	03/22/17 20:29	03/23/17 16:35	5.13g/5mL	5g/5mL	0.98
Batch: 7030985							
A7C0722-03RE1	Soil	5035/8260B	03/22/17 20:29	03/23/17 16:35	5.13g/5mL	5g/5mL	0.98
A7C0722-04RE1	Soil	5035/8260B	03/22/17 21:20	03/23/17 16:35	4.98g/5mL	5g/5mL	1.00
A7C0722-05RE1	Soil	5035/8260B	03/22/17 22:07	03/23/17 16:35	4.81g/5mL	5g/5mL	1.04

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7030961							
A7C0722-01	Soil	EPA 8000C	03/22/17 20:00	03/24/17 16:08	1N/A/1N/A	1N/A/1N/A	NA
A7C0722-02	Soil	EPA 8000C	03/22/17 18:45	03/24/17 16:08	1N/A/1N/A	1N/A/1N/A	NA
A7C0722-03	Soil	EPA 8000C	03/22/17 20:29	03/24/17 16:08	1N/A/1N/A	1N/A/1N/A	NA
A7C0722-04	Soil	EPA 8000C	03/22/17 21:20	03/24/17 16:08	1N/A/1N/A	1N/A/1N/A	NA
A7C0722-05	Soil	EPA 8000C	03/22/17 22:07	03/24/17 16:08	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

Notes and Definitions

Qualifiers:

EST	Result reported as an Estimated Value. Analyte failed initial calibration criteria
ESTa	Result reported as an Estimated Value. Analyte failed initial calibration criteria.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-08	TPH-Gx Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. See 8260B results for accurate Surrogate recovery.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Kevin J. Friscia, Project Manager

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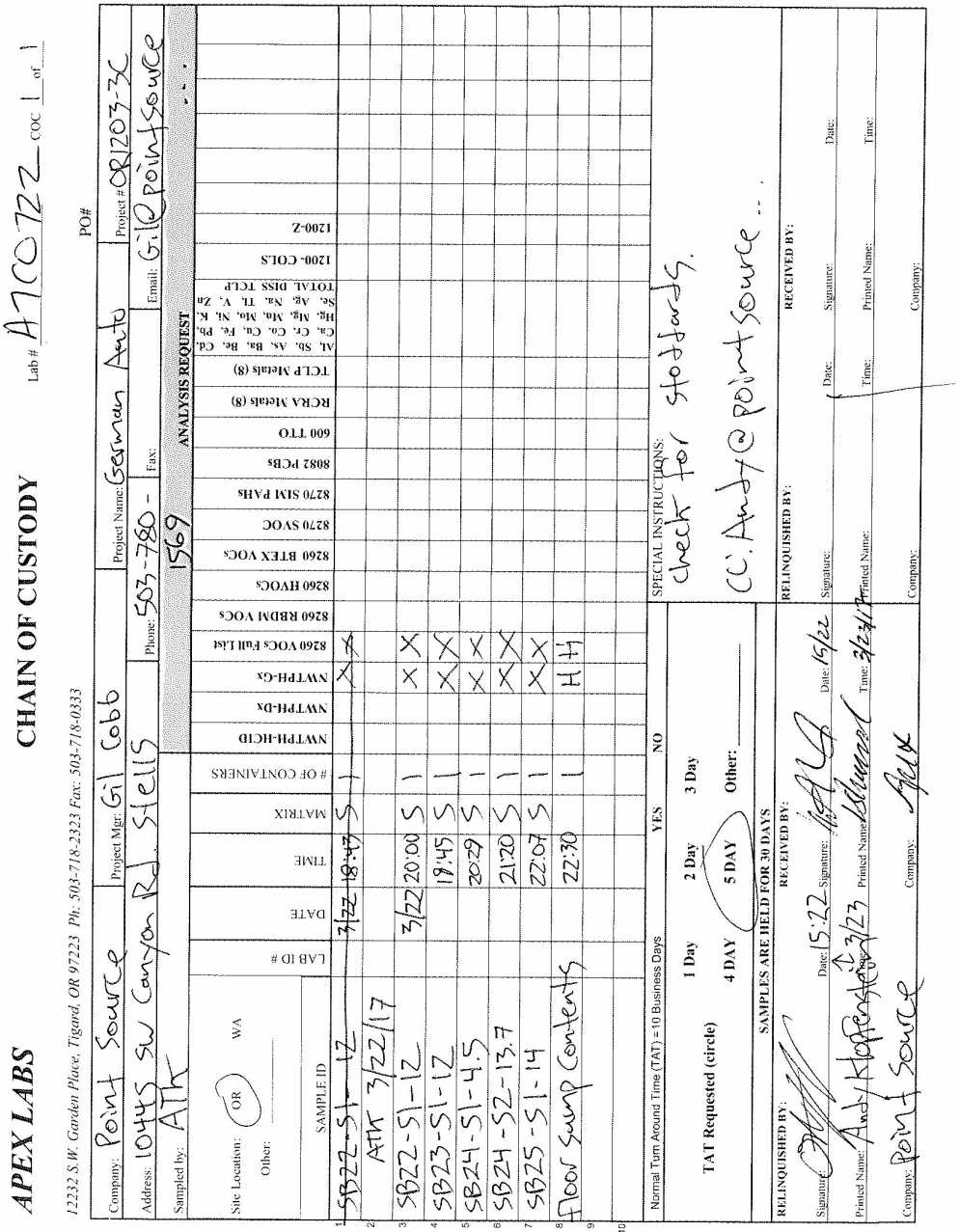
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35



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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **German Auto**	
10445 SW Canyon Road Suite 115	Project Number: OR1203-3C	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/30/17 16:35

APEX LABS COOLER RECEIPT FORM

Client: Point Source Element WO#: A7C0722

Project/Project #: German Auto /

Delivery info:

Date/Time Received: 15:22 @ 3/23/17 By: MM

Delivered by: Apex___ Client_X_ ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other___

Cooler Inspection Inspected by: MM : 3/23/17 @ 15:23

Chain of Custody Included? Yes X No___ Custody Seals? Yes___ No X

Signed/Dated by Client? Yes X No___

Signed/Dated by Apex? Yes X No___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	2.6						
Received on Ice? (Y/N)	Y						
Temp. Blanks? (Y/N)	N						
Ice Type: (Gel/Real/Other)	Real						
Condition:	Good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dot applied to out of temperature samples? Yes/No/NA

Samples Inspection: Inspected by: JS : 3/23/17 @ 1555

All Samples Intact? Yes X No___ Comments:

Bottle Labels/COCs agree? Yes X No___ Comments:

Containers/Volumes Received Appropriate for Analysis? Yes X No___ Comments:
No info on floor sump contents cont. info on bag.
No T on all cont.

Do VOA Vials have Visible Headspace? Yes___ No___ NA X

Comments

Water Samples: pH Checked and Appropriate (except VOAs): Yes___ No___ NA X

Comments:

Additional Information:

Labeled by: KJ Witness: MM Cooler Inspected by: Client See Project Contact Form: Y

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Wednesday, March 29, 2017

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: 7-Eleven / OR161202-3B

Enclosed are the results of analyses for work order A7C0451, which was received by the laboratory on 3/15/2017 at 2:05:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

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503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB19-S1-10	A7C0451-01	Soil	03/14/17 12:15	03/15/17 14:05
SB19-S2-17.5	A7C0451-02	Soil	03/14/17 12:58	03/15/17 14:05
SB20-S1-10	A7C0451-03	Soil	03/14/17 14:00	03/15/17 14:05
SB20-S2-18	A7C0451-04	Soil	03/14/17 15:00	03/15/17 14:05
SB21-S1-16	A7C0451-05	Soil	03/14/17 15:25	03/15/17 14:05

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503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB19-S1-10 (A7C0451-01)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Gasoline Range Organics	ND	---	7.77	mg/kg dry	50	03/15/17 18:53	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 109 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
SB19-S2-17.5 (A7C0451-02)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Gasoline Range Organics	ND	---	8.49	mg/kg dry	50	03/15/17 19:20	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
SB20-S1-10 (A7C0451-03)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Gasoline Range Organics	**15000**	---	324	mg/kg dry	2000	03/15/17 20:41	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 193 %*	*Limits: 50-150 %*	1	"	"	*S-08*
1,4-Difluorobenzene (Sur)			*104 %*	*Limits: 50-150 %*	"	"	"	
SB20-S2-18 (A7C0451-04)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Gasoline Range Organics	ND	---	4.73	mg/kg dry	50	03/15/17 19:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 107 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
SB21-S1-16 (A7C0451-05)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Gasoline Range Organics	ND	---	7.19	mg/kg dry	50	03/15/17 20:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Kevin J. Friscia, Project Manager

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503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB19-S1-10 (A7C0451-01)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Acetone	ND	---	1550	ug/kg dry	50	03/15/17 18:53	5035/8260B	
Benzene	ND	---	15.5	"	"	"	"	
Bromobenzene	ND	---	38.9	"	"	"	"	
Bromochloromethane	ND	---	77.7	"	"	"	"	
Bromodichloromethane	ND	---	155	"	"	"	"	
Bromoform	ND	---	155	"	"	"	"	
Bromomethane	ND	---	777	"	"	"	"	
2-Butanone (MEK)	ND	---	777	"	"	"	"	
n-Butylbenzene	ND	---	77.7	"	"	"	"	
sec-Butylbenzene	ND	---	77.7	"	"	"	"	
tert-Butylbenzene	ND	---	77.7	"	"	"	"	
Carbon tetrachloride	ND	---	77.7	"	"	"	"	
Chlorobenzene	ND	---	38.9	"	"	"	"	
Chloroethane	ND	---	777	"	"	"	"	Q-31
Chloroform	ND	---	77.7	"	"	"	"	
Chloromethane	ND	---	389	"	"	"	"	
2-Chlorotoluene	ND	---	77.7	"	"	"	"	
4-Chlorotoluene	ND	---	77.7	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	389	"	"	"	"	
Dibromochloromethane	ND	---	155	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	77.7	"	"	"	"	
Dibromomethane	ND	---	77.7	"	"	"	"	
1,2-Dichlorobenzene	ND	---	38.9	"	"	"	"	
1,3-Dichlorobenzene	ND	---	38.9	"	"	"	"	
1,4-Dichlorobenzene	ND	---	38.9	"	"	"	"	
Dichlorodifluoromethane	ND	---	155	"	"	"	"	
1,1-Dichloroethane	ND	---	38.9	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	38.9	"	"	"	"	
1,1-Dichloroethene	ND	---	38.9	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	38.9	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	38.9	"	"	"	"	
1,2-Dichloropropane	ND	---	38.9	"	"	"	"	
1,3-Dichloropropane	ND	---	77.7	"	"	"	"	
2,2-Dichloropropane	ND	---	77.7	"	"	"	"	
1,1-Dichloropropene	ND	---	77.7	"	"	"	"	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB19-S1-10 (A7C0451-01)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
cis-1,3-Dichloropropene	ND	---	77.7	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	77.7	"	"	"	"	
Ethylbenzene	ND	---	38.9	"	"	"	"	
Hexachlorobutadiene	ND	---	155	"	"	"	"	
2-Hexanone	ND	---	777	"	"	"	"	
Isopropylbenzene	ND	---	77.7	"	"	"	"	
4-Isopropyltoluene	ND	---	77.7	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	777	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	77.7	"	"	"	"	
Methylene chloride	ND	---	389	"	"	"	"	
Naphthalene	ND	---	155	"	"	"	"	
n-Propylbenzene	ND	---	38.9	"	"	"	"	
Styrene	ND	---	77.7	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	38.9	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	77.7	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	38.9	"	"	"	"	
Toluene	ND	---	77.7	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	389	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	389	"	"	"	"	
1,1,1-Trichloroethane	ND	---	38.9	"	"	"	"	
1,1,2-Trichloroethane	ND	---	38.9	"	"	"	"	
Trichloroethene (TCE)	ND	---	38.9	"	"	"	"	
Trichlorofluoromethane	ND	---	155	"	"	"	"	Q-31
1,2,3-Trichloropropane	ND	---	77.7	"	"	"	"	
1,2,4-Trimethylbenzene	**103**	---	77.7	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	77.7	"	"	"	"	
Vinyl chloride	ND	---	38.9	"	"	"	"	
m,p-Xylene	ND	---	77.7	"	"	"	"	
o-Xylene	ND	---	38.9	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 114 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	

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503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB19-S2-17.5 (A7C0451-02)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Acetone	ND	---	1700	ug/kg dry	50	03/15/17 19:20	5035/8260B	
Benzene	ND	---	17.0	"	"	"	"	
Bromobenzene	ND	---	42.4	"	"	"	"	
Bromochloromethane	ND	---	84.9	"	"	"	"	
Bromodichloromethane	ND	---	170	"	"	"	"	
Bromoform	ND	---	170	"	"	"	"	
Bromomethane	ND	---	849	"	"	"	"	
2-Butanone (MEK)	ND	---	849	"	"	"	"	
n-Butylbenzene	ND	---	84.9	"	"	"	"	
sec-Butylbenzene	ND	---	84.9	"	"	"	"	
tert-Butylbenzene	ND	---	84.9	"	"	"	"	
Carbon tetrachloride	ND	---	84.9	"	"	"	"	
Chlorobenzene	ND	---	42.4	"	"	"	"	
Chloroethane	ND	---	849	"	"	"	"	Q-31
Chloroform	ND	---	84.9	"	"	"	"	
Chloromethane	ND	---	424	"	"	"	"	
2-Chlorotoluene	ND	---	84.9	"	"	"	"	
4-Chlorotoluene	ND	---	84.9	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	424	"	"	"	"	
Dibromochloromethane	ND	---	170	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	84.9	"	"	"	"	
Dibromomethane	ND	---	84.9	"	"	"	"	
1,2-Dichlorobenzene	ND	---	42.4	"	"	"	"	
1,3-Dichlorobenzene	ND	---	42.4	"	"	"	"	
1,4-Dichlorobenzene	ND	---	42.4	"	"	"	"	
Dichlorodifluoromethane	ND	---	170	"	"	"	"	
1,1-Dichloroethane	ND	---	42.4	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	42.4	"	"	"	"	
1,1-Dichloroethene	ND	---	42.4	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	42.4	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	42.4	"	"	"	"	
1,2-Dichloropropane	ND	---	42.4	"	"	"	"	
1,3-Dichloropropane	ND	---	84.9	"	"	"	"	
2,2-Dichloropropane	ND	---	84.9	"	"	"	"	
1,1-Dichloropropene	ND	---	84.9	"	"	"	"	

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503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB19-S2-17.5 (A7C0451-02)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
cis-1,3-Dichloropropene	ND	---	84.9	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	84.9	"	"	"	"	
Ethylbenzene	ND	---	42.4	"	"	"	"	
Hexachlorobutadiene	ND	---	170	"	"	"	"	
2-Hexanone	ND	---	849	"	"	"	"	
Isopropylbenzene	ND	---	84.9	"	"	"	"	
4-Isopropyltoluene	ND	---	84.9	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	849	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	84.9	"	"	"	"	
Methylene chloride	ND	---	424	"	"	"	"	
Naphthalene	ND	---	170	"	"	"	"	
n-Propylbenzene	ND	---	42.4	"	"	"	"	
Styrene	ND	---	84.9	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	42.4	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	84.9	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	42.4	"	"	"	"	
Toluene	ND	---	84.9	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	424	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	424	"	"	"	"	
1,1,1-Trichloroethane	ND	---	42.4	"	"	"	"	
1,1,2-Trichloroethane	ND	---	42.4	"	"	"	"	
Trichloroethene (TCE)	ND	---	42.4	"	"	"	"	
Trichlorofluoromethane	ND	---	170	"	"	"	"	Q-31
1,2,3-Trichloropropane	ND	---	84.9	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	84.9	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	84.9	"	"	"	"	
Vinyl chloride	ND	---	42.4	"	"	"	"	
m,p-Xylene	ND	---	84.9	"	"	"	"	
o-Xylene	ND	---	42.4	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 115 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB20-S1-10 (A7C0451-03)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Acetone	ND	---	64900	ug/kg dry	2000	03/15/17 20:41	5035/8260B	
Benzene	ND	---	649	"	"	"	"	
Bromobenzene	ND	---	1620	"	"	"	"	
Bromochloromethane	ND	---	3240	"	"	"	"	
Bromodichloromethane	ND	---	6490	"	"	"	"	
Bromoform	ND	---	6490	"	"	"	"	
Bromomethane	ND	---	32400	"	"	"	"	
2-Butanone (MEK)	ND	---	32400	"	"	"	"	
n-Butylbenzene	**10300**	---	3240	"	"	"	"	M-02
sec-Butylbenzene	**15300**	---	3240	"	"	"	"	
tert-Butylbenzene	ND	---	3240	"	"	"	"	
Carbon tetrachloride	ND	---	3240	"	"	"	"	
Chlorobenzene	ND	---	1620	"	"	"	"	
Chloroethane	ND	---	32400	"	"	"	"	Q-31
Chloroform	ND	---	3240	"	"	"	"	
Chloromethane	ND	---	16200	"	"	"	"	
2-Chlorotoluene	ND	---	3240	"	"	"	"	
4-Chlorotoluene	ND	---	3240	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	16200	"	"	"	"	
Dibromochloromethane	ND	---	6490	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	3240	"	"	"	"	
Dibromomethane	ND	---	3240	"	"	"	"	
1,2-Dichlorobenzene	ND	---	1620	"	"	"	"	
1,3-Dichlorobenzene	ND	---	1620	"	"	"	"	
1,4-Dichlorobenzene	ND	---	1620	"	"	"	"	
Dichlorodifluoromethane	ND	---	6490	"	"	"	"	
1,1-Dichloroethane	ND	---	1620	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	1620	"	"	"	"	
1,1-Dichloroethene	ND	---	1620	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	1620	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	1620	"	"	"	"	
1,2-Dichloropropane	ND	---	1620	"	"	"	"	
1,3-Dichloropropane	ND	---	3240	"	"	"	"	
2,2-Dichloropropane	ND	---	3240	"	"	"	"	
1,1-Dichloropropene	ND	---	3240	"	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB20-S1-10 (A7C0451-03)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
cis-1,3-Dichloropropene	ND	---	3240	ug/kg dry	2000	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	3240	"	"	"	"	
Ethylbenzene	**1820**	---	1620	"	"	"	"	
Hexachlorobutadiene	ND	---	6490	"	"	"	"	
2-Hexanone	ND	---	32400	"	"	"	"	
Isopropylbenzene	**5320**	---	3240	"	"	"	"	
4-Isopropyltoluene	**12700**	---	3240	"	"	"	"	M-02
4-Methyl-2-pentanone (MiBK)	ND	---	32400	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	3240	"	"	"	"	
Methylene chloride	ND	---	16200	"	"	"	"	
Naphthalene	ND	---	6490	"	"	"	"	
n-Propylbenzene	**14600**	---	1620	"	"	"	"	
Styrene	ND	---	3240	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	1620	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	19500	"	"	"	"	R-02
Tetrachloroethene (PCE)	ND	---	1620	"	"	"	"	
Toluene	ND	---	3240	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	16200	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	16200	"	"	"	"	
1,1,1-Trichloroethane	ND	---	1620	"	"	"	"	
1,1,2-Trichloroethane	ND	---	1620	"	"	"	"	
Trichloroethene (TCE)	ND	---	1620	"	"	"	"	
Trichlorofluoromethane	ND	---	6490	"	"	"	"	Q-31
1,2,3-Trichloropropane	ND	---	22700	"	"	"	"	R-02
1,2,4-Trimethylbenzene	**99600**	---	3240	"	"	"	"	
1,3,5-Trimethylbenzene	**33700**	---	3240	"	"	"	"	
Vinyl chloride	ND	---	1620	"	"	"	"	
m,p-Xylene	**14300**	---	3240	"	"	"	"	
o-Xylene	**4310**	---	1620	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 116 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*94 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB20-S2-18 (A7C0451-04)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Acetone	ND	---	946	ug/kg dry	50	03/15/17 19:47	5035/8260B	
Benzene	ND	---	9.46	"	"	"	"	
Bromobenzene	ND	---	23.7	"	"	"	"	
Bromochloromethane	ND	---	47.3	"	"	"	"	
Bromodichloromethane	ND	---	94.6	"	"	"	"	
Bromoform	ND	---	94.6	"	"	"	"	
Bromomethane	ND	---	473	"	"	"	"	
2-Butanone (MEK)	ND	---	473	"	"	"	"	
n-Butylbenzene	ND	---	47.3	"	"	"	"	
sec-Butylbenzene	ND	---	47.3	"	"	"	"	
tert-Butylbenzene	ND	---	47.3	"	"	"	"	
Carbon tetrachloride	ND	---	47.3	"	"	"	"	
Chlorobenzene	ND	---	23.7	"	"	"	"	
Chloroethane	ND	---	473	"	"	"	"	Q-31
Chloroform	ND	---	47.3	"	"	"	"	
Chloromethane	ND	---	237	"	"	"	"	
2-Chlorotoluene	ND	---	47.3	"	"	"	"	
4-Chlorotoluene	ND	---	47.3	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	237	"	"	"	"	
Dibromochloromethane	ND	---	94.6	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	47.3	"	"	"	"	
Dibromomethane	ND	---	47.3	"	"	"	"	
1,2-Dichlorobenzene	ND	---	23.7	"	"	"	"	
1,3-Dichlorobenzene	ND	---	23.7	"	"	"	"	
1,4-Dichlorobenzene	ND	---	23.7	"	"	"	"	
Dichlorodifluoromethane	ND	---	94.6	"	"	"	"	
1,1-Dichloroethane	ND	---	23.7	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	23.7	"	"	"	"	
1,1-Dichloroethene	ND	---	23.7	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	23.7	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	23.7	"	"	"	"	
1,2-Dichloropropane	ND	---	23.7	"	"	"	"	
1,3-Dichloropropane	ND	---	47.3	"	"	"	"	
2,2-Dichloropropane	ND	---	47.3	"	"	"	"	
1,1-Dichloropropene	ND	---	47.3	"	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB20-S2-18 (A7C0451-04)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
cis-1,3-Dichloropropene	ND	---	47.3	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	47.3	"	"	"	"	
Ethylbenzene	ND	---	23.7	"	"	"	"	
Hexachlorobutadiene	ND	---	94.6	"	"	"	"	
2-Hexanone	ND	---	473	"	"	"	"	
Isopropylbenzene	ND	---	47.3	"	"	"	"	
4-Isopropyltoluene	ND	---	47.3	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	473	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	47.3	"	"	"	"	
Methylene chloride	ND	---	237	"	"	"	"	
Naphthalene	ND	---	94.6	"	"	"	"	
n-Propylbenzene	ND	---	23.7	"	"	"	"	
Styrene	ND	---	47.3	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	23.7	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	47.3	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	23.7	"	"	"	"	
Toluene	ND	---	47.3	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	237	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	237	"	"	"	"	
1,1,1-Trichloroethane	ND	---	23.7	"	"	"	"	
1,1,2-Trichloroethane	ND	---	23.7	"	"	"	"	
Trichloroethene (TCE)	ND	---	23.7	"	"	"	"	
Trichlorofluoromethane	ND	---	94.6	"	"	"	"	Q-31
1,2,3-Trichloropropane	ND	---	47.3	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	47.3	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	47.3	"	"	"	"	
Vinyl chloride	ND	---	23.7	"	"	"	"	
m,p-Xylene	ND	---	47.3	"	"	"	"	
o-Xylene	ND	---	23.7	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 114 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB21-S1-16 (A7C0451-05)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
Acetone	ND	---	1440	ug/kg dry	50	03/15/17 20:14	5035/8260B	
Benzene	ND	---	14.4	"	"	"	"	
Bromobenzene	ND	---	36.0	"	"	"	"	
Bromochloromethane	ND	---	71.9	"	"	"	"	
Bromodichloromethane	ND	---	144	"	"	"	"	
Bromoform	ND	---	144	"	"	"	"	
Bromomethane	ND	---	719	"	"	"	"	
2-Butanone (MEK)	ND	---	719	"	"	"	"	
n-Butylbenzene	ND	---	71.9	"	"	"	"	
sec-Butylbenzene	ND	---	71.9	"	"	"	"	
tert-Butylbenzene	ND	---	71.9	"	"	"	"	
Carbon tetrachloride	ND	---	71.9	"	"	"	"	
Chlorobenzene	ND	---	36.0	"	"	"	"	
Chloroethane	ND	---	719	"	"	"	"	Q-31
Chloroform	ND	---	71.9	"	"	"	"	
Chloromethane	ND	---	360	"	"	"	"	
2-Chlorotoluene	ND	---	71.9	"	"	"	"	
4-Chlorotoluene	ND	---	71.9	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	360	"	"	"	"	
Dibromochloromethane	ND	---	144	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	71.9	"	"	"	"	
Dibromomethane	ND	---	71.9	"	"	"	"	
1,2-Dichlorobenzene	ND	---	36.0	"	"	"	"	
1,3-Dichlorobenzene	ND	---	36.0	"	"	"	"	
1,4-Dichlorobenzene	ND	---	36.0	"	"	"	"	
Dichlorodifluoromethane	ND	---	144	"	"	"	"	
1,1-Dichloroethane	ND	---	36.0	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	36.0	"	"	"	"	
1,1-Dichloroethene	ND	---	36.0	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	36.0	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	36.0	"	"	"	"	
1,2-Dichloropropane	ND	---	36.0	"	"	"	"	
1,3-Dichloropropane	ND	---	71.9	"	"	"	"	
2,2-Dichloropropane	ND	---	71.9	"	"	"	"	
1,1-Dichloropropene	ND	---	71.9	"	"	"	"	

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB21-S1-16 (A7C0451-05)			**Matrix: Soil**		**Batch: 7030628**			**V-15**
cis-1,3-Dichloropropene	ND	---	71.9	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	71.9	"	"	"	"	
Ethylbenzene	ND	---	36.0	"	"	"	"	
Hexachlorobutadiene	ND	---	144	"	"	"	"	
2-Hexanone	ND	---	719	"	"	"	"	
Isopropylbenzene	ND	---	71.9	"	"	"	"	
4-Isopropyltoluene	ND	---	71.9	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	719	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	71.9	"	"	"	"	
Methylene chloride	ND	---	360	"	"	"	"	
Naphthalene	ND	---	144	"	"	"	"	
n-Propylbenzene	ND	---	36.0	"	"	"	"	
Styrene	ND	---	71.9	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	36.0	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	71.9	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	36.0	"	"	"	"	
Toluene	ND	---	71.9	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	360	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	360	"	"	"	"	
1,1,1-Trichloroethane	ND	---	36.0	"	"	"	"	
1,1,2-Trichloroethane	ND	---	36.0	"	"	"	"	
Trichloroethene (TCE)	ND	---	36.0	"	"	"	"	
Trichlorofluoromethane	ND	---	144	"	"	"	"	Q-31
1,2,3-Trichloropropane	ND	---	71.9	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	71.9	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	71.9	"	"	"	"	
Vinyl chloride	ND	---	36.0	"	"	"	"	
m,p-Xylene	ND	---	71.9	"	"	"	"	
o-Xylene	ND	---	36.0	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 114 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	

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Kevin J. Friscia, Project Manager

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB19-S1-10 (A7C0451-01)			**Matrix: Soil**		**Batch: 7030630**			
% Solids	**73.7**	---	1.00	% by Weight	1	03/16/17 07:28	EPA 8000C	
SB19-S2-17.5 (A7C0451-02)			**Matrix: Soil**		**Batch: 7030630**			
% Solids	**73.9**	---	1.00	% by Weight	1	03/16/17 07:28	EPA 8000C	
SB20-S1-10 (A7C0451-03)			**Matrix: Soil**		**Batch: 7030630**			
% Solids	**73.7**	---	1.00	% by Weight	1	03/16/17 07:28	EPA 8000C	
SB20-S2-18 (A7C0451-04)			**Matrix: Soil**		**Batch: 7030630**			
% Solids	**94.7**	---	1.00	% by Weight	1	03/16/17 07:28	EPA 8000C	
SB21-S1-16 (A7C0451-05)			**Matrix: Soil**		**Batch: 7030630**			
% Solids	**76.6**	---	1.00	% by Weight	1	03/16/17 07:28	EPA 8000C	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030628 - EPA 5035A								Soil				
Blank (7030628-BLK1)					Prepared: 03/15/17 09:00 Analyzed: 03/15/17 12:09							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*100 %*		*50-150 %*				*"*			
LCS (7030628-BS2)					Prepared: 03/15/17 09:00 Analyzed: 03/15/17 11:42							
NWTPH-Gx (MS)												
Gasoline Range Organics	27.7	---	5.00	mg/kg wet	50	25.0	---	111	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 103 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*101 %*		*50-150 %*				*"*			

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030628 - EPA 5035A							**Soil**					
Blank (7030628-BLK1)					Prepared: 03/15/17 09:00 Analyzed: 03/15/17 12:09							
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	6.67	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
Bromoform	ND	---	66.7	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	33.3	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	Q-31
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	33.3	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030628 - EPA 5035A							**Soil**					
Blank (7030628-BLK1)					Prepared: 03/15/17 09:00 Analyzed: 03/15/17 12:09							
5035/8260B												
1,1-Dichloropropene	ND	---	33.3	ug/kg wet	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	Q-31
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 116 %* *Limits: 70-130 %* *Dilution: 1x*
Toluene-d8 (Surr) *98 %* *70-130 %* *"*
4-Bromofluorobenzene (Surr) *96 %* *70-130 %* *"*

LCS (7030628-BS1) Prepared: 03/15/17 09:00 Analyzed: 03/15/17 11:15

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030628 - EPA 5035A							Soil					
LCS (7030628-BS1)					Prepared: 03/15/17 09:00 Analyzed: 03/15/17 11:15							
5035/8260B												
Acetone	2270	---	1000	ug/kg wet	50	2000	---	113	65-135%	---	---	
Benzene	1330	---	10.0	"	"	1000	---	133	"	---	---	
Bromobenzene	1100	---	25.0	"	"	"	---	110	"	---	---	
Bromochloromethane	1130	---	50.0	"	"	"	---	113	"	---	---	
Bromodichloromethane	1240	---	100	"	"	"	---	124	"	---	---	
Bromoform	1280	---	100	"	"	"	---	128	"	---	---	
Bromomethane	1210	---	500	"	"	"	---	121	"	---	---	
2-Butanone (MEK)	2180	---	500	"	"	2000	---	109	"	---	---	
n-Butylbenzene	1130	---	50.0	"	"	1000	---	113	"	---	---	
sec-Butylbenzene	1120	---	50.0	"	"	"	---	112	"	---	---	
tert-Butylbenzene	1040	---	50.0	"	"	"	---	104	"	---	---	
Carbon tetrachloride	1270	---	50.0	"	"	"	---	127	"	---	---	
Chlorobenzene	1110	---	25.0	"	"	"	---	111	"	---	---	
Chloroethane	598	---	500	"	"	"	---	60	"	---	---	Q-31
Chloroform	1220	---	50.0	"	"	"	---	122	"	---	---	
Chloromethane	912	---	250	"	"	"	---	91	"	---	---	
2-Chlorotoluene	1090	---	50.0	"	"	"	---	109	"	---	---	
4-Chlorotoluene	1070	---	50.0	"	"	"	---	107	"	---	---	
1,2-Dibromo-3-chloropropane	1240	---	250	"	"	"	---	124	"	---	---	
Dibromochloromethane	1190	---	100	"	"	"	---	119	"	---	---	
1,2-Dibromoethane (EDB)	1150	---	50.0	"	"	"	---	115	"	---	---	
Dibromomethane	1200	---	50.0	"	"	"	---	120	"	---	---	
1,2-Dichlorobenzene	1150	---	25.0	"	"	"	---	115	"	---	---	
1,3-Dichlorobenzene	1120	---	25.0	"	"	"	---	112	"	---	---	
1,4-Dichlorobenzene	1110	---	25.0	"	"	"	---	111	"	---	---	
Dichlorodifluoromethane	773	---	100	"	"	"	---	77	"	---	---	
1,1-Dichloroethane	1140	---	25.0	"	"	"	---	114	"	---	---	
1,2-Dichloroethane (EDC)	1090	---	25.0	"	"	"	---	109	"	---	---	
1,1-Dichloroethene	1050	---	25.0	"	"	"	---	105	"	---	---	
cis-1,2-Dichloroethene	1170	---	25.0	"	"	"	---	117	"	---	---	
trans-1,2-Dichloroethene	1140	---	25.0	"	"	"	---	114	"	---	---	
1,2-Dichloropropane	1240	---	25.0	"	"	"	---	124	"	---	---	
1,3-Dichloropropane	1120	---	50.0	"	"	"	---	112	"	---	---	
2,2-Dichloropropane	1090	---	50.0	"	"	"	---	109	"	---	---	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030628 - EPA 5035A							**Soil**					
LCS (7030628-BS1)					Prepared: 03/15/17 09:00 Analyzed: 03/15/17 11:15							
5035/8260B												
1,1-Dichloropropene	1230	---	50.0	ug/kg wet	"	"	---	123	"	---	---	
cis-1,3-Dichloropropene	980	---	50.0	"	"	"	---	98	"	---	---	
trans-1,3-Dichloropropene	1020	---	50.0	"	"	"	---	102	"	---	---	
Ethylbenzene	1090	---	25.0	"	"	"	---	109	"	---	---	
Hexachlorobutadiene	1130	---	100	"	"	"	---	113	"	---	---	
2-Hexanone	1960	---	500	"	"	2000	---	98	"	---	---	
Isopropylbenzene	1120	---	50.0	"	"	1000	---	112	"	---	---	
4-Isopropyltoluene	1120	---	50.0	"	"	"	---	112	"	---	---	
4-Methyl-2-pentanone (MiBK)	1870	---	500	"	"	2000	---	94	"	---	---	
Methyl tert-butyl ether (MTBE)	1100	---	50.0	"	"	1000	---	110	"	---	---	
Methylene chloride	1320	---	250	"	"	"	---	132	"	---	---	
Naphthalene	1310	---	100	"	"	"	---	131	"	---	---	
n-Propylbenzene	1140	---	25.0	"	"	"	---	114	"	---	---	
Styrene	1130	---	50.0	"	"	"	---	113	"	---	---	
1,1,1,2-Tetrachloroethane	1170	---	25.0	"	"	"	---	117	"	---	---	
1,1,2,2-Tetrachloroethane	1290	---	50.0	"	"	"	---	129	"	---	---	
Tetrachloroethene (PCE)	1100	---	25.0	"	"	"	---	110	"	---	---	
Toluene	1120	---	50.0	"	"	"	---	112	"	---	---	
1,2,3-Trichlorobenzene	1180	---	250	"	"	"	---	118	"	---	---	
1,2,4-Trichlorobenzene	1140	---	250	"	"	"	---	114	"	---	---	
1,1,1-Trichloroethane	1180	---	25.0	"	"	"	---	118	"	---	---	
1,1,2-Trichloroethane	1160	---	25.0	"	"	"	---	116	"	---	---	
Trichloroethene (TCE)	1250	---	25.0	"	"	"	---	125	"	---	---	
Trichlorofluoromethane	600	---	100	"	"	"	---	60	"	---	---	Q-31
1,2,3-Trichloropropane	1170	---	50.0	"	"	"	---	117	"	---	---	
1,2,4-Trimethylbenzene	1090	---	50.0	"	"	"	---	109	"	---	---	
1,3,5-Trimethylbenzene	1110	---	50.0	"	"	"	---	111	"	---	---	
Vinyl chloride	971	---	25.0	"	"	"	---	97	"	---	---	
m,p-Xylene	2180	---	50.0	"	"	2000	---	109	"	---	---	
o-Xylene	1090	---	25.0	"	"	1000	---	109	"	---	---	

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 114 %* *Limits: 70-130 %* *Dilution: 1x*
Toluene-d8 (Surr) *99 %* *70-130 %* *"*
4-Bromofluorobenzene (Surr) *95 %* *70-130 %* *"*

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Tigard, OR 97223
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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030630 - Total Solids (Dry Weight)												**Soil**
Duplicate (7030630-DUP3)						Prepared: 03/15/17 18:09		Analyzed: 03/16/17 07:28				
QC Source Sample: SB21-S1-16 (A7C0451-05)												
EPA 8000C												
% Solids	**76.4**	---	1.00	% by Weight	1	---	76.6	---	---	0.3	10%	

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7030628							
A7C0451-01	Soil	NWTPH-Gx (MS)	03/14/17 12:15	03/15/17 16:16	5.66g/5mL	5g/5mL	0.88
A7C0451-02	Soil	NWTPH-Gx (MS)	03/14/17 12:58	03/15/17 16:16	5.04g/5mL	5g/5mL	0.99
A7C0451-03	Soil	NWTPH-Gx (MS)	03/14/17 14:00	03/15/17 16:16	5.36g/5mL	5g/5mL	0.93
A7C0451-04	Soil	NWTPH-Gx (MS)	03/14/17 15:00	03/15/17 16:16	5.93g/5mL	5g/5mL	0.84
A7C0451-05	Soil	NWTPH-Gx (MS)	03/14/17 15:25	03/15/17 16:16	5.76g/5mL	5g/5mL	0.87

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7030628							
A7C0451-01	Soil	5035/8260B	03/14/17 12:15	03/15/17 16:16	5.66g/5mL	5g/5mL	0.88
A7C0451-02	Soil	5035/8260B	03/14/17 12:58	03/15/17 16:16	5.04g/5mL	5g/5mL	0.99
A7C0451-03	Soil	5035/8260B	03/14/17 14:00	03/15/17 16:16	5.36g/5mL	5g/5mL	0.93
A7C0451-04	Soil	5035/8260B	03/14/17 15:00	03/15/17 16:16	5.93g/5mL	5g/5mL	0.84
A7C0451-05	Soil	5035/8260B	03/14/17 15:25	03/15/17 16:16	5.76g/5mL	5g/5mL	0.87

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7030630							
A7C0451-01	Soil	EPA 8000C	03/14/17 12:15	03/15/17 18:09	1N/A/1N/A	1N/A/1N/A	NA
A7C0451-02	Soil	EPA 8000C	03/14/17 12:58	03/15/17 18:09	1N/A/1N/A	1N/A/1N/A	NA
A7C0451-03	Soil	EPA 8000C	03/14/17 14:00	03/15/17 18:09	1N/A/1N/A	1N/A/1N/A	NA
A7C0451-04	Soil	EPA 8000C	03/14/17 15:00	03/15/17 18:09	1N/A/1N/A	1N/A/1N/A	NA
A7C0451-05	Soil	EPA 8000C	03/14/17 15:25	03/15/17 18:09	1N/A/1N/A	1N/A/1N/A	NA

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503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

Notes and Definitions

Qualifiers:

M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-08	TPH-Gx Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. See 8260B results for accurate Surrogate recovery.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Kevin J. Friscia, Project Manager

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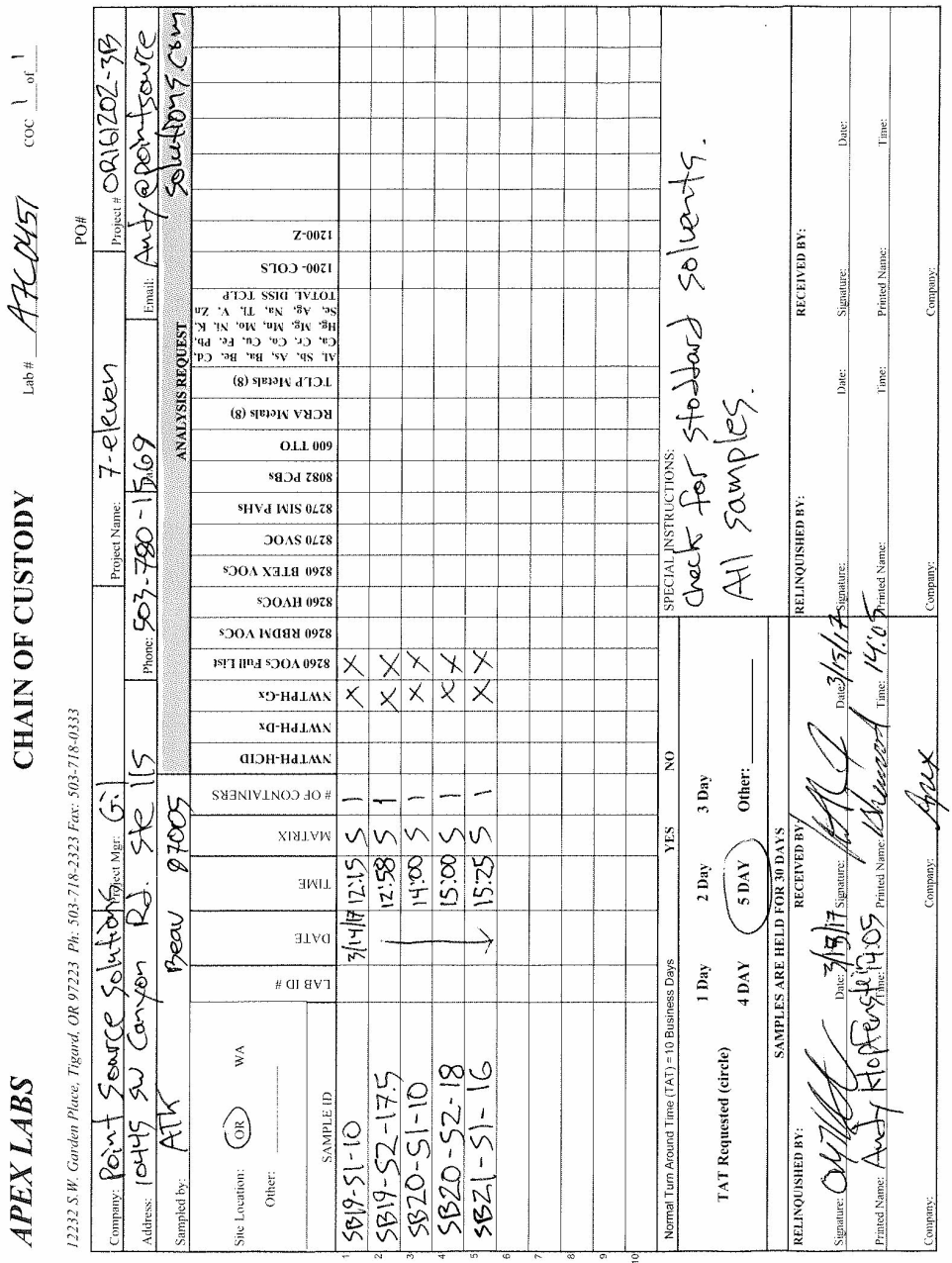
Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01



APEX LABS — **CHAIN OF CUSTODY** — Lab # ATL0457 — COC 1 of 1

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

PO#

Company: Point Source Solutions — Project Mgr: Gil — Project Name: 7-eleven — Project # OR161202-3B

Address: 10445 SW Canyon Rd. Ste 115 — Phone: 503-780-1569 — Email: Andy@pointsource solutions.com

Sampled by: ATK Beav 97005

SAMPLE ID	Site Location: OR / WA / Other:	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	ANALYSIS REQUEST: NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1 SB19-S1-10			3/14/17	12:15	S	1			X	X												
2 SB19-S2-17.5				12:58	S	1			X	X												
3 SB20-S1-10				14:00	S	1			X	X												
4 SB20-S2-18				15:00	S	1			X	X												
5 SB21-S1-16				15:25	S	1			X	X												
6																						
7																						
8																						
9																						
10																						

Normal Turn Around Time (TAT) = 10 Business Days — YES — NO

SPECIAL INSTRUCTIONS: check for stoddard solvents. All samples.

TAT Requested (circle): 1 Day — 2 Day — 3 Day — 4 DAY — 5 DAY — Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Printed Name: Andy Hoffenstein	Printed Name:	Printed Name:	Printed Name:
Date: 3/15/17	Date: 3/15/17	Date:	Date:
Time: 14:05	Time: 14:05	Time:	Time:
Company: Apex	Company: Apex	Company:	Company:

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Labs

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: OR161202-3B	**Reported:**
Beaverton, OR 97005	Project Manager: Gil Cobb	03/29/17 08:01

APEX LABS COOLER RECEIPT FORM

Client: Point Source Solutions Element WO#: A7 C0457

Project/Project #: 7-Eleven

Delivery info:

Date/Time Received: 3/15/17 @ 14:05 By: MS

Delivered by: Apex___ Client X ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other___

Cooler Inspection Inspected by: MS : 3/15/17 @ 14:08

Chain of Custody Included? Yes X No___ Custody Seals? Yes___ No X

Signed/Dated by Client? Yes X No___

Signed/Dated by Apex? Yes X No___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	4.8						
Received on Ice? (Y/N)							
Temp. Blanks? (Y/N)							
Ice Type: (Gel/Real/Other)							
Condition:	Good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dot applied to out of temperature samples? Yes/No/NA

Samples Inspection: Inspected by: MS : 3/15/17 @ 14:13

All Samples Intact? Yes X No___ Comments:

Bottle Labels/COCs agree? Yes X No___ Comments: No T on cont

Containers/Volumes Received Appropriate for Analysis? Yes X No___ Comments:

Do VOA Vials have Visible Headspace? Yes___ No___ NA X

Comments

Water Samples: pH Checked and Appropriate (except VOAs): Yes___ No___ NA X

Comments:

Additional Information:

Labeled by: MS Witness: KM Cooler Inspected by: Client See Project Contact Form: Y

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Thursday, June 14, 2018

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: A8E0891 - 7-Eleven - OR161202-3B

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A8E0891, which was received by the laboratory on 5/31/2018 at 8:26:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB28-S1-30	A8E0891-01	Soil	05/30/18 13:32	05/31/18 08:26
SB29-S1-31	A8E0891-02	Soil	05/30/18 14:55	05/31/18 08:26
W26	A8E0891-03	Water	05/30/18 10:00	05/31/18 08:26
W27	A8E0891-04	Water	05/30/18 12:00	05/31/18 08:26
W29	A8E0891-05	Water	05/30/18 15:14	05/31/18 08:26

Apex Laboratories

Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB28-S1-30 (A8E0891-01RE1)			**Matrix: Soil**			**Batch: 8060348**		**V-15**
Gasoline Range Organics	**2060**	---	71.5	mg/kg dry	500	06/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 189 %*	*Limits: 50-150 %*	*1*	*06/04/18*	*NWTPH-Gx (MS)*	*S-02*
1,4-Difluorobenzene (Sur)			*98 %*	*50-150 %*	*1*	*06/04/18*	*NWTPH-Gx (MS)*	
W26 (A8E0891-03RE1)			**Matrix: Water**			**Batch: 8060310**		
Gasoline Range Organics	**1.46**	---	0.100	mg/L	1	06/01/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 134 %*	*Limits: 50-150 %*	*1*	*06/01/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*115 %*	*50-150 %*	*1*	*06/01/18*	*NWTPH-Gx (MS)*	
W27 (A8E0891-04RE1)			**Matrix: Water**			**Batch: 8060310**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	06/01/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 121 %*	*Limits: 50-150 %*	*1*	*06/01/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*116 %*	*50-150 %*	*1*	*06/01/18*	*NWTPH-Gx (MS)*	
W29 (A8E0891-05RE1)			**Matrix: Water**			**Batch: 8060310**		
Gasoline Range Organics	**0.833**	---	0.100	mg/L	1	06/01/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 131 %*	*Limits: 50-150 %*	*1*	*06/01/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*116 %*	*50-150 %*	*1*	*06/01/18*	*NWTPH-Gx (MS)*	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB28-S1-30 (A8E0891-01)			**Matrix: Soil**			**Batch: 8060295**		**V-15**
Acetone	ND	---	1430	ug/kg dry	50	06/01/18	5035A/8260C	
Acrylonitrile	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	
Benzene	ND	---	14.3	ug/kg dry	50	06/01/18	5035A/8260C	
Bromobenzene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Bromochloromethane	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Bromodichloromethane	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Bromoform	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	
Bromomethane	ND	---	715	ug/kg dry	50	06/01/18	5035A/8260C	
2-Butanone (MEK)	ND	---	715	ug/kg dry	50	06/01/18	5035A/8260C	
n-Butylbenzene	**477**	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
sec-Butylbenzene	**1470**	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
tert-Butylbenzene	ND	---	215	ug/kg dry	50	06/01/18	5035A/8260C	R-02
Carbon disulfide	ND	---	715	ug/kg dry	50	06/01/18	5035A/8260C	
Carbon tetrachloride	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Chlorobenzene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Chloroethane	ND	---	715	ug/kg dry	50	06/01/18	5035A/8260C	EST
Chloroform	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Chloromethane	ND	---	358	ug/kg dry	50	06/01/18	5035A/8260C	
2-Chlorotoluene	ND	---	215	ug/kg dry	50	06/01/18	5035A/8260C	R-02
4-Chlorotoluene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Dibromochloromethane	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	358	ug/kg dry	50	06/01/18	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Dibromomethane	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
1,2-Dichlorobenzene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,3-Dichlorobenzene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,4-Dichlorobenzene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Dichlorodifluoromethane	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	
1,1-Dichloroethane	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,1-Dichloroethene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,2-Dichloropropane	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,3-Dichloropropane	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
2,2-Dichloropropane	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
1,1-Dichloropropene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB28-S1-30 (A8E0891-01)			**Matrix: Soil**			**Batch: 8060295**		**V-15**
Ethylbenzene	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Hexachlorobutadiene	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	
2-Hexanone	ND	---	715	ug/kg dry	50	06/01/18	5035A/8260C	
Isopropylbenzene	**308**	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
4-Isopropyltoluene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Methylene chloride	ND	---	358	ug/kg dry	50	06/01/18	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	1070	ug/kg dry	50	06/01/18	5035A/8260C	R-02
Methyl tert-butyl ether (MTBE)	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Naphthalene	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	
n-Propylbenzene	**960**	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Styrene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	1790	ug/kg dry	50	06/01/18	5035A/8260C	R-02
Tetrachloroethene (PCE)	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Toluene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	358	ug/kg dry	50	06/01/18	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	358	ug/kg dry	50	06/01/18	5035A/8260C	
1,1,1-Trichloroethane	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
1,1,2-Trichloroethane	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Trichloroethene (TCE)	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
Trichlorofluoromethane	ND	---	143	ug/kg dry	50	06/01/18	5035A/8260C	EST
1,2,3-Trichloropropane	ND	---	2860	ug/kg dry	50	06/01/18	5035A/8260C	R-02
1,2,4-Trimethylbenzene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
Vinyl chloride	ND	---	35.8	ug/kg dry	50	06/01/18	5035A/8260C	
m,p-Xylene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	
o-Xylene	ND	---	71.5	ug/kg dry	50	06/01/18	5035A/8260C	R-02
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*06/01/18*	*5035A/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*06/01/18*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*105 %*	*80-120 %*	*1*	*06/01/18*	*5035A/8260C*	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

12232 S.W. Garden Place
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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
W26 (A8E0891-03RE1)			**Matrix: Water**			**Batch: 8060310**		
Acetone	ND	---	20.0	ug/L	1	06/01/18	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	06/01/18	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
sec-Butylbenzene	**3.37**	---	1.00	ug/L	1	06/01/18	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Chloroethane	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Chloroform	**4.33**	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichloropropane	**0.814**	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
W26 (A8E0891-03RE1)			**Matrix: Water**			**Batch: 8060310**		
Ethylbenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Methylene chloride	ND	---	3.00	ug/L	1	06/01/18	EPA 8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
n-Propylbenzene	**1.30**	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Tetrachloroethene (PCE)	**0.428**	---	0.400	ug/L	1	06/01/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.30	ug/L	1	06/01/18	EPA 8260C	R-02
1,2,4-Trimethylbenzene	**6.94**	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,3,5-Trimethylbenzene	**3.52**	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
o-Xylene	**0.887**	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits:*	*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*88 %*		*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
W27 (A8E0891-04RE1)			**Matrix: Water**			**Batch: 8060310**		
Acetone	ND	---	20.0	ug/L	1	06/01/18	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	06/01/18	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
W27 (A8E0891-04RE1)			**Matrix: Water**			**Batch: 8060310**		
Bromoform	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Chloroethane	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Chloroform	**4.25**	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Methylene chloride	ND	---	3.00	ug/L	1	06/01/18	EPA 8260C	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
W27 (A8E0891-04RE1)			**Matrix: Water**			**Batch: 8060310**		
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Tetrachloroethene (PCE)	**0.863**	---	0.400	ug/L	1	06/01/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*95 %*		*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
W29 (A8E0891-05RE1)			**Matrix: Water**			**Batch: 8060310**		
Acetone	ND	---	20.0	ug/L	1	06/01/18	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	06/01/18	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
W29 (A8E0891-05RE1)			**Matrix: Water**			**Batch: 8060310**		
Carbon disulfide	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Chloroethane	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Chloroform	**2.01**	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
cis-1,2-Dichloroethene	**1.01**	---	0.400	ug/L	1	06/01/18	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	06/01/18	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Methylene chloride	ND	---	3.00	ug/L	1	06/01/18	EPA 8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	06/01/18	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
W29 (A8E0891-05RE1)			**Matrix: Water**			**Batch: 8060310**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Tetrachloroethene (PCE)	**0.891**	---	0.400	ug/L	1	06/01/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	06/01/18	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	06/01/18	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	06/01/18	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	06/01/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits:*	*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*89 %*		*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*06/01/18*	*EPA 8260C*	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB28-S1-30 (A8E0891-01)			**Matrix: Soil**			**Batch: 8060290**		
% Solids	**81.2**	---	1.00	% by Weight	1	06/04/18	EPA 8000C	

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Kevin J. Friscia, Project Manager

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Blank (8051245-BLK1)			Prepared: 05/31/18 23:03		Analyzed: 06/01/18 00:24							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 109 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*113 %*	*50-150 %*		*"*							
LCS (8051245-BS2)			Prepared: 05/31/18 23:03		Analyzed: 05/31/18 23:57							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.458	---	0.100	mg/L	1	0.500	---	92	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 97 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*99 %*	*50-150 %*		*"*							
Duplicate (8051245-DUP1)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 04:00							
QC Source Sample: Non-SDG (A8E0894-02)												
Gasoline Range Organics	ND	---	1.00	mg/L	10	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 113 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*115 %*	*50-150 %*		*"*							
Duplicate (8051245-DUP2)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 06:16							
QC Source Sample: Non-SDG (A8E0896-15)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	**---**	**30%**	Q-05
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*104 %*	*50-150 %*		*"*							
Batch 8060295 - EPA 5035A							**Soil**					
Blank (8060295-BLK1)			Prepared: 06/01/18 09:30		Analyzed: 06/01/18 12:57							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*94 %*	*50-150 %*		*"*							
LCS (8060295-BS4)			Prepared: 06/01/18 09:30		Analyzed: 06/01/18 12:30							
NWTPH-Gx (MS)												

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Kevin J. Friscia, Project Manager

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
LCS (8060295-BS4)			Prepared: 06/01/18 09:30	Analyzed: 06/01/18 12:30								
Gasoline Range Organics	23.1	---	5.00	mg/kg wet	50	25.0	---	92	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*97 %*	*50-150 %*		*"*							
Duplicate (8060295-DUP1)			Prepared: 06/01/18 12:13	Analyzed: 06/01/18 15:41								**V-15**
QC Source Sample: Non-SDG (A8F0012-01)												
Gasoline Range Organics	**175**	---	48.2	mg/kg dry	50	---	201	---	---	14	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 104 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*96 %*	*50-150 %*		*"*							

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B									Water			
Blank (8060310-BLK1)			Prepared: 06/01/18 12:39		Analyzed: 06/01/18 14:03							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 109 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*115 %*		*50-150 %*		*"*					
LCS (8060310-BS2)			Prepared: 06/01/18 12:39		Analyzed: 06/01/18 13:36							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.460	---	0.100	mg/L	1	0.500	---	92	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*102 %*		*50-150 %*		*"*					
Duplicate (8060310-DUP1)			Prepared: 06/01/18 14:09		Analyzed: 06/02/18 01:01							**T-02**
QC Source Sample: Non-SDG (A8E0877-05)												
Gasoline Range Organics	**64.9**	---	10.0	mg/L	100	---	63.9	---	---	2	30%	F-12
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 113 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*118 %*		*50-150 %*		*"*					

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060348 - EPA 5035A							**Soil**					
Blank (8060348-BLK1)			Prepared: 06/04/18 15:00		Analyzed: 06/04/18 17:51							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*96 %*	*50-150 %*		*"*							
LCS (8060348-BS3)			Prepared: 06/04/18 15:00		Analyzed: 06/04/18 17:24							
NWTPH-Gx (MS)												
Gasoline Range Organics	24.9	---	5.00	mg/kg wet	50	25.0	---	100	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*99 %*	*50-150 %*		*"*							
Duplicate (8060348-DUP1)			Prepared: 05/31/18 10:21		Analyzed: 06/04/18 22:29							
QC Source Sample: Non-SDG (A8F0066-01)												
Gasoline Range Organics	ND	---	15.7	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*93 %*	*50-150 %*		*"*							

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Blank (8060295-BLK1)			Prepared: 06/01/18 09:30 Analyzed: 06/01/18 12:57									
5035A/8260C												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	6.67	ug/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	EST
Chloroform	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Blank (8060295-BLK1)			Prepared: 06/01/18 09:30 Analyzed: 06/01/18 12:57									
1,2-Dichloropropane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	ug/kg wet	50	---	---	---	---	---	---	EST
1,2,3-Trichloropropane	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	ug/kg wet	50	---	---	---	---	---	---	

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Blank (8060295-BLK1)				Prepared: 06/01/18 09:30 Analyzed: 06/01/18 12:57								
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*98 %*	*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*			*"*					
LCS (8060295-BS3)				Prepared: 06/01/18 09:30 Analyzed: 06/01/18 12:01								
5035A/8260C												
Acetone	2180	---	1000	ug/kg wet	50	2000	---	109	80-120%	---	---	
Acrylonitrile	1110	---	100	ug/kg wet	50	1000	---	111	80-120%	---	---	
Benzene	1040	---	10.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Bromobenzene	986	---	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Bromochloromethane	992	---	50.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Bromodichloromethane	1110	---	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Bromoform	1220	---	100	ug/kg wet	50	1000	---	**122**	**80-120%**	---	---	Q-56
Bromomethane	1040	---	500	ug/kg wet	50	1000	---	104	80-120%	---	---	
2-Butanone (MEK)	2130	---	500	ug/kg wet	50	2000	---	106	80-120%	---	---	
n-Butylbenzene	875	---	50.0	ug/kg wet	50	1000	---	87	80-120%	---	---	
sec-Butylbenzene	883	---	50.0	ug/kg wet	50	1000	---	88	80-120%	---	---	
tert-Butylbenzene	839	---	50.0	ug/kg wet	50	1000	---	84	80-120%	---	---	
Carbon disulfide	802	---	500	ug/kg wet	50	1000	---	80	80-120%	---	---	
Carbon tetrachloride	984	---	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
Chlorobenzene	986	---	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Chloroethane	ND	---	500	ug/kg wet	50	1000	---	**47**	**80-120%**	---	---	EST
Chloroform	1010	---	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
Chloromethane	874	---	250	ug/kg wet	50	1000	---	87	80-120%	---	---	
2-Chlorotoluene	975	---	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
4-Chlorotoluene	935	---	50.0	ug/kg wet	50	1000	---	93	80-120%	---	---	
Dibromochloromethane	982	---	100	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dibromo-3-chloropropane	982	---	250	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2-Dibromoethane (EDB)	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Dibromomethane	1050	---	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,2-Dichlorobenzene	965	---	25.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,3-Dichlorobenzene	980	---	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,4-Dichlorobenzene	955	---	25.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
Dichlorodifluoromethane	888	---	100	ug/kg wet	50	1000	---	89	80-120%	---	---	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
LCS (8060295-BS3)			Prepared: 06/01/18 09:30 Analyzed: 06/01/18 12:01									
1,1-Dichloroethane	1000	---	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
1,2-Dichloroethane (EDC)	950	---	25.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
1,1-Dichloroethene	987	---	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
cis-1,2-Dichloroethene	983	---	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
trans-1,2-Dichloroethene	940	---	25.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
1,2-Dichloropropane	1070	---	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,3-Dichloropropane	1020	---	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
2,2-Dichloropropane	1020	---	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
1,1-Dichloropropene	994	---	50.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
cis-1,3-Dichloropropene	1020	---	50.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	965	---	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
Ethylbenzene	937	---	25.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
Hexachlorobutadiene	867	---	100	ug/kg wet	50	1000	---	87	80-120%	---	---	
2-Hexanone	1950	---	500	ug/kg wet	50	2000	---	97	80-120%	---	---	
Isopropylbenzene	913	---	50.0	ug/kg wet	50	1000	---	91	80-120%	---	---	
4-Isopropyltoluene	863	---	50.0	ug/kg wet	50	1000	---	86	80-120%	---	---	
Methylene chloride	1020	---	250	ug/kg wet	50	1000	---	102	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	1960	---	500	ug/kg wet	50	2000	---	98	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1030	---	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Naphthalene	1070	---	100	ug/kg wet	50	1000	---	107	80-120%	---	---	
n-Propylbenzene	907	---	25.0	ug/kg wet	50	1000	---	91	80-120%	---	---	
Styrene	981	---	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	982	---	25.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1170	---	50.0	ug/kg wet	50	1000	---	117	80-120%	---	---	
Tetrachloroethene (PCE)	936	---	25.0	ug/kg wet	50	1000	---	94	80-120%	---	---	
Toluene	955	---	50.0	ug/kg wet	50	1000	---	95	80-120%	---	---	
1,2,3-Trichlorobenzene	924	---	250	ug/kg wet	50	1000	---	92	80-120%	---	---	
1,2,4-Trichlorobenzene	905	---	250	ug/kg wet	50	1000	---	90	80-120%	---	---	
1,1,1-Trichloroethane	986	---	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,1,2-Trichloroethane	1100	---	25.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
Trichloroethene (TCE)	1030	---	25.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Trichlorofluoromethane	733	---	100	ug/kg wet	50	1000	---	**73**	**80-120%**	---	---	EST
1,2,3-Trichloropropane	1080	---	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
LCS (8060295-BS3)			Prepared: 06/01/18 09:30 Analyzed: 06/01/18 12:01									
1,2,4-Trimethylbenzene	929	---	50.0	ug/kg wet	50	1000	---	93	80-120%	---	---	
1,3,5-Trimethylbenzene	904	---	50.0	ug/kg wet	50	1000	---	90	80-120%	---	---	
Vinyl chloride	1000	---	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
m,p-Xylene	1800	---	50.0	ug/kg wet	50	2000	---	90	80-120%	---	---	
o-Xylene	917	---	25.0	ug/kg wet	50	1000	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*		*Limits: 80-120 %*							
Toluene-d8 (Surr)			*98 %*		*80-120 %*							
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*							
					Dilution: 1x							
Duplicate (8060295-DUP1)			Prepared: 06/01/18 12:13 Analyzed: 06/01/18 15:41									**V-15**
QC Source Sample: Non-SDG (A8F0012-01)												
Acetone	ND	---	9640	ug/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	96.4	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	4820	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	4820	ug/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	4820	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	4820	ug/kg dry	50	---	ND	---	---	---	30%	EST
Chloroform	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	2410	ug/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	2410	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Duplicate (8060295-DUP1)			Prepared: 06/01/18 12:13		Analyzed: 06/01/18 15:41							**V-15**
QC Source Sample: Non-SDG (A8F0012-01)												
Dibromomethane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	---	4820	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	2410	ug/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	4820	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2410	ug/kg dry	50	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Duplicate (8060295-DUP1)			Prepared: 06/01/18 12:13 Analyzed: 06/01/18 15:41									**V-15**
QC Source Sample: Non-SDG (A8F0012-01)												
1,2,4-Trichlorobenzene	ND	---	2410	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	964	ug/kg dry	50	---	ND	---	---	---	30%	EST
1,2,3-Trichloropropane	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	482	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	---	241	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (8060295-MS1)			Prepared: 05/31/18 16:06 Analyzed: 06/01/18 16:35									**V-15**
QC Source Sample: SB28-S1-30 (A8E0891-01)												
5035A/8260C												
Acetone	2720	---	1430	ug/kg dry	50	2860	ND	95	36-164%	---	---	
Acrylonitrile	1530	---	143	ug/kg dry	50	1430	ND	107	65-134%	---	---	
Benzene	1520	---	14.3	ug/kg dry	50	1430	ND	106	77-121%	---	---	
Bromobenzene	1460	---	35.8	ug/kg dry	50	1430	ND	102	78-121%	---	---	
Bromochloromethane	1450	---	71.5	ug/kg dry	50	1430	ND	102	78-125%	---	---	
Bromodichloromethane	1560	---	71.5	ug/kg dry	50	1430	ND	109	75-127%	---	---	
Bromoform	1550	---	143	ug/kg dry	50	1430	ND	109	67-132%	---	---	Q-54a
Bromomethane	1560	---	715	ug/kg dry	50	1430	ND	109	53-143%	---	---	
2-Butanone (MEK)	2890	---	715	ug/kg dry	50	2860	ND	101	51-148%	---	---	
n-Butylbenzene	1800	---	71.5	ug/kg dry	50	1430	477	93	70-128%	---	---	
sec-Butylbenzene	2720	---	71.5	ug/kg dry	50	1430	1470	87	73-126%	---	---	
tert-Butylbenzene	1360	---	71.5	ug/kg dry	50	1430	161	84	73-125%	---	---	
Carbon disulfide	1090	---	715	ug/kg dry	50	1430	ND	76	63-132%	---	---	
Carbon tetrachloride	1360	---	71.5	ug/kg dry	50	1430	ND	95	70-135%	---	---	

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Matrix Spike (8060295-MS1)			Prepared: 05/31/18 16:06		Analyzed: 06/01/18 16:35							**V-15**
QC Source Sample: SB28-S1-30 (A8E0891-01)												
Chlorobenzene	1490	---	35.8	ug/kg dry	50	1430	28.8	103	79-120%	---	---	
Chloroethane	1480	---	715	ug/kg dry	50	1430	ND	104	59-139%	---	---	EST
Chloroform	1480	---	71.5	ug/kg dry	50	1430	ND	103	78-123%	---	---	
Chloromethane	1220	---	358	ug/kg dry	50	1430	ND	86	50-136%	---	---	
2-Chlorotoluene	1740	---	71.5	ug/kg dry	50	1430	151	111	75-122%	---	---	
4-Chlorotoluene	1400	---	71.5	ug/kg dry	50	1430	ND	98	72-124%	---	---	
Dibromochloromethane	1350	---	143	ug/kg dry	50	1430	ND	94	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1310	---	358	ug/kg dry	50	1430	ND	91	61-132%	---	---	
1,2-Dibromoethane (EDB)	1540	---	71.5	ug/kg dry	50	1430	ND	107	78-122%	---	---	
Dibromomethane	1550	---	71.5	ug/kg dry	50	1430	ND	108	78-125%	---	---	
1,2-Dichlorobenzene	1340	---	35.8	ug/kg dry	50	1430	ND	94	78-121%	---	---	
1,3-Dichlorobenzene	1380	---	35.8	ug/kg dry	50	1430	ND	97	77-121%	---	---	
1,4-Dichlorobenzene	1350	---	35.8	ug/kg dry	50	1430	ND	94	75-120%	---	---	
Dichlorodifluoromethane	1260	---	143	ug/kg dry	50	1430	ND	88	29-149%	---	---	
1,1-Dichloroethane	1460	---	35.8	ug/kg dry	50	1430	ND	102	76-125%	---	---	
1,2-Dichloroethane (EDC)	1430	---	35.8	ug/kg dry	50	1430	ND	100	73-128%	---	---	
1,1-Dichloroethene	1440	---	35.8	ug/kg dry	50	1430	ND	101	70-131%	---	---	
cis-1,2-Dichloroethene	1440	---	35.8	ug/kg dry	50	1430	ND	101	77-123%	---	---	
trans-1,2-Dichloroethene	1360	---	35.8	ug/kg dry	50	1430	ND	95	74-125%	---	---	
1,2-Dichloropropane	1580	---	35.8	ug/kg dry	50	1430	ND	110	76-123%	---	---	
1,3-Dichloropropane	1500	---	71.5	ug/kg dry	50	1430	ND	105	77-121%	---	---	
2,2-Dichloropropane	1400	---	71.5	ug/kg dry	50	1430	ND	98	67-133%	---	---	
1,1-Dichloropropene	1450	---	71.5	ug/kg dry	50	1430	ND	101	76-125%	---	---	
cis-1,3-Dichloropropene	1430	---	71.5	ug/kg dry	50	1430	ND	100	74-126%	---	---	
trans-1,3-Dichloropropene	1350	---	71.5	ug/kg dry	50	1430	ND	95	71-130%	---	---	
Ethylbenzene	1330	---	35.8	ug/kg dry	50	1430	34.2	91	76-122%	---	---	
Hexachlorobutadiene	1710	---	143	ug/kg dry	50	1430	ND	120	61-135%	---	---	
2-Hexanone	3380	---	715	ug/kg dry	50	2860	651	95	53-145%	---	---	
Isopropylbenzene	1550	---	71.5	ug/kg dry	50	1430	308	87	68-134%	---	---	
4-Isopropyltoluene	1280	---	71.5	ug/kg dry	50	1430	ND	90	73-127%	---	---	
Methylene chloride	1460	---	358	ug/kg dry	50	1430	ND	102	70-128%	---	---	
4-Methyl-2-pentanone (MiBK)	4600	---	715	ug/kg dry	50	2860	896	130	65-135%	---	---	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060295 - EPA 5035A							**Soil**					
Matrix Spike (8060295-MS1)			Prepared: 05/31/18 16:06		Analyzed: 06/01/18 16:35							**V-15**
QC Source Sample: SB28-S1-30 (A8E0891-01)												
Methyl tert-butyl ether (MTBE)	1490	---	71.5	ug/kg dry	50	1430	ND	104	73-125%	---	---	
Naphthalene	1590	---	143	ug/kg dry	50	1430	ND	111	62-129%	---	---	
n-Propylbenzene	2200	---	35.8	ug/kg dry	50	1430	960	87	73-125%	---	---	
Styrene	1410	---	71.5	ug/kg dry	50	1430	ND	99	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1340	---	35.8	ug/kg dry	50	1430	ND	94	78-125%	---	---	
1,1,2,2-Tetrachloroethane	2070	---	71.5	ug/kg dry	50	1430	1690	**26**	**70-124%**	---	---	Q-02
Tetrachloroethene (PCE)	1330	---	35.8	ug/kg dry	50	1430	ND	93	73-128%	---	---	
Toluene	1370	---	71.5	ug/kg dry	50	1430	ND	96	77-121%	---	---	
1,2,3-Trichlorobenzene	1350	---	358	ug/kg dry	50	1430	ND	94	66-130%	---	---	
1,2,4-Trichlorobenzene	1310	---	358	ug/kg dry	50	1430	ND	92	67-129%	---	---	
1,1,1-Trichloroethane	1430	---	35.8	ug/kg dry	50	1430	ND	100	73-130%	---	---	
1,1,2-Trichloroethane	1720	---	35.8	ug/kg dry	50	1430	ND	120	78-121%	---	---	
Trichloroethene (TCE)	1510	---	35.8	ug/kg dry	50	1430	ND	106	77-123%	---	---	
Trichlorofluoromethane	1360	---	143	ug/kg dry	50	1430	ND	95	62-140%	---	---	EST
1,2,3-Trichloropropane	3900	---	71.5	ug/kg dry	50	1430	2360	108	73-125%	---	---	
1,2,4-Trimethylbenzene	1360	---	71.5	ug/kg dry	50	1430	ND	95	75-123%	---	---	
1,3,5-Trimethylbenzene	1330	---	71.5	ug/kg dry	50	1430	ND	93	73-124%	---	---	
Vinyl chloride	1400	---	35.8	ug/kg dry	50	1430	ND	98	56-135%	---	---	
m,p-Xylene	2510	---	71.5	ug/kg dry	50	2860	ND	88	77-124%	---	---	
o-Xylene	1380	---	35.8	ug/kg dry	50	1430	37.6	94	77-123%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 107 %*	*Limits: 80-120 %*	*Dilution: 1x*		
Toluene-d8 (Surr)	*100 %*	*80-120 %*	*"*		
4-Bromofluorobenzene (Surr)	*103 %*	*80-120 %*	*"*		

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Blank (8051245-BLK1)			Prepared: 05/31/18 23:03 Analyzed: 06/01/18 00:24									
EPA 8260C												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Blank (8051245-BLK1)			Prepared: 05/31/18 23:03 Analyzed: 06/01/18 00:24									
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	3.00	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B									Water			
Blank (8051245-BLK1)				Prepared: 05/31/18 23:03 Analyzed: 06/01/18 00:24								
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 109 %*	*Limits: 80-120 %*				*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*	*80-120 %*				*"*				
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*				*"*				
LCS (8051245-BS1)				Prepared: 05/31/18 23:03 Analyzed: 05/31/18 23:30								
EPA 8260C												
Acetone	32.7	---	20.0	ug/L	1	40.0	---	82	80-120%	---	---	
Acrylonitrile	19.3	---	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
Benzene	21.0	---	0.200	ug/L	1	20.0	---	105	80-120%	---	---	
Bromobenzene	21.7	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Bromochloromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromodichloromethane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Bromoform	20.1	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Bromomethane	18.1	---	5.00	ug/L	1	20.0	---	91	80-120%	---	---	
2-Butanone (MEK)	40.0	---	10.0	ug/L	1	40.0	---	100	80-120%	---	---	
n-Butylbenzene	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
sec-Butylbenzene	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
tert-Butylbenzene	21.7	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Carbon disulfide	27.7	---	10.0	ug/L	1	20.0	---	**138**	**80-120%**	---	---	Q-56
Carbon tetrachloride	19.7	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Chlorobenzene	21.2	---	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Chloroethane	15.2	---	10.0	ug/L	1	20.0	---	**76**	**80-120%**	---	---	Q-55
Chloroform	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Chloromethane	16.0	---	5.00	ug/L	1	20.0	---	80	80-120%	---	---	
2-Chlorotoluene	22.4	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
4-Chlorotoluene	22.5	---	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Dibromochloromethane	23.8	---	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.8	---	5.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dibromoethane (EDB)	22.0	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromomethane	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichlorobenzene	22.1	---	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
1,3-Dichlorobenzene	22.7	---	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
1,4-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Dichlorodifluoromethane	18.5	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	

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Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
LCS (8051245-BS1)			Prepared: 05/31/18 23:03		Analyzed: 05/31/18 23:30							
1,1-Dichloroethane	19.1	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dichloroethane (EDC)	18.8	---	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
1,1-Dichloroethene	24.3	---	0.400	ug/L	1	20.0	---	**121**	**80-120%**	---	---	Q-56
cis-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,2-Dichloroethene	18.5	---	0.400	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dichloropropane	19.2	---	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,3-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
2,2-Dichloropropane	20.8	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,1-Dichloropropene	21.0	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,3-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
trans-1,3-Dichloropropene	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Ethylbenzene	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Hexachlorobutadiene	20.6	---	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
2-Hexanone	36.9	---	10.0	ug/L	1	40.0	---	92	80-120%	---	---	
Isopropylbenzene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Isopropyltoluene	19.7	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Methylene chloride	19.7	---	3.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	38.4	---	10.0	ug/L	1	40.0	---	96	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.5	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Naphthalene	17.4	---	2.00	ug/L	1	20.0	---	87	80-120%	---	---	
n-Propylbenzene	21.5	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Styrene	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1,2-Tetrachloroethane	22.8	---	0.400	ug/L	1	20.0	---	114	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.9	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Tetrachloroethene (PCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
Toluene	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2,3-Trichlorobenzene	22.2	---	2.00	ug/L	1	20.0	---	111	80-120%	---	---	
1,2,4-Trichlorobenzene	19.8	---	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1,1-Trichloroethane	20.3	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2-Trichloroethane	21.7	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Trichloroethene (TCE)	19.9	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
Trichlorofluoromethane	18.5	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2,3-Trichloropropane	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B												**Water**
LCS (8051245-BS1)				Prepared: 05/31/18 23:03 Analyzed: 05/31/18 23:30								
1,2,4-Trimethylbenzene	20.3	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,3,5-Trimethylbenzene	22.0	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Vinyl chloride	17.9	---	0.400	ug/L	1	20.0	---	90	80-120%	---	---	
m,p-Xylene	40.6	---	1.00	ug/L	1	40.0	---	101	80-120%	---	---	
o-Xylene	19.0	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Duplicate (8051245-DUP1)				Prepared: 05/31/18 23:41 Analyzed: 06/01/18 04:00								
QC Source Sample: Non-SDG (A8E0894-02)												
Acetone	ND	---	200	ug/L	10	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
Benzene	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Bromobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Duplicate (8051245-DUP1)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 04:00							
QC Source Sample: Non-SDG (A8E0894-02)												
Dibromomethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Hexanone	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	---	30.0	ug/L	10	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	100	ug/L	10	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Naphthalene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Styrene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Duplicate (8051245-DUP1)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 04:00							
QC Source Sample: Non-SDG (A8E0894-02)												
1,2,4-Trichlorobenzene	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	4.00	ug/L	10	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
o-Xylene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 111 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*98 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*				*"*			
Duplicate (8051245-DUP2)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 06:16							
QC Source Sample: Non-SDG (A8E0896-15)												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Duplicate (8051245-DUP2)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 06:16							
QC Source Sample: Non-SDG (A8E0896-15)												
Chloroethane	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	**2.69**	---	0.400	ug/L	1	---	3.05	---	---	13	30%	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	3.00	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Duplicate (8051245-DUP2)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 06:16							
QC Source Sample: Non-SDG (A8E0896-15)												
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	**30%**	Q-05
Styrene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*99 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Matrix Spike (8051245-MS1)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 10:46							
QC Source Sample: Non-SDG (A8E0900-01)												
EPA 8260C												
Acetone	368	---	200	ug/L	10	400	ND	92	39-160%	---	---	
Acrylonitrile	178	---	20.0	ug/L	10	200	ND	89	63-135%	---	---	
Benzene	206	---	2.00	ug/L	10	200	ND	103	79-120%	---	---	
Bromobenzene	208	---	5.00	ug/L	10	200	ND	104	80-120%	---	---	
Bromochloromethane	214	---	10.0	ug/L	10	200	ND	107	78-123%	---	---	
Bromodichloromethane	200	---	10.0	ug/L	10	200	ND	100	79-125%	---	---	

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Matrix Spike (8051245-MS1)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 10:46							
QC Source Sample: Non-SDG (A8E0900-01)												
Bromoform	190	---	10.0	ug/L	10	200	ND	95	66-130%	---	---	
Bromomethane	183	---	50.0	ug/L	10	200	ND	91	53-141%	---	---	
2-Butanone (MEK)	364	---	100	ug/L	10	400	ND	91	56-143%	---	---	
n-Butylbenzene	205	---	10.0	ug/L	10	200	ND	102	75-128%	---	---	
sec-Butylbenzene	208	---	10.0	ug/L	10	200	ND	104	77-126%	---	---	
tert-Butylbenzene	213	---	10.0	ug/L	10	200	ND	106	78-124%	---	---	
Carbon disulfide	271	---	100	ug/L	10	200	ND	**135**	**64-133%**	---	---	Q-54d
Carbon tetrachloride	202	---	10.0	ug/L	10	200	ND	101	72-136%	---	---	
Chlorobenzene	207	---	5.00	ug/L	10	200	ND	104	80-120%	---	---	
Chloroethane	155	---	100	ug/L	10	200	ND	77	60-138%	---	---	Q-54e
Chloroform	197	---	10.0	ug/L	10	200	ND	98	79-124%	---	---	
Chloromethane	162	---	50.0	ug/L	10	200	ND	81	50-139%	---	---	
2-Chlorotoluene	219	---	10.0	ug/L	10	200	ND	109	79-122%	---	---	
4-Chlorotoluene	213	---	10.0	ug/L	10	200	ND	106	78-122%	---	---	
Dibromochloromethane	224	---	10.0	ug/L	10	200	ND	112	74-126%	---	---	
1,2-Dibromo-3-chloropropane	187	---	50.0	ug/L	10	200	ND	93	62-128%	---	---	
1,2-Dibromoethane (EDB)	209	---	5.00	ug/L	10	200	ND	104	77-121%	---	---	
Dibromomethane	199	---	10.0	ug/L	10	200	ND	100	79-123%	---	---	
1,2-Dichlorobenzene	209	---	5.00	ug/L	10	200	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	218	---	5.00	ug/L	10	200	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	197	---	5.00	ug/L	10	200	ND	98	79-120%	---	---	
Dichlorodifluoromethane	194	---	10.0	ug/L	10	200	ND	97	32-152%	---	---	
1,1-Dichloroethane	188	---	4.00	ug/L	10	200	ND	94	77-125%	---	---	
1,2-Dichloroethane (EDC)	179	---	4.00	ug/L	10	200	ND	90	73-128%	---	---	
1,1-Dichloroethene	243	---	4.00	ug/L	10	200	ND	122	71-131%	---	---	Q-54
cis-1,2-Dichloroethene	187	---	4.00	ug/L	10	200	ND	93	78-123%	---	---	
trans-1,2-Dichloroethene	186	---	4.00	ug/L	10	200	ND	93	75-124%	---	---	
1,2-Dichloropropane	184	---	5.00	ug/L	10	200	ND	92	78-122%	---	---	
1,3-Dichloropropane	197	---	10.0	ug/L	10	200	ND	98	80-120%	---	---	
2,2-Dichloropropane	163	---	10.0	ug/L	10	200	ND	81	60-139%	---	---	
1,1-Dichloropropene	210	---	10.0	ug/L	10	200	ND	105	79-125%	---	---	
cis-1,3-Dichloropropene	151	---	10.0	ug/L	10	200	ND	75	75-124%	---	---	
trans-1,3-Dichloropropene	175	---	10.0	ug/L	10	200	ND	88	73-127%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8051245 - EPA 5030B							**Water**					
Matrix Spike (8051245-MS1)			Prepared: 05/31/18 23:41		Analyzed: 06/01/18 10:46							
QC Source Sample: Non-SDG (A8E0900-01)												
Ethylbenzene	213	---	5.00	ug/L	10	200	ND	107	79-121%	---	---	
Hexachlorobutadiene	198	---	50.0	ug/L	10	200	ND	99	66-134%	---	---	
2-Hexanone	344	---	100	ug/L	10	400	ND	86	57-139%	---	---	
Isopropylbenzene	196	---	10.0	ug/L	10	200	ND	98	72-131%	---	---	
4-Isopropyltoluene	188	---	10.0	ug/L	10	200	ND	94	77-127%	---	---	
Methylene chloride	189	---	30.0	ug/L	10	200	ND	95	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	352	---	100	ug/L	10	400	ND	88	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	183	---	10.0	ug/L	10	200	ND	91	71-124%	---	---	
Naphthalene	161	---	20.0	ug/L	10	200	ND	81	61-128%	---	---	
n-Propylbenzene	208	---	5.00	ug/L	10	200	ND	104	76-126%	---	---	
Styrene	198	---	10.0	ug/L	10	200	ND	99	78-123%	---	---	
1,1,1,2-Tetrachloroethane	225	---	4.00	ug/L	10	200	ND	112	78-124%	---	---	
1,1,2,2-Tetrachloroethane	209	---	5.00	ug/L	10	200	ND	105	71-121%	---	---	
Tetrachloroethene (PCE)	214	---	4.00	ug/L	10	200	ND	107	74-129%	---	---	
Toluene	201	---	10.0	ug/L	10	200	ND	101	80-121%	---	---	
1,2,3-Trichlorobenzene	213	---	20.0	ug/L	10	200	ND	107	69-129%	---	---	
1,2,4-Trichlorobenzene	185	---	20.0	ug/L	10	200	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	204	---	4.00	ug/L	10	200	ND	102	74-131%	---	---	
1,1,2-Trichloroethane	206	---	5.00	ug/L	10	200	ND	103	80-120%	---	---	
Trichloroethene (TCE)	192	---	4.00	ug/L	10	200	ND	96	79-123%	---	---	
Trichlorofluoromethane	195	---	20.0	ug/L	10	200	ND	98	65-141%	---	---	
1,2,3-Trichloropropane	206	---	10.0	ug/L	10	200	ND	103	73-122%	---	---	
1,2,4-Trimethylbenzene	195	---	10.0	ug/L	10	200	ND	97	76-124%	---	---	
1,3,5-Trimethylbenzene	212	---	10.0	ug/L	10	200	ND	106	75-124%	---	---	
Vinyl chloride	185	---	4.00	ug/L	10	200	ND	93	58-137%	---	---	
m,p-Xylene	398	---	10.0	ug/L	10	400	ND	99	80-121%	---	---	
o-Xylene	191	---	5.00	ug/L	10	200	ND	96	78-122%	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 95 %*	*Limits: 80-120 %*	*Dilution: 1x*
Toluene-d8 (Surr)	*96 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*98 %*	*80-120 %*	*"*

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Blank (8060310-BLK1)			Prepared: 06/01/18 12:39 Analyzed: 06/01/18 14:03									
EPA 8260C												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Blank (8060310-BLK1)			Prepared: 06/01/18 12:39 Analyzed: 06/01/18 14:03									
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	3.00	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Blank (8060310-BLK1)			Prepared: 06/01/18 12:39 Analyzed: 06/01/18 14:03									
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 111 %*	*Limits: 80-120 %*				*Dilution: 1x*				
Toluene-d8 (Surr)			*99 %*	*80-120 %*				*"*				
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*				*"*				
LCS (8060310-BS1)			Prepared: 06/01/18 12:39 Analyzed: 06/01/18 13:06									
EPA 8260C												
Acetone	33.7	---	20.0	ug/L	1	40.0	---	84	80-120%	---	---	
Acrylonitrile	19.5	---	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
Benzene	21.5	---	0.200	ug/L	1	20.0	---	107	80-120%	---	---	
Bromobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Bromochloromethane	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Bromodichloromethane	21.6	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromoform	18.8	---	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Bromomethane	23.4	---	5.00	ug/L	1	20.0	---	117	80-120%	---	---	
2-Butanone (MEK)	41.0	---	10.0	ug/L	1	40.0	---	103	80-120%	---	---	
n-Butylbenzene	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
sec-Butylbenzene	21.1	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
tert-Butylbenzene	21.4	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Carbon disulfide	27.3	---	10.0	ug/L	1	20.0	---	**136**	**80-120%**	---	---	Q-56
Carbon tetrachloride	20.7	---	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chlorobenzene	20.5	---	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Chloroethane	19.8	---	10.0	ug/L	1	20.0	---	99	80-120%	---	---	
Chloroform	20.6	---	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	16.9	---	5.00	ug/L	1	20.0	---	84	80-120%	---	---	
2-Chlorotoluene	21.8	---	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromochloromethane	22.3	---	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.5	---	5.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.8	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Dibromomethane	21.5	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,3-Dichlorobenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,4-Dichlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Dichlorodifluoromethane	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	

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Apex Laboratories, LLC

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
LCS (8060310-BS1)			Prepared: 06/01/18 12:39 Analyzed: 06/01/18 13:06									
1,1-Dichloroethane	19.7	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.6	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,1-Dichloroethene	25.5	---	0.400	ug/L	1	20.0	---	**127**	**80-120%**	---	---	Q-56
cis-1,2-Dichloroethene	20.2	---	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
trans-1,2-Dichloroethene	19.5	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichloropropane	19.9	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichloropropane	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
2,2-Dichloropropane	20.5	---	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
cis-1,3-Dichloropropene	18.4	---	1.00	ug/L	1	20.0	---	92	80-120%	---	---	
trans-1,3-Dichloropropene	18.6	---	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Ethylbenzene	21.0	---	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Hexachlorobutadiene	18.9	---	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
2-Hexanone	36.0	---	10.0	ug/L	1	40.0	---	90	80-120%	---	---	
Isopropylbenzene	19.1	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
4-Isopropyltoluene	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Methylene chloride	19.5	---	3.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	37.8	---	10.0	ug/L	1	40.0	---	95	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.1	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Naphthalene	16.4	---	2.00	ug/L	1	20.0	---	82	80-120%	---	---	
n-Propylbenzene	21.4	---	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Styrene	19.2	---	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.6	---	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Tetrachloroethene (PCE)	19.8	---	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
Toluene	19.8	---	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,3-Trichlorobenzene	20.8	---	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	18.4	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,1,1-Trichloroethane	20.6	---	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,1,2-Trichloroethane	20.3	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	19.7	---	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
Trichlorofluoromethane	23.0	---	2.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,2,3-Trichloropropane	20.9	---	1.00	ug/L	1	20.0	---	105	80-120%	---	---	

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Kevin J. Friscia, Project Manager

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
LCS (8060310-BS1)			Prepared: 06/01/18 12:39 Analyzed: 06/01/18 13:06									
1,2,4-Trimethylbenzene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,3,5-Trimethylbenzene	21.3	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Vinyl chloride	19.0	---	0.400	ug/L	1	20.0	---	95	80-120%	---	---	
m,p-Xylene	39.7	---	1.00	ug/L	1	40.0	---	99	80-120%	---	---	
o-Xylene	18.5	---	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*		*Limits: 80-120 %*							
Toluene-d8 (Surr)			*97 %*		*80-120 %*							
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*							
Duplicate (8060310-DUP1)			Prepared: 06/01/18 14:09 Analyzed: 06/02/18 01:01									**T-02**
QC Source Sample: Non-SDG (A8E0877-05)												
Acetone	ND	---	2000	ug/L	100	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
Benzene	ND	---	20.0	ug/L	100	---	ND	---	---	---	30%	
Bromobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromoform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Bromomethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Chloroethane	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
Chloroform	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Chloromethane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Duplicate (8060310-DUP1)			Prepared: 06/01/18 14:09		Analyzed: 06/02/18 01:01							**T-02**
QC Source Sample: Non-SDG (A8E0877-05)												
Dibromomethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	500	ug/L	100	---	ND	---	---	---	30%	
2-Hexanone	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Methylene chloride	ND	---	300	ug/L	100	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	1000	ug/L	100	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Naphthalene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Styrene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**28100**	---	40.0	ug/L	100	---	28400	---	---	1	30%	E
Toluene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Duplicate (8060310-DUP1)			Prepared: 06/01/18 14:09 Analyzed: 06/02/18 01:01									**T-02**
QC Source Sample: Non-SDG (A8E0877-05)												
1,2,4-Trichlorobenzene	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	200	ug/L	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	40.0	ug/L	100	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	100	ug/L	100	---	ND	---	---	---	30%	
o-Xylene	ND	---	50.0	ug/L	100	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*114 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
Matrix Spike (8060310-MS1)			Prepared: 06/01/18 14:09 Analyzed: 06/01/18 15:25									
QC Source Sample: Non-SDG (A8E0803-07RE1)												
EPA 8260C												
Acetone	34.4	---	20.0	ug/L	1	40.0	ND	86	39-160%	---	---	
Acrylonitrile	19.5	---	2.00	ug/L	1	20.0	ND	97	63-135%	---	---	
Benzene	21.7	---	0.200	ug/L	1	20.0	ND	109	79-120%	---	---	
Bromobenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Bromochloromethane	21.0	---	1.00	ug/L	1	20.0	ND	105	78-123%	---	---	
Bromodichloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	79-125%	---	---	
Bromoform	18.4	---	1.00	ug/L	1	20.0	ND	92	66-130%	---	---	
Bromomethane	23.3	---	5.00	ug/L	1	20.0	ND	116	53-141%	---	---	
2-Butanone (MEK)	41.0	---	10.0	ug/L	1	40.0	ND	103	56-143%	---	---	
n-Butylbenzene	21.2	---	1.00	ug/L	1	20.0	ND	106	75-128%	---	---	
sec-Butylbenzene	21.4	---	1.00	ug/L	1	20.0	ND	107	77-126%	---	---	
tert-Butylbenzene	21.6	---	1.00	ug/L	1	20.0	ND	108	78-124%	---	---	
Carbon disulfide	20.7	---	10.0	ug/L	1	20.0	ND	104	64-133%	---	---	Q-54b
Carbon tetrachloride	20.7	---	1.00	ug/L	1	20.0	ND	104	72-136%	---	---	

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Matrix Spike (8060310-MS1)			Prepared: 06/01/18 14:09		Analyzed: 06/01/18 15:25							
QC Source Sample: Non-SDG (A8E0803-07RE1)												
Chlorobenzene	20.5	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Chloroethane	25.1	---	10.0	ug/L	1	20.0	12.3	64	60-138%	---	---	
Chloroform	20.9	---	1.00	ug/L	1	20.0	ND	104	79-124%	---	---	
Chloromethane	17.0	---	5.00	ug/L	1	20.0	ND	85	50-139%	---	---	
2-Chlorotoluene	22.3	---	1.00	ug/L	1	20.0	ND	111	79-122%	---	---	
4-Chlorotoluene	21.9	---	1.00	ug/L	1	20.0	ND	110	78-122%	---	---	
Dibromochloromethane	21.6	---	1.00	ug/L	1	20.0	ND	108	74-126%	---	---	
1,2-Dibromo-3-chloropropane	18.7	---	5.00	ug/L	1	20.0	ND	93	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.8	---	0.500	ug/L	1	20.0	ND	104	77-121%	---	---	
Dibromomethane	21.3	---	1.00	ug/L	1	20.0	ND	107	79-123%	---	---	
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	80-120%	---	---	
1,4-Dichlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-120%	---	---	
Dichlorodifluoromethane	23.1	---	1.00	ug/L	1	20.0	ND	115	32-152%	---	---	
1,1-Dichloroethane	74.6	---	0.400	ug/L	1	20.0	66.1	**42**	**77-125%**	---	---	Q-01
1,2-Dichloroethane (EDC)	19.7	---	0.400	ug/L	1	20.0	ND	98	73-128%	---	---	
1,1-Dichloroethene	30.7	---	0.400	ug/L	1	20.0	13.3	87	71-131%	---	---	Q-54c
cis-1,2-Dichloroethene	20.8	---	0.400	ug/L	1	20.0	0.738	100	78-123%	---	---	
trans-1,2-Dichloroethene	19.7	---	0.400	ug/L	1	20.0	ND	98	75-124%	---	---	
1,2-Dichloropropane	20.0	---	0.500	ug/L	1	20.0	ND	100	78-122%	---	---	
1,3-Dichloropropane	19.8	---	1.00	ug/L	1	20.0	ND	99	80-120%	---	---	
2,2-Dichloropropane	21.5	---	1.00	ug/L	1	20.0	ND	108	60-139%	---	---	
1,1-Dichloropropene	22.6	---	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
cis-1,3-Dichloropropene	15.5	---	1.00	ug/L	1	20.0	ND	78	75-124%	---	---	
trans-1,3-Dichloropropene	18.3	---	1.00	ug/L	1	20.0	ND	91	73-127%	---	---	
Ethylbenzene	21.4	---	0.500	ug/L	1	20.0	ND	107	79-121%	---	---	
Hexachlorobutadiene	19.1	---	5.00	ug/L	1	20.0	ND	96	66-134%	---	---	
2-Hexanone	36.5	---	10.0	ug/L	1	40.0	ND	91	57-139%	---	---	
Isopropylbenzene	19.5	---	1.00	ug/L	1	20.0	ND	97	72-131%	---	---	
4-Isopropyltoluene	19.1	---	1.00	ug/L	1	20.0	ND	96	77-127%	---	---	
Methylene chloride	19.6	---	3.00	ug/L	1	20.0	ND	98	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	37.4	---	10.0	ug/L	1	40.0	ND	93	67-130%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Matrix Spike (8060310-MS1)			Prepared: 06/01/18 14:09 Analyzed: 06/01/18 15:25									
QC Source Sample: Non-SDG (A8E0803-07RE1)												
Methyl tert-butyl ether (MTBE)	19.3	---	1.00	ug/L	1	20.0	ND	96	71-124%	---	---	
Naphthalene	15.7	---	2.00	ug/L	1	20.0	ND	78	61-128%	---	---	
n-Propylbenzene	21.8	---	0.500	ug/L	1	20.0	ND	109	76-126%	---	---	
Styrene	19.6	---	1.00	ug/L	1	20.0	ND	98	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.5	---	0.400	ug/L	1	20.0	ND	108	78-124%	---	---	
1,1,2,2-Tetrachloroethane	21.7	---	0.500	ug/L	1	20.0	ND	109	71-121%	---	---	
Tetrachloroethene (PCE)	20.4	---	0.400	ug/L	1	20.0	0.257	101	74-129%	---	---	
Toluene	19.9	---	1.00	ug/L	1	20.0	ND	99	80-121%	---	---	
1,2,3-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	ND	101	69-129%	---	---	
1,2,4-Trichlorobenzene	17.7	---	2.00	ug/L	1	20.0	ND	89	69-130%	---	---	
1,1,1-Trichloroethane	44.8	---	0.400	ug/L	1	20.0	26.0	94	74-131%	---	---	
1,1,2-Trichloroethane	20.5	---	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Trichloroethene (TCE)	20.1	---	0.400	ug/L	1	20.0	0.320	99	79-123%	---	---	
Trichlorofluoromethane	23.4	---	2.00	ug/L	1	20.0	ND	117	65-141%	---	---	
1,2,3-Trichloropropane	21.2	---	1.00	ug/L	1	20.0	ND	106	73-122%	---	---	
1,2,4-Trimethylbenzene	19.5	---	1.00	ug/L	1	20.0	ND	98	76-124%	---	---	
1,3,5-Trimethylbenzene	21.4	---	1.00	ug/L	1	20.0	ND	107	75-124%	---	---	
Vinyl chloride	20.1	---	0.400	ug/L	1	20.0	0.235	99	58-137%	---	---	
m,p-Xylene	40.3	---	1.00	ug/L	1	40.0	ND	101	80-121%	---	---	
o-Xylene	18.5	---	0.500	ug/L	1	20.0	ND	92	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				
Matrix Spike Dup (8060310-MSD1)			Prepared: 06/01/18 14:09 Analyzed: 06/01/18 15:53									
QC Source Sample: Non-SDG (A8E0803-07RE1)												
Acetone	35.7	---	20.0	ug/L	1	40.0	ND	89	39-160%	4	30%	
Acrylonitrile	20.8	---	2.00	ug/L	1	20.0	ND	104	63-135%	7	30%	
Benzene	22.2	---	0.200	ug/L	1	20.0	ND	111	79-120%	2	30%	
Bromobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	3	30%	
Bromochloromethane	21.4	---	1.00	ug/L	1	20.0	ND	107	78-123%	2	30%	
Bromodichloromethane	22.1	---	1.00	ug/L	1	20.0	ND	110	79-125%	3	30%	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Matrix Spike Dup (8060310-MSD1)			Prepared: 06/01/18 14:09 Analyzed: 06/01/18 15:53									
QC Source Sample: Non-SDG (A8E0803-07RE1)												
Bromoform	18.7	---	1.00	ug/L	1	20.0	ND	94	66-130%	2	30%	
Bromomethane	23.9	---	5.00	ug/L	1	20.0	ND	119	53-141%	3	30%	
2-Butanone (MEK)	42.6	---	10.0	ug/L	1	40.0	ND	106	56-143%	4	30%	
n-Butylbenzene	22.4	---	1.00	ug/L	1	20.0	ND	112	75-128%	5	30%	
sec-Butylbenzene	22.2	---	1.00	ug/L	1	20.0	ND	111	77-126%	4	30%	
tert-Butylbenzene	22.6	---	1.00	ug/L	1	20.0	ND	113	78-124%	4	30%	
Carbon disulfide	21.1	---	10.0	ug/L	1	20.0	ND	106	64-133%	2	30%	Q-54b
Carbon tetrachloride	21.3	---	1.00	ug/L	1	20.0	ND	107	72-136%	3	30%	
Chlorobenzene	21.1	---	0.500	ug/L	1	20.0	ND	105	80-120%	3	30%	
Chloroethane	24.2	---	10.0	ug/L	1	20.0	12.3	60	60-138%	7	30%	
Chloroform	21.5	---	1.00	ug/L	1	20.0	ND	108	79-124%	3	30%	
Chloromethane	17.8	---	5.00	ug/L	1	20.0	ND	89	50-139%	5	30%	
2-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-122%	2	30%	
4-Chlorotoluene	22.8	---	1.00	ug/L	1	20.0	ND	114	78-122%	4	30%	
Dibromochloromethane	22.3	---	1.00	ug/L	1	20.0	ND	112	74-126%	3	30%	
1,2-Dibromo-3-chloropropane	19.7	---	5.00	ug/L	1	20.0	ND	99	62-128%	5	30%	
1,2-Dibromoethane (EDB)	21.1	---	0.500	ug/L	1	20.0	ND	106	77-121%	2	30%	
Dibromomethane	22.2	---	1.00	ug/L	1	20.0	ND	111	79-123%	4	30%	
1,2-Dichlorobenzene	21.6	---	0.500	ug/L	1	20.0	ND	108	80-120%	4	30%	
1,3-Dichlorobenzene	22.3	---	0.500	ug/L	1	20.0	ND	112	80-120%	3	30%	
1,4-Dichlorobenzene	20.5	---	0.500	ug/L	1	20.0	ND	102	79-120%	4	30%	
Dichlorodifluoromethane	23.4	---	1.00	ug/L	1	20.0	ND	117	32-152%	1	30%	
1,1-Dichloroethane	81.0	---	0.400	ug/L	1	20.0	66.1	**74**	**77-125%**	**55**	**30%**	Q-01
1,2-Dichloroethane (EDC)	20.5	---	0.400	ug/L	1	20.0	ND	102	73-128%	4	30%	
1,1-Dichloroethene	31.7	---	0.400	ug/L	1	20.0	13.3	92	71-131%	5	30%	Q-54c
cis-1,2-Dichloroethene	21.6	---	0.400	ug/L	1	20.0	0.738	104	78-123%	4	30%	
trans-1,2-Dichloroethene	20.3	---	0.400	ug/L	1	20.0	ND	102	75-124%	3	30%	
1,2-Dichloropropane	20.6	---	0.500	ug/L	1	20.0	ND	103	78-122%	3	30%	
1,3-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	ND	103	80-120%	4	30%	
2,2-Dichloropropane	22.9	---	1.00	ug/L	1	20.0	ND	115	60-139%	6	30%	
1,1-Dichloropropene	22.8	---	1.00	ug/L	1	20.0	ND	114	79-125%	1	30%	
cis-1,3-Dichloropropene	16.2	---	1.00	ug/L	1	20.0	ND	81	75-124%	5	30%	
trans-1,3-Dichloropropene	19.0	---	1.00	ug/L	1	20.0	ND	95	73-127%	4	30%	

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060310 - EPA 5030B							**Water**					
Matrix Spike Dup (8060310-MSD1)			Prepared: 06/01/18 14:09 Analyzed: 06/01/18 15:53									
QC Source Sample: Non-SDG (A8E0803-07RE1)												
Ethylbenzene	21.7	---	0.500	ug/L	1	20.0	ND	109	79-121%	1	30%	
Hexachlorobutadiene	19.6	---	5.00	ug/L	1	20.0	ND	98	66-134%	2	30%	
2-Hexanone	37.9	---	10.0	ug/L	1	40.0	ND	95	57-139%	4	30%	
Isopropylbenzene	19.8	---	1.00	ug/L	1	20.0	ND	99	72-131%	2	30%	
4-Isopropyltoluene	19.9	---	1.00	ug/L	1	20.0	ND	99	77-127%	4	30%	
Methylene chloride	20.3	---	3.00	ug/L	1	20.0	ND	102	74-124%	3	30%	
4-Methyl-2-pentanone (MiBK)	39.1	---	10.0	ug/L	1	40.0	ND	98	67-130%	4	30%	
Methyl tert-butyl ether (MTBE)	20.2	---	1.00	ug/L	1	20.0	ND	101	71-124%	5	30%	
Naphthalene	16.9	---	2.00	ug/L	1	20.0	ND	84	61-128%	7	30%	
n-Propylbenzene	22.4	---	0.500	ug/L	1	20.0	ND	112	76-126%	3	30%	
Styrene	19.6	---	1.00	ug/L	1	20.0	ND	98	78-123%	0.1	30%	
1,1,1,2-Tetrachloroethane	22.1	---	0.400	ug/L	1	20.0	ND	110	78-124%	3	30%	
1,1,2,2-Tetrachloroethane	22.9	---	0.500	ug/L	1	20.0	ND	115	71-121%	5	30%	
Tetrachloroethene (PCE)	20.6	---	0.400	ug/L	1	20.0	0.257	102	74-129%	1	30%	
Toluene	20.4	---	1.00	ug/L	1	20.0	ND	102	80-121%	3	30%	
1,2,3-Trichlorobenzene	21.8	---	2.00	ug/L	1	20.0	ND	109	69-129%	8	30%	
1,2,4-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	ND	95	69-130%	7	30%	
1,1,1-Trichloroethane	47.2	---	0.400	ug/L	1	20.0	26.0	106	74-131%	12	30%	
1,1,2-Trichloroethane	20.8	---	0.500	ug/L	1	20.0	ND	104	80-120%	1	30%	
Trichloroethene (TCE)	20.7	---	0.400	ug/L	1	20.0	0.320	102	79-123%	3	30%	
Trichlorofluoromethane	23.5	---	2.00	ug/L	1	20.0	ND	118	65-141%	0.5	30%	
1,2,3-Trichloropropane	22.5	---	1.00	ug/L	1	20.0	ND	112	73-122%	6	30%	
1,2,4-Trimethylbenzene	20.4	---	1.00	ug/L	1	20.0	ND	102	76-124%	4	30%	
1,3,5-Trimethylbenzene	22.2	---	1.00	ug/L	1	20.0	ND	111	75-124%	4	30%	
Vinyl chloride	20.7	---	0.400	ug/L	1	20.0	0.235	103	58-137%	3	30%	
m,p-Xylene	40.9	---	1.00	ug/L	1	40.0	ND	102	80-121%	1	30%	
o-Xylene	18.8	---	0.500	ug/L	1	20.0	ND	94	78-122%	2	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*			*Limits: 80-120 %*			*Dilution: 1x*			
Toluene-d8 (Surr)			*95 %*			*80-120 %*			*"*			
4-Bromofluorobenzene (Surr)			*97 %*			*80-120 %*			*"*			

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Tigard, OR 97223
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EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8060290 - Total Solids (Dry Weight)							**Soil**					
Duplicate (8060290-DUP1)			Prepared: 06/01/18 08:46		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8E0883-01)												
% Solids	**84.4**	---	1.00	% by Weight	1	---	82.7	---	---	2	10%	
Duplicate (8060290-DUP2)			Prepared: 06/01/18 08:46		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8E0899-01)												
% Solids	**82.0**	---	1.00	% by Weight	1	---	81.1	---	---	1	10%	
Duplicate (8060290-DUP3)			Prepared: 06/01/18 13:53		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8F0009-01)												
% Solids	**81.5**	---	1.00	% by Weight	1	---	82.5	---	---	1	10%	
Duplicate (8060290-DUP4)			Prepared: 06/01/18 13:53		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8F0009-15)												
% Solids	**85.0**	---	1.00	% by Weight	1	---	84.9	---	---	0.06	10%	
Duplicate (8060290-DUP5)			Prepared: 06/01/18 13:53		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8F0021-04)												
% Solids	**78.1**	---	1.00	% by Weight	1	---	78.0	---	---	0.1	10%	
Duplicate (8060290-DUP6)			Prepared: 06/01/18 19:23		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8F0037-03)												
% Solids	**79.1**	---	1.00	% by Weight	1	---	79.2	---	---	0.2	10%	
Duplicate (8060290-DUP7)			Prepared: 06/01/18 19:23		Analyzed: 06/04/18 08:17							
QC Source Sample: Non-SDG (A8F0044-02)												
% Solids	**86.4**	---	1.00	% by Weight	1	---	85.8	---	---	0.8	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8060310							
A8E0891-03RE1	Water	NWTPH-Gx (MS)	05/30/18 10:00	06/01/18 14:09	5mL/5mL	5mL/5mL	1.00
A8E0891-04RE1	Water	NWTPH-Gx (MS)	05/30/18 12:00	06/01/18 14:09	5mL/5mL	5mL/5mL	1.00
A8E0891-05RE1	Water	NWTPH-Gx (MS)	05/30/18 15:14	06/01/18 14:09	5mL/5mL	5mL/5mL	1.00

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8060348							
A8E0891-01RE1	Soil	NWTPH-Gx (MS)	05/30/18 13:32	05/31/18 16:06	5.14g/5mL	5g/5mL	0.97

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8060290							
A8E0891-01	Soil	EPA 8000C	05/30/18 13:32	06/01/18 08:46			NA

Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8060295							
A8E0891-01	Soil	5035A/8260C	05/30/18 13:32	05/31/18 16:06	5.14g/5mL	5g/5mL	0.97

Volatile Organic Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8060310							
A8E0891-03RE1	Water	EPA 8260C	05/30/18 10:00	06/01/18 14:09	5mL/5mL	5mL/5mL	1.00
A8E0891-04RE1	Water	EPA 8260C	05/30/18 12:00	06/01/18 14:09	5mL/5mL	5mL/5mL	1.00
A8E0891-05RE1	Water	EPA 8260C	05/30/18 15:14	06/01/18 14:09	5mL/5mL	5mL/5mL	1.00

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10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

E	Estimated Value. The result is above the calibration range of the instrument.
EST	Result reported as an Estimated Value. Compound failed initial calibration criteria.
F-12	The result for this hydrocarbon range is primarily due to the presence of individual analyte peaks in the quantitation range. No fuel pattern detected.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +1.8%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +16%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +7%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +8%. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -4%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260C, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-02	Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
T-02	This Batch QC sample was analyzed outside of the method specified 12 hour tune window. Results are estimated.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the blank results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Cert?

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Kevin J. Friscia, Project Manager

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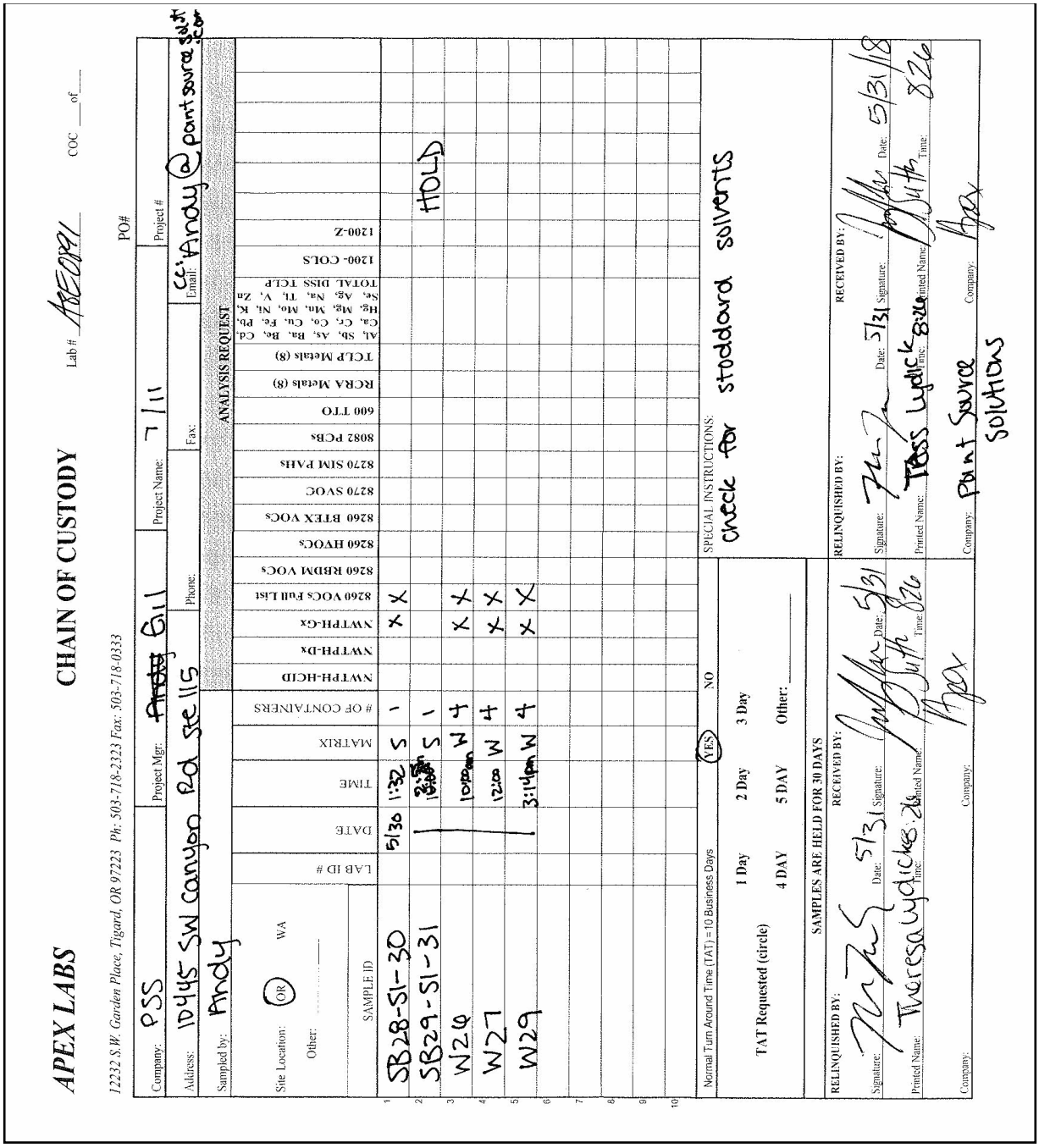

APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A8E0891 COC ___ of ___

Company: PSS | Project Mgr: ~~Andy~~ Gil | Project Name: 7/11 | Project #

Address: 10445 SW Canyon Rd ste 115 | Phone: | Fax: | Email: cc: Andy@pointsourcegulf.com

Sampled by: Andy | PO#

Site Location: (OR) WA | Other: _____

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200- Z
1	SB28-SI-30		5/30	1:32	S	1			X	X												
2	SB29-SI-31			2:55 / 15:00	S	1																HOLD
3	W26			10:20am	W	4			X	X												
4	W27			12:00	W	4			X	X												
5	W29			3:14pm	W	4			X	X												
6																						
7																						
8																						
9																						
10																						

Normal Turn Around Time (TAT) = 10 Business Days (YES) NO

SPECIAL INSTRUCTIONS: check for stoddard solvents

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: [illegible] Date: 5/31 Time: 820 Printed Name: Theresa Lydick Company: PSS

RECEIVED BY: Signature: [illegible] Date: 5/31 Time: 820 Printed Name: [illegible] Company: Apex

RELINQUISHED BY: Signature: [illegible] Date: 5/31 Time: 820 Printed Name: [illegible] Company: Apex

RECEIVED BY: Signature: [illegible] Date: 5/31/18 Time: 826 Printed Name: Tess Lydick Company: Point Source Solutions

Apex Laboratories, LLC

12232 S.W. Garden Place
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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **7-Eleven**	
10445 SW Canyon Road Suite 115	Project Number: **OR161202-3B**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A8E0891 - 06 14 18 0920**

APEX LABS COOLER RECEIPT FORM

Client: PSS Element WO#: A8 E0891

Project/Project #: 7/11

Delivery info:

Date/Time Received: 5/31/18 @ 826 By: JS

Delivered by: Apex___Client X ESS___FedEx___UPS___Swift___Senvoy___SDS___Other_____

Cooler Inspection Inspected by: JS : 5/31/18 @ 831

Chain of Custody Included? Yes X No ___ Custody Seals? Yes_____ No X

Signed/Dated by Client? Yes X No ___

Signed/Dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	3.3						
Received on Ice? (Y/N)							
Temp. Blanks? (Y/N)							
Ice Type: (Gel/Real/Other)							
Condition:	good						

Cooler out of temp? (Y)(N) Possible reason why:

If some coolers are in temp and some out, were green dot applied to out of temperature samples? Yes/No/NA

Samples Inspection: Inspected by: MA : 5/31/18 @ 1541

All Samples Intact? Yes X No ___ Comments:

Bottle Labels/COCs agree? Yes X No ___ Comments: NO T on lowts

Containers/Volumes Received Appropriate for Analysis? Yes X No ___ Comments:

Do VOA Vials have Visible Headspace? Yes ___ No X NA ~~X~~ 1105/31

Comments Sediment in all VOAs.

Water Samples: pH Checked and Appropriate (except VOAs): Yes___No___NA X

Comments:

Additional Information:

Labeled by: Witness: Cooler Inspected by: See Project Contact Form: Y

MA JS Client

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
EPA ID: OR01039

Thursday, October 3, 2019

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: A9I0002 - Arcoa Building - OR190501-3

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9I0002, which was received by the laboratory on 8/30/2019 at 11:12:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of final reporting, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.3 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1-S1-26	A9I0002-01	Soil	08/28/19 10:04	08/30/19 11:12
MW2-S1-30	A9I0002-02	Soil	08/28/19 14:30	08/30/19 11:12
MW3-S1-36	A9I0002-03	Soil	08/29/19 09:40	08/30/19 11:12
MW4-S1-15	A9I0002-04	Soil	08/29/19 12:10	08/30/19 11:12
MW4-S2-39	A9I0002-05	Soil	08/29/19 12:45	08/30/19 11:12
MW5-S1-9	A9I0002-06	Soil	08/29/19 13:45	08/30/19 11:12
MW4-S3-34	A9I0002-07	Soil	08/29/19 13:00	08/30/19 11:12
MW5-S2-31	A9I0002-08	Soil	08/29/19 15:15	08/30/19 11:12

Apex Laboratories

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1-S1-26 (A9I0002-01)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.0	mg/kg dry	1	09/11/19 21:37	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/11/19 21:37	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/11/19 21:37*	*NWTPH-Dx*	
MW2-S1-30 (A9I0002-02)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.0	mg/kg dry	1	09/11/19 22:19	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/11/19 22:19	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 86 %*		*Limits: 50-150 %*	*1*	*09/11/19 22:19*	*NWTPH-Dx*	
MW3-S1-36 (A9I0002-03)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.0	mg/kg dry	1	09/11/19 22:39	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/11/19 22:39	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/11/19 22:39*	*NWTPH-Dx*	
MW4-S1-15 (A9I0002-04RE1)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	**89.3**	---	51.3	mg/kg dry	2	09/12/19 11:57	NWTPH-Dx	**F-18**
Oil	ND	---	103	mg/kg dry	2	09/12/19 11:57	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*	*2*	*09/12/19 11:57*	*NWTPH-Dx*	
MW4-S2-39 (A9I0002-05)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.0	mg/kg dry	1	09/11/19 23:00	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/11/19 23:00	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 88 %*		*Limits: 50-150 %*	*1*	*09/11/19 23:00*	*NWTPH-Dx*	
MW5-S1-9 (A9I0002-06)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.3	mg/kg dry	1	09/11/19 23:20	NWTPH-Dx	
Oil	ND	---	50.6	mg/kg dry	1	09/11/19 23:20	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 90 %*		*Limits: 50-150 %*	*1*	*09/11/19 23:20*	*NWTPH-Dx*	
MW4-S3-34 (A9I0002-07)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.0	mg/kg dry	1	09/11/19 23:41	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	09/11/19 23:41	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*09/11/19 23:41*	*NWTPH-Dx*	
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090729**		
Diesel	ND	---	25.0	mg/kg dry	1	09/12/19 00:01	NWTPH-Dx	

Apex Laboratories

Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090729**		
Oil	**92.7**	---	50.0	mg/kg dry	1	09/12/19 00:01	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	*1*	*09/12/19 00:01*	*NWTPH-Dx*	

Apex Laboratories

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Kevin J. Friscia, Project Manager

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1-S1-26 (A9I0002-01)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	ND	---	2.27	mg/kg dry	50	09/03/19 14:19	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 108 %*		*Limits: 50-150 %*	*1*	*09/03/19 14:19*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*	*1*	*09/03/19 14:19*	*NWTPH-Gx (MS)*	
MW2-S1-30 (A9I0002-02)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	ND	---	3.12	mg/kg dry	50	09/03/19 15:13	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*		*Limits: 50-150 %*	*1*	*09/03/19 15:13*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*93 %*	*50-150 %*	*1*	*09/03/19 15:13*	*NWTPH-Gx (MS)*	
MW3-S1-36 (A9I0002-03)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	**194**	---	122	mg/kg dry	2000	09/03/19 17:29	NWTPH-Gx (MS)	**F-13**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 122 %*		*Limits: 50-150 %*	*1*	*09/03/19 17:29*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*93 %*	*50-150 %*	*1*	*09/03/19 17:29*	*NWTPH-Gx (MS)*	
MW4-S1-15 (A9I0002-04)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	**556**	---	171	mg/kg dry	2000	09/03/19 17:57	NWTPH-Gx (MS)	**F-13**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 107 %*		*Limits: 50-150 %*	*1*	*09/03/19 17:57*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*93 %*	*50-150 %*	*1*	*09/03/19 17:57*	*NWTPH-Gx (MS)*	
MW4-S2-39 (A9I0002-05)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	ND	---	3.66	mg/kg dry	50	09/03/19 15:40	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*		*Limits: 50-150 %*	*1*	*09/03/19 15:40*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*92 %*	*50-150 %*	*1*	*09/03/19 15:40*	*NWTPH-Gx (MS)*	
MW5-S1-9 (A9I0002-06)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	**23100**	---	281	mg/kg dry	2000	09/03/19 19:18	NWTPH-Gx (MS)	**F-13**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 346 %*		*Limits: 50-150 %*	*1*	*09/03/19 19:18*	*NWTPH-Gx (MS)*	*S-08*
1,4-Difluorobenzene (Sur)			*94 %*	*50-150 %*	*1*	*09/03/19 19:18*	*NWTPH-Gx (MS)*	
MW4-S3-34 (A9I0002-07)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	**673**	---	28.1	mg/kg dry	200	09/03/19 18:51	NWTPH-Gx (MS)	**F-13**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 170 %*		*Limits: 50-150 %*	*1*	*09/03/19 18:51*	*NWTPH-Gx (MS)*	*S-08*
1,4-Difluorobenzene (Sur)			*94 %*	*50-150 %*	*1*	*09/03/19 18:51*	*NWTPH-Gx (MS)*	
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090444**		
Gasoline Range Organics	**535**	---	5.70	mg/kg dry	50	09/03/19 16:08	NWTPH-Gx (MS)	**F-13**

Apex Laboratories

Kevin J. Friscia, Project Manager

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090444**		
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*611 %*	*Limits: 50-150 %*	*1*	*09/03/19 16:08*	*NWTPH-Gx (MS)*	*S-08*
1,4-Difluorobenzene (Sur)			*93 %*	*50-150 %*	*1*	*09/03/19 16:08*	*NWTPH-Gx (MS)*	

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1-S1-26 (A9I0002-01)				**Matrix: Soil**		**Batch: 9090444**		
Acetone	ND	---	0.453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Acrylonitrile	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Benzene	ND	---	0.00453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Bromobenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Bromochloromethane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Bromodichloromethane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Bromoform	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Bromomethane	ND	---	0.227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
2-Butanone (MEK)	ND	---	0.227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
n-Butylbenzene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
sec-Butylbenzene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
tert-Butylbenzene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Carbon disulfide	ND	---	0.227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Carbon tetrachloride	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Chlorobenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Chloroethane	ND	---	0.227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Chloroform	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Chloromethane	ND	---	0.113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
2-Chlorotoluene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
4-Chlorotoluene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Dibromochloromethane	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Dibromomethane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1-S1-26 (A9I0002-01)				**Matrix: Soil**		**Batch: 9090444**		
Ethylbenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Hexachlorobutadiene	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
2-Hexanone	ND	---	0.227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Isopropylbenzene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
4-Isopropyltoluene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Methylene chloride	ND	---	0.113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	0.227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Naphthalene	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
n-Propylbenzene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Styrene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Tetrachloroethene (PCE)	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Toluene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Trichloroethene (TCE)	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Trichlorofluoromethane	ND	---	0.0453	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,2,4-Trimethylbenzene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Vinyl chloride	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
m,p-Xylene	ND	---	0.0227	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
o-Xylene	ND	---	0.0113	mg/kg dry	50	09/03/19 14:19	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:* *80-120 %*	*1*	*09/03/19 14:19*	*5035A/8260C*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*09/03/19 14:19*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*09/03/19 14:19*	*5035A/8260C*	
MW2-S1-30 (A9I0002-02)				**Matrix: Soil**		**Batch: 9090444**		
Acetone	ND	---	0.623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Acrylonitrile	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Benzene	ND	---	0.00623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Bromobenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Bromochloromethane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Bromodichloromethane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2-S1-30 (A9I0002-02)				**Matrix: Soil**		**Batch: 9090444**		
Bromoform	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Bromomethane	ND	---	0.312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
2-Butanone (MEK)	ND	---	0.312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
n-Butylbenzene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
sec-Butylbenzene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
tert-Butylbenzene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Carbon disulfide	ND	---	0.312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Carbon tetrachloride	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Chlorobenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Chloroethane	ND	---	0.312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Chloroform	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Chloromethane	ND	---	0.156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
2-Chlorotoluene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
4-Chlorotoluene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Dibromochloromethane	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Dibromomethane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Ethylbenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Hexachlorobutadiene	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
2-Hexanone	ND	---	0.312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Isopropylbenzene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
4-Isopropyltoluene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Methylene chloride	ND	---	0.156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2-S1-30 (A9I0002-02)				**Matrix: Soil**		**Batch: 9090444**		
4-Methyl-2-pentanone (MiBK)	ND	---	0.312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Naphthalene	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
n-Propylbenzene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Styrene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Tetrachloroethene (PCE)	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Toluene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Trichloroethene (TCE)	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Trichlorofluoromethane	ND	---	0.0623	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,2,4-Trimethylbenzene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Vinyl chloride	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
m,p-Xylene	ND	---	0.0312	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
o-Xylene	ND	---	0.0156	mg/kg dry	50	09/03/19 15:13	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*09/03/19 15:13*	*5035A/8260C*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*09/03/19 15:13*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*09/03/19 15:13*	*5035A/8260C*	
MW3-S1-36 (A9I0002-03RE1)				**Matrix: Soil**		**Batch: 9090488**		
Acetone	ND	---	0.612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Acrylonitrile	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Benzene	ND	---	0.00612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Bromobenzene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Bromochloromethane	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Bromodichloromethane	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Bromoform	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Bromomethane	ND	---	0.306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
2-Butanone (MEK)	ND	---	0.306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
n-Butylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
sec-Butylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
tert-Butylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3-S1-36 (A9I0002-03RE1)				**Matrix: Soil**		**Batch: 9090488**		
Carbon disulfide	ND	---	0.306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Carbon tetrachloride	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Chlorobenzene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Chloroethane	ND	---	0.306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Chloroform	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Chloromethane	ND	---	0.153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
2-Chlorotoluene	ND	---	0.153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	R-02
4-Chlorotoluene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Dibromochloromethane	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Dibromomethane	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Ethylbenzene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Hexachlorobutadiene	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
2-Hexanone	ND	---	0.306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Isopropylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
4-Isopropyltoluene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Methylene chloride	ND	---	0.153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	0.306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Naphthalene	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
n-Propylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	R-02
Styrene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3-S1-36 (A9I0002-03RE1)				**Matrix: Soil**		**Batch: 9090488**		
1,1,2,2-Tetrachloroethane	ND	---	1.53	mg/kg dry	50	09/04/19 19:10	5035A/8260C	R-02
Tetrachloroethene (PCE)	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Toluene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Trichloroethene (TCE)	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Trichlorofluoromethane	ND	---	0.0612	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,2,4-Trimethylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Vinyl chloride	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
m,p-Xylene	ND	---	0.0306	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
o-Xylene	ND	---	0.0153	mg/kg dry	50	09/04/19 19:10	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits: 80-120 %*	*1*	*09/04/19 19:10*	*5035A/8260C*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/04/19 19:10*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*09/04/19 19:10*	*5035A/8260C*	
MW4-S1-15 (A9I0002-04)				**Matrix: Soil**		**Batch: 9090444**		
1,2,4-Trimethylbenzene	**32.0**	---	1.71	mg/kg dry	2000	09/03/19 17:57	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*09/03/19 17:57*	*5035A/8260C*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/03/19 17:57*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*09/03/19 17:57*	*5035A/8260C*	
MW4-S1-15 (A9I0002-04RE1)				**Matrix: Soil**		**Batch: 9090488**		
Acetone	ND	---	1.71	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Acrylonitrile	ND	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Benzene	ND	---	0.0171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Bromobenzene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Bromochloromethane	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Bromodichloromethane	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Bromoform	ND	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Bromomethane	ND	---	0.853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
2-Butanone (MEK)	ND	---	0.853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
n-Butylbenzene	**1.77**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
sec-Butylbenzene	**2.54**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
tert-Butylbenzene	**0.154**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	**M-02**

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-S1-15 (A9I0002-04RE1)				**Matrix: Soil**		**Batch: 9090488**		
Carbon disulfide	ND	---	0.853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Carbon tetrachloride	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Chlorobenzene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Chloroethane	ND	---	0.853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Chloroform	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Chloromethane	ND	---	0.426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
2-Chlorotoluene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
4-Chlorotoluene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Dibromochloromethane	ND	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Dibromomethane	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Ethylbenzene	**0.579**	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Hexachlorobutadiene	ND	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
2-Hexanone	ND	---	0.853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Isopropylbenzene	**1.40**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
4-Isopropyltoluene	**2.45**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	**M-02**
Methylene chloride	ND	---	0.426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	0.853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Naphthalene	**0.433**	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
n-Propylbenzene	**4.16**	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Styrene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-S1-15 (A9I0002-04RE1)				**Matrix: Soil**		**Batch: 9090488**		
1,1,2,2-Tetrachloroethane	ND	---	0.341	mg/kg dry	100	09/04/19 20:04	5035A/8260C	R-02
Tetrachloroethene (PCE)	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Toluene	ND	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Trichloroethene (TCE)	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Trichlorofluoromethane	ND	---	0.171	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.597	mg/kg dry	100	09/04/19 20:04	5035A/8260C	R-02
1,3,5-Trimethylbenzene	**7.68**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
Vinyl chloride	ND	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
m,p-Xylene	**0.644**	---	0.0853	mg/kg dry	100	09/04/19 20:04	5035A/8260C	
o-Xylene	**0.0492**	---	0.0426	mg/kg dry	100	09/04/19 20:04	5035A/8260C	**M-02**
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*09/04/19 20:04*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/04/19 20:04*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*09/04/19 20:04*	*5035A/8260C*	
MW4-S2-39 (A9I0002-05)				**Matrix: Soil**		**Batch: 9090444**		
Acetone	ND	---	0.732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Acrylonitrile	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Benzene	ND	---	0.00732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Bromobenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Bromochloromethane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Bromodichloromethane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Bromoform	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Bromomethane	ND	---	0.366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
2-Butanone (MEK)	ND	---	0.366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
n-Butylbenzene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
sec-Butylbenzene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
tert-Butylbenzene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Carbon disulfide	ND	---	0.366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Carbon tetrachloride	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Chlorobenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Chloroethane	ND	---	0.366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Chloroform	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Chloromethane	ND	---	0.183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
2-Chlorotoluene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-S2-39 (A9I0002-05)				**Matrix: Soil**		**Batch: 9090444**		
4-Chlorotoluene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Dibromochloromethane	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Dibromomethane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Ethylbenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Hexachlorobutadiene	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
2-Hexanone	ND	---	0.366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Isopropylbenzene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
4-Isopropyltoluene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Methylene chloride	ND	---	0.183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	0.366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Naphthalene	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
n-Propylbenzene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Styrene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Tetrachloroethene (PCE)	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Toluene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-S2-39 (A9I0002-05)				**Matrix: Soil**		**Batch: 9090444**		
Trichloroethene (TCE)	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Trichlorofluoromethane	ND	---	0.0732	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,2,4-Trimethylbenzene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Vinyl chloride	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
m,p-Xylene	ND	---	0.0366	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
o-Xylene	ND	---	0.0183	mg/kg dry	50	09/03/19 15:40	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*09/03/19 15:40*	*5035A/8260C*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/03/19 15:40*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*09/03/19 15:40*	*5035A/8260C*	
MW5-S1-9 (A9I0002-06)				**Matrix: Soil**		**Batch: 9090444**		
Acetone	ND	---	56.3	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Acrylonitrile	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Benzene	ND	---	0.563	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Bromobenzene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Bromochloromethane	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Bromodichloromethane	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Bromoform	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Bromomethane	ND	---	28.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
2-Butanone (MEK)	ND	---	28.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
n-Butylbenzene	**25.9**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	**M-02**
sec-Butylbenzene	**43.4**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
tert-Butylbenzene	**3.54**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	**M-02**
Carbon disulfide	ND	---	28.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Carbon tetrachloride	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Chlorobenzene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Chloroethane	ND	---	28.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Chloroform	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Chloromethane	ND	---	14.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
2-Chlorotoluene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
4-Chlorotoluene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Dibromochloromethane	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	14.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Dibromomethane	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2-Dichlorobenzene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5-S1-9 (A9I0002-06)				**Matrix: Soil**		**Batch: 9090444**		
1,3-Dichlorobenzene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,4-Dichlorobenzene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Dichlorodifluoromethane	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1-Dichloroethane	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1-Dichloroethene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2-Dichloropropane	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,3-Dichloropropane	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
2,2-Dichloropropane	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1-Dichloropropene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Ethylbenzene	**3.19**	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Hexachlorobutadiene	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
2-Hexanone	ND	---	28.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Isopropylbenzene	**13.2**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
4-Isopropyltoluene	**43.6**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	**M-02**
Methylene chloride	ND	---	14.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	28.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Naphthalene	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
n-Propylbenzene	**43.7**	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Styrene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	R-02
Tetrachloroethene (PCE)	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Toluene	ND	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	14.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	14.1	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1,1-Trichloroethane	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,1,2-Trichloroethane	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Trichloroethene (TCE)	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Trichlorofluoromethane	ND	---	5.63	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,2,3-Trichloropropane	ND	---	25.3	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	R-02
1,2,4-Trimethylbenzene	**479**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
1,3,5-Trimethylbenzene	**147**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Vinyl chloride	ND	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5-S1-9 (A9I0002-06)				**Matrix: Soil**		**Batch: 9090444**		
m,p-Xylene	**7.81**	---	2.81	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
o-Xylene	**7.87**	---	1.41	mg/kg dry	2000	09/03/19 19:18	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*09/03/19 19:18*	*5035A/8260C*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/03/19 19:18*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*09/03/19 19:18*	*5035A/8260C*	
MW4-S3-34 (A9I0002-07RE1)				**Matrix: Soil**		**Batch: 9090488**		
Acetone	ND	---	1.40	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Acrylonitrile	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Benzene	ND	---	0.0140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Bromobenzene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Bromochloromethane	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Bromodichloromethane	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Bromoform	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Bromomethane	ND	---	0.702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
2-Butanone (MEK)	ND	---	0.702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
n-Butylbenzene	**0.232**	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
sec-Butylbenzene	**0.365**	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
tert-Butylbenzene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Carbon disulfide	ND	---	0.702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Carbon tetrachloride	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Chlorobenzene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Chloroethane	ND	---	0.702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Chloroform	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Chloromethane	ND	---	0.351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
2-Chlorotoluene	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	R-02
4-Chlorotoluene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Dibromochloromethane	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Dibromomethane	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-S3-34 (A9I0002-07RE1)				**Matrix: Soil**		**Batch: 9090488**		
cis-1,2-Dichloroethene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Ethylbenzene	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Hexachlorobutadiene	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
2-Hexanone	ND	---	0.702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Isopropylbenzene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
4-Isopropyltoluene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Methylene chloride	ND	---	0.351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	0.702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Naphthalene	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
n-Propylbenzene	**0.233**	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Styrene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	1.05	mg/kg dry	50	09/04/19 19:37	5035A/8260C	R-02
Tetrachloroethene (PCE)	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Toluene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Trichloroethene (TCE)	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Trichlorofluoromethane	ND	---	0.140	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,2,4-Trimethylbenzene	**0.110**	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
Vinyl chloride	ND	---	0.0351	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
m,p-Xylene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	
o-Xylene	ND	---	0.0702	mg/kg dry	50	09/04/19 19:37	5035A/8260C	R-02
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 109 %*		*Limits: 80-120 %*	*1*	*09/04/19 19:37*	*5035A/8260C*	
Toluene-d8 (Surr)			*94 %*	*80-120 %*	*1*	*09/04/19 19:37*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*105 %*	*80-120 %*	*1*	*09/04/19 19:37*	*5035A/8260C*	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090444**		
Acetone	ND	---	1.14	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Acrylonitrile	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Benzene	ND	---	0.0114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Bromobenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Bromochloromethane	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Bromodichloromethane	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Bromoform	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Bromomethane	ND	---	0.570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
2-Butanone (MEK)	ND	---	0.570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
n-Butylbenzene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
sec-Butylbenzene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
tert-Butylbenzene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Carbon disulfide	ND	---	0.570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Carbon tetrachloride	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Chlorobenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Chloroethane	ND	---	0.570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Chloroform	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Chloromethane	ND	---	0.285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
2-Chlorotoluene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
4-Chlorotoluene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Dibromochloromethane	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2-Dibromo-3-chloropropane	ND	---	0.285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2-Dibromoethane (EDB)	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Dibromomethane	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2-Dichlorobenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,3-Dichlorobenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,4-Dichlorobenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Dichlorodifluoromethane	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1-Dichloroethane	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2-Dichloroethane (EDC)	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1-Dichloroethene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
cis-1,2-Dichloroethene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
trans-1,2-Dichloroethene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2-Dichloropropane	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,3-Dichloropropane	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
2,2-Dichloropropane	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1-Dichloropropene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
cis-1,3-Dichloropropene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
trans-1,3-Dichloropropene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090444**		
Ethylbenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Hexachlorobutadiene	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
2-Hexanone	ND	---	0.570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Isopropylbenzene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
4-Isopropyltoluene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Methylene chloride	ND	---	0.285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	0.570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Naphthalene	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
n-Propylbenzene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Styrene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	R-02
Tetrachloroethene (PCE)	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Toluene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2,3-Trichlorobenzene	ND	---	0.285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2,4-Trichlorobenzene	ND	---	0.285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1,1-Trichloroethane	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,1,2-Trichloroethane	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Trichloroethene (TCE)	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Trichlorofluoromethane	ND	---	0.114	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2,3-Trichloropropane	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,2,4-Trimethylbenzene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
1,3,5-Trimethylbenzene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Vinyl chloride	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
m,p-Xylene	ND	---	0.0570	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
o-Xylene	ND	---	0.0285	mg/kg dry	50	09/03/19 16:08	5035A/8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits:*	*80-120 %*	*1*	*09/03/19 16:08*	*5035A/8260C*	
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*09/03/19 16:08*	*5035A/8260C*	
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*	*1*	*09/03/19 16:08*	*5035A/8260C*	

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1-S1-26 (A9I0002-01)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**89.1**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW2-S1-30 (A9I0002-02)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**82.1**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW3-S1-36 (A9I0002-03)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**85.4**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW4-S1-15 (A9I0002-04)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**75.2**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW4-S2-39 (A9I0002-05)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**88.8**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW5-S1-9 (A9I0002-06)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**75.4**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW4-S3-34 (A9I0002-07)				**Matrix: Soil**		**Batch: 9090468**		
% Solids	**94.7**	---	1.00	% by Weight	1	09/05/19 08:22	EPA 8000C	
MW5-S2-31 (A9I0002-08)				**Matrix: Soil**		**Batch: 9090496**		
% Solids	**85.0**	---	1.00	% by Weight	1	09/04/19 15:27	EPA 8000C	

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090729 - EPA 3546 (Fuels)							Soil					
Blank (9090729-BLK1)		Prepared: 09/11/19 12:56		Analyzed: 09/11/19 20:56								
NWTPH-Dx												
Diesel	ND	---	16.7	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	33.3	mg/kg wet	1	---	---	---	---	---	---	
Mineral Oil	ND	---	33.3	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9090729-BS1)		Prepared: 09/11/19 12:56		Analyzed: 09/11/19 21:17								
NWTPH-Dx												
Diesel	111	---	20.0	mg/kg wet	1	125	---	89	76 - 115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 95 %*		*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (9090729-DUP1)		Prepared: 09/11/19 12:56		Analyzed: 09/11/19 21:58								
QC Source Sample: MW1-S1-26 (A9I0002-01)												
NWTPH-Dx												
Diesel	ND	---	21.3	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	42.6	mg/kg dry	1	---	ND	---	---	---	30%	
Mineral Oil	ND	---	42.6	mg/kg dry	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Blank (9090444-BLK1)		Prepared: 09/03/19 11:00		Analyzed: 09/03/19 13:47								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery:*	*96 %*	*Limits:*	*50-150 %*		*Dilution:*	*1x*				
1,4-Difluorobenzene (Sur)			*92 %*		*50-150 %*			*"*				
LCS (9090444-BS2)		Prepared: 09/03/19 11:00		Analyzed: 09/03/19 13:20								
NWTPH-Gx (MS)												
Gasoline Range Organics	24.2	---	5.00	mg/kg wet	50	25.0	---	97	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery:*	*95 %*	*Limits:*	*50-150 %*		*Dilution:*	*1x*				
1,4-Difluorobenzene (Sur)			*95 %*		*50-150 %*			*"*				
Duplicate (9090444-DUP1)		Prepared: 08/28/19 10:04		Analyzed: 09/03/19 14:46								
QC Source Sample: MW1-S1-26 (A9I0002-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	2.05	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery:*	*108 %*	*Limits:*	*50-150 %*		*Dilution:*	*1x*				
1,4-Difluorobenzene (Sur)			*96 %*		*50-150 %*			*"*				

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Blank (9090444-BLK1)		Prepared: 09/03/19 11:00 Analyzed: 09/03/19 13:47										
5035A/8260C												
Acetone	ND	---	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Blank (9090444-BLK1)		Prepared: 09/03/19 11:00		Analyzed: 09/03/19 13:47								
1,2-Dichloropropane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Styrene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*					*Dilution: 1x*			

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Blank (9090444-BLK1)		Prepared: 09/03/19 11:00 Analyzed: 09/03/19 13:47										
Surr: Toluene-d8 (Surr)		*Recovery: 102 %*	*Limits: 80-120 %*		*Dilution: 1x*							
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*				*"*				
LCS (9090444-BS1)		Prepared: 09/03/19 11:00 Analyzed: 09/03/19 12:53										
5035A/8260C												
Acetone	2.12	---	1.00	mg/kg wet	50	2.00	---	106	80 - 120%	---	---	
Acrylonitrile	0.987	---	0.100	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Benzene	1.00	---	0.0100	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
Bromobenzene	0.971	---	0.0250	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
Bromochloromethane	1.01	---	0.0500	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
Bromodichloromethane	0.985	---	0.0500	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
Bromoform	0.974	---	0.100	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
Bromomethane	1.21	---	0.500	mg/kg wet	50	1.00	---	**121**	**80 - 120%**	---	---	Q-56
2-Butanone (MEK)	2.18	---	0.500	mg/kg wet	50	2.00	---	109	80 - 120%	---	---	
n-Butylbenzene	1.02	---	0.0500	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
sec-Butylbenzene	0.932	---	0.0500	mg/kg wet	50	1.00	---	93	80 - 120%	---	---	
tert-Butylbenzene	0.937	---	0.0500	mg/kg wet	50	1.00	---	94	80 - 120%	---	---	
Carbon disulfide	0.914	---	0.500	mg/kg wet	50	1.00	---	91	80 - 120%	---	---	
Carbon tetrachloride	1.03	---	0.0500	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
Chlorobenzene	0.959	---	0.0250	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
Chloroethane	1.08	---	0.500	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
Chloroform	0.977	---	0.0500	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
Chloromethane	1.06	---	0.250	mg/kg wet	50	1.00	---	106	80 - 120%	---	---	
2-Chlorotoluene	0.961	---	0.0500	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
4-Chlorotoluene	0.941	---	0.0500	mg/kg wet	50	1.00	---	94	80 - 120%	---	---	
Dibromochloromethane	1.04	---	0.100	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	0.950	---	0.250	mg/kg wet	50	1.00	---	95	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80 - 120%	---	---	
Dibromomethane	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80 - 120%	---	---	
1,2-Dichlorobenzene	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
1,3-Dichlorobenzene	0.995	---	0.0250	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
1,4-Dichlorobenzene	0.987	---	0.0250	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Dichlorodifluoromethane	1.35	---	0.100	mg/kg wet	50	1.00	---	**135**	**80 - 120%**	---	---	E-05, Q-56
1,1-Dichloroethane	0.988	---	0.0250	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
LCS (9090444-BS1)		Prepared: 09/03/19 11:00		Analyzed: 09/03/19 12:53								
1,2-Dichloroethane (EDC)	1.08	---	0.0250	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
1,1-Dichloroethene	1.02	---	0.0250	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
cis-1,2-Dichloroethene	1.07	---	0.0250	mg/kg wet	50	1.00	---	107	80 - 120%	---	---	
trans-1,2-Dichloroethene	1.08	---	0.0250	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
1,2-Dichloropropane	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
1,3-Dichloropropane	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80 - 120%	---	---	
2,2-Dichloropropane	1.16	---	0.0500	mg/kg wet	50	1.00	---	116	80 - 120%	---	---	
1,1-Dichloropropene	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80 - 120%	---	---	
cis-1,3-Dichloropropene	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80 - 120%	---	---	
trans-1,3-Dichloropropene	1.03	---	0.0500	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
Ethylbenzene	0.935	---	0.0250	mg/kg wet	50	1.00	---	94	80 - 120%	---	---	
Hexachlorobutadiene	1.01	---	0.100	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
2-Hexanone	2.08	---	0.500	mg/kg wet	50	2.00	---	104	80 - 120%	---	---	
Isopropylbenzene	0.942	---	0.0500	mg/kg wet	50	1.00	---	94	80 - 120%	---	---	
4-Isopropyltoluene	0.968	---	0.0500	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
Methylene chloride	0.960	---	0.250	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
4-Methyl-2-pentanone (MiBK)	2.08	---	0.500	mg/kg wet	50	2.00	---	104	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	1.01	---	0.0500	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
Naphthalene	1.07	---	0.100	mg/kg wet	50	1.00	---	107	80 - 120%	---	---	
n-Propylbenzene	0.966	---	0.0250	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
Styrene	0.956	---	0.0500	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	1.00	---	0.0250	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	0.978	---	0.0500	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
Tetrachloroethene (PCE)	1.07	---	0.0250	mg/kg wet	50	1.00	---	107	80 - 120%	---	---	
Toluene	0.963	---	0.0500	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
1,2,3-Trichlorobenzene	1.04	---	0.250	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
1,2,4-Trichlorobenzene	1.05	---	0.250	mg/kg wet	50	1.00	---	105	80 - 120%	---	---	
1,1,1-Trichloroethane	0.987	---	0.0250	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
1,1,2-Trichloroethane	1.00	---	0.0250	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
Trichloroethene (TCE)	1.04	---	0.0250	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
Trichlorofluoromethane	1.19	---	0.100	mg/kg wet	50	1.00	---	119	80 - 120%	---	---	
1,2,3-Trichloropropane	1.08	---	0.0500	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
1,2,4-Trimethylbenzene	0.947	---	0.0500	mg/kg wet	50	1.00	---	95	80 - 120%	---	---	
1,3,5-Trimethylbenzene	0.916	---	0.0500	mg/kg wet	50	1.00	---	92	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
LCS (9090444-BS1)		Prepared: 09/03/19 11:00		Analyzed: 09/03/19 12:53								
Vinyl chloride	1.13	---	0.0250	mg/kg wet	50	1.00	---	113	80 - 120%	---	---	
m,p-Xylene	1.93	---	0.0500	mg/kg wet	50	2.00	---	97	80 - 120%	---	---	
o-Xylene	0.919	---	0.0250	mg/kg wet	50	1.00	---	92	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (9090444-DUP1)		Prepared: 08/28/19 10:04		Analyzed: 09/03/19 14:46								
QC Source Sample: MW1-S1-26 (A9I0002-01)												
5035A/8260C												
Acetone	ND	---	0.410	mg/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	0.00410	mg/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	---	0.205	mg/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	0.205	mg/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	0.205	mg/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	---	0.205	mg/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	---	0.103	mg/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	0.103	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Duplicate (9090444-DUP1)		Prepared: 08/28/19 10:04 Analyzed: 09/03/19 14:46										
QC Source Sample: MW1-S1-26 (A9I0002-01)												
1,2-Dichlorobenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	---	0.205	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	---	0.103	mg/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	0.205	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	0.103	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	0.103	mg/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Duplicate (9090444-DUP1)		Prepared: 08/28/19 10:04	Analyzed: 09/03/19 14:46									
QC Source Sample: MW1-S1-26 (A9I0002-01)												
1,1,2-Trichloroethane	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	0.0410	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	0.0205	mg/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.0103	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*			*"*				
Matrix Spike (9090444-MS1)		Prepared: 08/29/19 15:15	Analyzed: 09/03/19 16:35									
QC Source Sample: MW5-S2-31 (A9I0002-08)												
5035A/8260C												
Acetone	2.62	---	1.14	mg/kg dry	50	2.28	ND	115	36 - 164%	---	---	
Acrylonitrile	1.18	---	0.114	mg/kg dry	50	1.14	ND	104	65 - 134%	---	---	
Benzene	1.24	---	0.0114	mg/kg dry	50	1.14	ND	109	77 - 121%	---	---	
Bromobenzene	1.19	---	0.0285	mg/kg dry	50	1.14	ND	104	78 - 121%	---	---	
Bromochloromethane	1.27	---	0.0570	mg/kg dry	50	1.14	ND	112	78 - 125%	---	---	
Bromodichloromethane	1.11	---	0.0570	mg/kg dry	50	1.14	ND	97	75 - 127%	---	---	
Bromoform	1.12	---	0.114	mg/kg dry	50	1.14	ND	98	67 - 132%	---	---	
Bromomethane	1.57	---	0.570	mg/kg dry	50	1.14	ND	138	53 - 143%	---	---	Q-54
2-Butanone (MEK)	2.61	---	0.570	mg/kg dry	50	2.28	ND	114	51 - 148%	---	---	
n-Butylbenzene	1.16	---	0.0570	mg/kg dry	50	1.14	ND	102	70 - 128%	---	---	
sec-Butylbenzene	1.11	---	0.0570	mg/kg dry	50	1.14	ND	97	73 - 126%	---	---	
tert-Butylbenzene	1.18	---	0.0570	mg/kg dry	50	1.14	ND	104	73 - 125%	---	---	
Carbon disulfide	1.18	---	0.570	mg/kg dry	50	1.14	ND	104	63 - 132%	---	---	
Carbon tetrachloride	1.25	---	0.0570	mg/kg dry	50	1.14	ND	110	70 - 135%	---	---	
Chlorobenzene	1.19	---	0.0285	mg/kg dry	50	1.14	ND	103	79 - 120%	---	---	
Chloroethane	1.53	---	0.570	mg/kg dry	50	1.14	ND	134	59 - 139%	---	---	
Chloroform	1.20	---	0.0570	mg/kg dry	50	1.14	ND	105	78 - 123%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Matrix Spike (9090444-MS1)		Prepared: 08/29/19 15:15		Analyzed: 09/03/19 16:35								
QC Source Sample: MW5-S2-31 (A9I0002-08)												
Chloromethane	1.39	---	0.285	mg/kg dry	50	1.14	ND	122	50 - 136%	---	---	
2-Chlorotoluene	1.63	---	0.0570	mg/kg dry	50	1.14	ND	**140**	**75 - 122%**	---	---	Q-02
4-Chlorotoluene	1.17	---	0.0570	mg/kg dry	50	1.14	ND	103	72 - 124%	---	---	
Dibromochloromethane	1.12	---	0.114	mg/kg dry	50	1.14	ND	98	74 - 126%	---	---	
1,2-Dibromo-3-chloropropane	0.971	---	0.285	mg/kg dry	50	1.14	ND	85	61 - 132%	---	---	
1,2-Dibromoethane (EDB)	1.21	---	0.0570	mg/kg dry	50	1.14	ND	106	78 - 122%	---	---	
Dibromomethane	1.24	---	0.0570	mg/kg dry	50	1.14	ND	109	78 - 125%	---	---	
1,2-Dichlorobenzene	1.20	---	0.0285	mg/kg dry	50	1.14	ND	105	78 - 121%	---	---	
1,3-Dichlorobenzene	1.19	---	0.0285	mg/kg dry	50	1.14	ND	104	77 - 121%	---	---	
1,4-Dichlorobenzene	1.15	---	0.0285	mg/kg dry	50	1.14	ND	101	75 - 120%	---	---	
Dichlorodifluoromethane	1.82	---	0.114	mg/kg dry	50	1.14	ND	**159**	**29 - 149%**	---	---	E-05, Q-54a
1,1-Dichloroethane	1.33	---	0.0285	mg/kg dry	50	1.14	ND	116	76 - 125%	---	---	
1,2-Dichloroethane (EDC)	1.28	---	0.0285	mg/kg dry	50	1.14	ND	113	73 - 128%	---	---	
1,1-Dichloroethene	1.34	---	0.0285	mg/kg dry	50	1.14	ND	118	70 - 131%	---	---	
cis-1,2-Dichloroethene	1.35	---	0.0285	mg/kg dry	50	1.14	ND	118	77 - 123%	---	---	
trans-1,2-Dichloroethene	1.36	---	0.0285	mg/kg dry	50	1.14	ND	120	74 - 125%	---	---	
1,2-Dichloropropane	1.23	---	0.0285	mg/kg dry	50	1.14	ND	108	76 - 123%	---	---	
1,3-Dichloropropane	1.22	---	0.0570	mg/kg dry	50	1.14	ND	107	77 - 121%	---	---	
2,2-Dichloropropane	1.37	---	0.0570	mg/kg dry	50	1.14	ND	121	67 - 133%	---	---	
1,1-Dichloropropene	1.32	---	0.0570	mg/kg dry	50	1.14	ND	116	76 - 125%	---	---	
cis-1,3-Dichloropropene	1.20	---	0.0570	mg/kg dry	50	1.14	ND	105	74 - 126%	---	---	
trans-1,3-Dichloropropene	1.14	---	0.0570	mg/kg dry	50	1.14	ND	100	71 - 130%	---	---	
Ethylbenzene	1.15	---	0.0285	mg/kg dry	50	1.14	ND	101	76 - 122%	---	---	
Hexachlorobutadiene	1.43	---	0.114	mg/kg dry	50	1.14	ND	125	61 - 135%	---	---	
2-Hexanone	2.53	---	0.570	mg/kg dry	50	2.28	ND	111	53 - 145%	---	---	
Isopropylbenzene	1.24	---	0.0570	mg/kg dry	50	1.14	ND	108	68 - 134%	---	---	
4-Isopropyltoluene	1.14	---	0.0570	mg/kg dry	50	1.14	ND	100	73 - 127%	---	---	
Methylene chloride	1.24	---	0.285	mg/kg dry	50	1.14	ND	109	70 - 128%	---	---	
4-Methyl-2-pentanone (MiBK)	2.50	---	0.570	mg/kg dry	50	2.28	ND	109	65 - 135%	---	---	
Methyl tert-butyl ether (MTBE)	1.21	---	0.0570	mg/kg dry	50	1.14	ND	106	73 - 125%	---	---	
Naphthalene	1.25	---	0.114	mg/kg dry	50	1.14	ND	109	62 - 129%	---	---	
n-Propylbenzene	1.19	---	0.0285	mg/kg dry	50	1.14	ND	105	73 - 125%	---	---	
Styrene	1.29	---	0.0570	mg/kg dry	50	1.14	ND	113	76 - 124%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090444 - EPA 5035A							**Soil**					
Matrix Spike (9090444-MS1)		Prepared: 08/29/19 15:15		Analyzed: 09/03/19 16:35								
QC Source Sample: MW5-S2-31 (A9I0002-08)												
1,1,1,2-Tetrachloroethane	1.08	---	0.0285	mg/kg dry	50	1.14	ND	94	78 - 125%	---	---	
1,1,2,2-Tetrachloroethane	6.65	---	0.0570	mg/kg dry	50	1.14	ND	**561**	**70 - 124%**	---	---	Q-02
Tetrachloroethene (PCE)	1.31	---	0.0285	mg/kg dry	50	1.14	ND	115	73 - 128%	---	---	
Toluene	1.18	---	0.0570	mg/kg dry	50	1.14	ND	104	77 - 121%	---	---	
1,2,3-Trichlorobenzene	1.21	---	0.285	mg/kg dry	50	1.14	ND	106	66 - 130%	---	---	
1,2,4-Trichlorobenzene	1.22	---	0.285	mg/kg dry	50	1.14	ND	107	67 - 129%	---	---	
1,1,1-Trichloroethane	1.23	---	0.0285	mg/kg dry	50	1.14	ND	108	73 - 130%	---	---	
1,1,2-Trichloroethane	1.15	---	0.0285	mg/kg dry	50	1.14	ND	101	78 - 121%	---	---	
Trichloroethene (TCE)	1.30	---	0.0285	mg/kg dry	50	1.14	ND	114	77 - 123%	---	---	
Trichlorofluoromethane	1.58	---	0.114	mg/kg dry	50	1.14	ND	139	62 - 140%	---	---	
1,2,3-Trichloropropane	1.88	---	0.0570	mg/kg dry	50	1.14	ND	**165**	**73 - 125%**	---	---	Q-02
1,2,4-Trimethylbenzene	1.11	---	0.0570	mg/kg dry	50	1.14	ND	97	75 - 123%	---	---	
1,3,5-Trimethylbenzene	1.06	---	0.0570	mg/kg dry	50	1.14	ND	93	73 - 124%	---	---	
Vinyl chloride	1.50	---	0.0285	mg/kg dry	50	1.14	ND	132	56 - 135%	---	---	
m,p-Xylene	2.45	---	0.0570	mg/kg dry	50	2.28	ND	107	77 - 124%	---	---	
o-Xylene	1.29	---	0.0285	mg/kg dry	50	1.14	ND	111	77 - 123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090488 - EPA 5035A							**Soil**					
Blank (9090488-BLK1)		Prepared: 09/04/19 13:00 Analyzed: 09/04/19 14:09										
5035A/8260C												
Acetone	ND	---	0.667	mg/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Bromobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090488 - EPA 5035A							**Soil**					
Blank (9090488-BLK1)		Prepared: 09/04/19 13:00		Analyzed: 09/04/19 14:09								
1,2-Dichloropropane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	0.333	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Styrene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.167	mg/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*					*Dilution: 1x*			

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090488 - EPA 5035A									Soil			
Blank (9090488-BLK1)			Prepared: 09/04/19 13:00 Analyzed: 09/04/19 14:09									
Surr: Toluene-d8 (Surr)			*Recovery: 100 %*	*Limits: 80-120 %*					*Dilution: 1x*			
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*					*"*			
LCS (9090488-BS1)			Prepared: 09/04/19 13:00 Analyzed: 09/04/19 13:15									
5035A/8260C												
Acetone	2.12	---	1.00	mg/kg wet	50	2.00	---	106	80 - 120%	---	---	
Acrylonitrile	0.991	---	0.100	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Benzene	1.04	---	0.0100	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
Bromobenzene	0.999	---	0.0250	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
Bromochloromethane	1.03	---	0.0500	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
Bromodichloromethane	0.904	---	0.0500	mg/kg wet	50	1.00	---	90	80 - 120%	---	---	
Bromoform	0.859	---	0.100	mg/kg wet	50	1.00	---	86	80 - 120%	---	---	
Bromomethane	1.23	---	0.500	mg/kg wet	50	1.00	---	**123**	**80 - 120%**	---	---	Q-56
2-Butanone (MEK)	2.14	---	0.500	mg/kg wet	50	2.00	---	107	80 - 120%	---	---	
n-Butylbenzene	1.03	---	0.0500	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
sec-Butylbenzene	0.960	---	0.0500	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
tert-Butylbenzene	0.957	---	0.0500	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
Carbon disulfide	0.928	---	0.500	mg/kg wet	50	1.00	---	93	80 - 120%	---	---	
Carbon tetrachloride	0.993	---	0.0500	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Chlorobenzene	0.982	---	0.0250	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
Chloroethane	1.07	---	0.500	mg/kg wet	50	1.00	---	107	80 - 120%	---	---	
Chloroform	0.991	---	0.0500	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Chloromethane	1.14	---	0.250	mg/kg wet	50	1.00	---	114	80 - 120%	---	---	
2-Chlorotoluene	1.00	---	0.0500	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
4-Chlorotoluene	0.971	---	0.0500	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
Dibromochloromethane	0.900	---	0.100	mg/kg wet	50	1.00	---	90	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	0.846	---	0.250	mg/kg wet	50	1.00	---	85	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	1.00	---	0.0500	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
Dibromomethane	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80 - 120%	---	---	
1,2-Dichlorobenzene	1.04	---	0.0250	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
1,3-Dichlorobenzene	1.02	---	0.0250	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
1,4-Dichlorobenzene	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
Dichlorodifluoromethane	1.44	---	0.100	mg/kg wet	50	1.00	---	**144**	**80 - 120%**	---	---	E-05, Q-56
1,1-Dichloroethane	0.989	---	0.0250	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090488 - EPA 5035A							**Soil**					
LCS (9090488-BS1)		Prepared: 09/04/19 13:00		Analyzed: 09/04/19 13:15								
1,2-Dichloroethane (EDC)	1.08	---	0.0250	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
1,1-Dichloroethene	1.09	---	0.0250	mg/kg wet	50	1.00	---	109	80 - 120%	---	---	
cis-1,2-Dichloroethene	1.07	---	0.0250	mg/kg wet	50	1.00	---	107	80 - 120%	---	---	
trans-1,2-Dichloroethene	1.13	---	0.0250	mg/kg wet	50	1.00	---	113	80 - 120%	---	---	
1,2-Dichloropropane	1.03	---	0.0250	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
1,3-Dichloropropane	1.04	---	0.0500	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
2,2-Dichloropropane	1.20	---	0.0500	mg/kg wet	50	1.00	---	120	80 - 120%	---	---	
1,1-Dichloropropene	1.09	---	0.0500	mg/kg wet	50	1.00	---	109	80 - 120%	---	---	
cis-1,3-Dichloropropene	1.00	---	0.0500	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
trans-1,3-Dichloropropene	0.982	---	0.0500	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
Ethylbenzene	0.972	---	0.0250	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
Hexachlorobutadiene	1.01	---	0.100	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
2-Hexanone	2.02	---	0.500	mg/kg wet	50	2.00	---	101	80 - 120%	---	---	
Isopropylbenzene	0.976	---	0.0500	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
4-Isopropyltoluene	0.986	---	0.0500	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Methylene chloride	1.06	---	0.250	mg/kg wet	50	1.00	---	106	80 - 120%	---	---	
4-Methyl-2-pentanone (MiBK)	2.04	---	0.500	mg/kg wet	50	2.00	---	102	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	1.00	---	0.0500	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
Naphthalene	1.08	---	0.100	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
n-Propylbenzene	0.999	---	0.0250	mg/kg wet	50	1.00	---	100	80 - 120%	---	---	
Styrene	0.980	---	0.0500	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	0.932	---	0.0250	mg/kg wet	50	1.00	---	93	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	0.939	---	0.0500	mg/kg wet	50	1.00	---	94	80 - 120%	---	---	
Tetrachloroethene (PCE)	1.10	---	0.0250	mg/kg wet	50	1.00	---	110	80 - 120%	---	---	
Toluene	0.975	---	0.0500	mg/kg wet	50	1.00	---	97	80 - 120%	---	---	
1,2,3-Trichlorobenzene	1.05	---	0.250	mg/kg wet	50	1.00	---	105	80 - 120%	---	---	
1,2,4-Trichlorobenzene	1.07	---	0.250	mg/kg wet	50	1.00	---	107	80 - 120%	---	---	
1,1,1-Trichloroethane	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
1,1,2-Trichloroethane	0.984	---	0.0250	mg/kg wet	50	1.00	---	98	80 - 120%	---	---	
Trichloroethene (TCE)	1.08	---	0.0250	mg/kg wet	50	1.00	---	108	80 - 120%	---	---	
Trichlorofluoromethane	1.18	---	0.100	mg/kg wet	50	1.00	---	118	80 - 120%	---	---	
1,2,3-Trichloropropane	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80 - 120%	---	---	
1,2,4-Trimethylbenzene	0.963	---	0.0500	mg/kg wet	50	1.00	---	96	80 - 120%	---	---	
1,3,5-Trimethylbenzene	0.932	---	0.0500	mg/kg wet	50	1.00	---	93	80 - 120%	---	---	

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090488 - EPA 5035A							**Soil**					
LCS (9090488-BS1)		Prepared: 09/04/19 13:00 Analyzed: 09/04/19 13:15										
Vinyl chloride	1.20	---	0.0250	mg/kg wet	50	1.00	---	120	80 - 120%	---	---	
m,p-Xylene	1.99	---	0.0500	mg/kg wet	50	2.00	---	100	80 - 120%	---	---	
o-Xylene	0.952	---	0.0250	mg/kg wet	50	1.00	---	95	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*99 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*			*"*					

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090468 - Total Solids (Dry Weight)							**Soil**					

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9090496 - Total Solids (Dry Weight)								Soil				
Duplicate (9090496-DUP1)		Prepared: 09/04/19 14:06		Analyzed: 09/04/19 15:27								
QC Source Sample: MW5-S2-31 (A9I0002-08)												
EPA 8000C												
% Solids	**87.7**	---	1.00	% by Weight	1	---	85.0	---	---	3	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9090729							
A9I0002-01	Soil	NWTPH-Dx	08/28/19 10:04	09/11/19 12:59	10.86g/5mL	10g/5mL	0.92
A9I0002-02	Soil	NWTPH-Dx	08/28/19 14:30	09/11/19 12:59	10.46g/5mL	10g/5mL	0.96
A9I0002-03	Soil	NWTPH-Dx	08/29/19 09:40	09/11/19 12:59	10.36g/5mL	10g/5mL	0.97
A9I0002-04RE1	Soil	NWTPH-Dx	08/29/19 12:10	09/11/19 12:59	10.37g/5mL	10g/5mL	0.96
A9I0002-05	Soil	NWTPH-Dx	08/29/19 12:45	09/11/19 12:59	11.19g/5mL	10g/5mL	0.89
A9I0002-06	Soil	NWTPH-Dx	08/29/19 13:45	09/11/19 12:59	10.49g/5mL	10g/5mL	0.95
A9I0002-07	Soil	NWTPH-Dx	08/29/19 13:00	09/11/19 12:59	10.89g/5mL	10g/5mL	0.92
A9I0002-08	Soil	NWTPH-Dx	08/29/19 15:15	09/11/19 12:59	10.68g/5mL	10g/5mL	0.94

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9090444							
A9I0002-01	Soil	NWTPH-Gx (MS)	08/28/19 10:04	08/28/19 10:04	16.98g/5mL	5g/5mL	0.29
A9I0002-02	Soil	NWTPH-Gx (MS)	08/28/19 14:30	08/28/19 14:30	15.03g/5mL	5g/5mL	0.33
A9I0002-03	Soil	NWTPH-Gx (MS)	08/29/19 09:40	08/29/19 09:40	13.27g/5mL	5g/5mL	0.38
A9I0002-04	Soil	NWTPH-Gx (MS)	08/29/19 12:10	08/29/19 12:10	12.7g/5mL	5g/5mL	0.39
A9I0002-05	Soil	NWTPH-Gx (MS)	08/29/19 12:45	08/29/19 12:45	9.31g/5mL	5g/5mL	0.54
A9I0002-06	Soil	NWTPH-Gx (MS)	08/29/19 13:45	08/29/19 13:45	6.14g/5mL	5g/5mL	0.81
A9I0002-07	Soil	NWTPH-Gx (MS)	08/29/19 13:00	08/29/19 13:00	3.92g/5mL	5g/5mL	1.28
A9I0002-08	Soil	NWTPH-Gx (MS)	08/29/19 15:15	08/29/19 15:15	6.11g/5mL	5g/5mL	0.82

Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9090444							
A9I0002-01	Soil	5035A/8260C	08/28/19 10:04	08/28/19 10:04	16.98g/5mL	5g/5mL	0.29
A9I0002-02	Soil	5035A/8260C	08/28/19 14:30	08/28/19 14:30	15.03g/5mL	5g/5mL	0.33
A9I0002-04	Soil	5035A/8260C	08/29/19 12:10	08/29/19 12:10	12.7g/5mL	5g/5mL	0.39
A9I0002-05	Soil	5035A/8260C	08/29/19 12:45	08/29/19 12:45	9.31g/5mL	5g/5mL	0.54
A9I0002-06	Soil	5035A/8260C	08/29/19 13:45	08/29/19 13:45	6.14g/5mL	5g/5mL	0.81
A9I0002-08	Soil	5035A/8260C	08/29/19 15:15	08/29/19 15:15	6.11g/5mL	5g/5mL	0.82
Batch: 9090488							
A9I0002-03RE1	Soil	5035A/8260C	08/29/19 09:40	08/29/19 09:40	13.27g/5mL	5g/5mL	0.38

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9I0002-04RE1	Soil	5035A/8260C	08/29/19 12:10	08/29/19 12:10	12.7g/5mL	5g/5mL	0.39
A9I0002-07RE1	Soil	5035A/8260C	08/29/19 13:00	08/29/19 13:00	3.92g/5mL	5g/5mL	1.28

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9090468							
A9I0002-01	Soil	EPA 8000C	08/28/19 10:04	09/04/19 08:09			NA
A9I0002-02	Soil	EPA 8000C	08/28/19 14:30	09/04/19 08:09			NA
A9I0002-03	Soil	EPA 8000C	08/29/19 09:40	09/04/19 08:09			NA
A9I0002-04	Soil	EPA 8000C	08/29/19 12:10	09/04/19 08:09			NA
A9I0002-05	Soil	EPA 8000C	08/29/19 12:45	09/04/19 08:09			NA
A9I0002-06	Soil	EPA 8000C	08/29/19 13:45	09/04/19 08:09			NA
A9I0002-07	Soil	EPA 8000C	08/29/19 13:00	09/04/19 08:09			NA
Batch: 9090496							
A9I0002-08	Soil	EPA 8000C	08/29/19 15:15	09/04/19 14:06			NA

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

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E-05	Estimated Result. Initial Calibration Verification (ICV) failed high. No affect on non-detect results.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
F-18	Result for Diesel (Diesel Range Organics, C12-C24) is due to overlap from Gasoline or a Gasoline Range product.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +1%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +15%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-08	TPH-Gx Surrogate recovery cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract. See 8260 results for accurate Surrogate recovery.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Kevin J. Friscia, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Kevin J. Friscia, Project Manager

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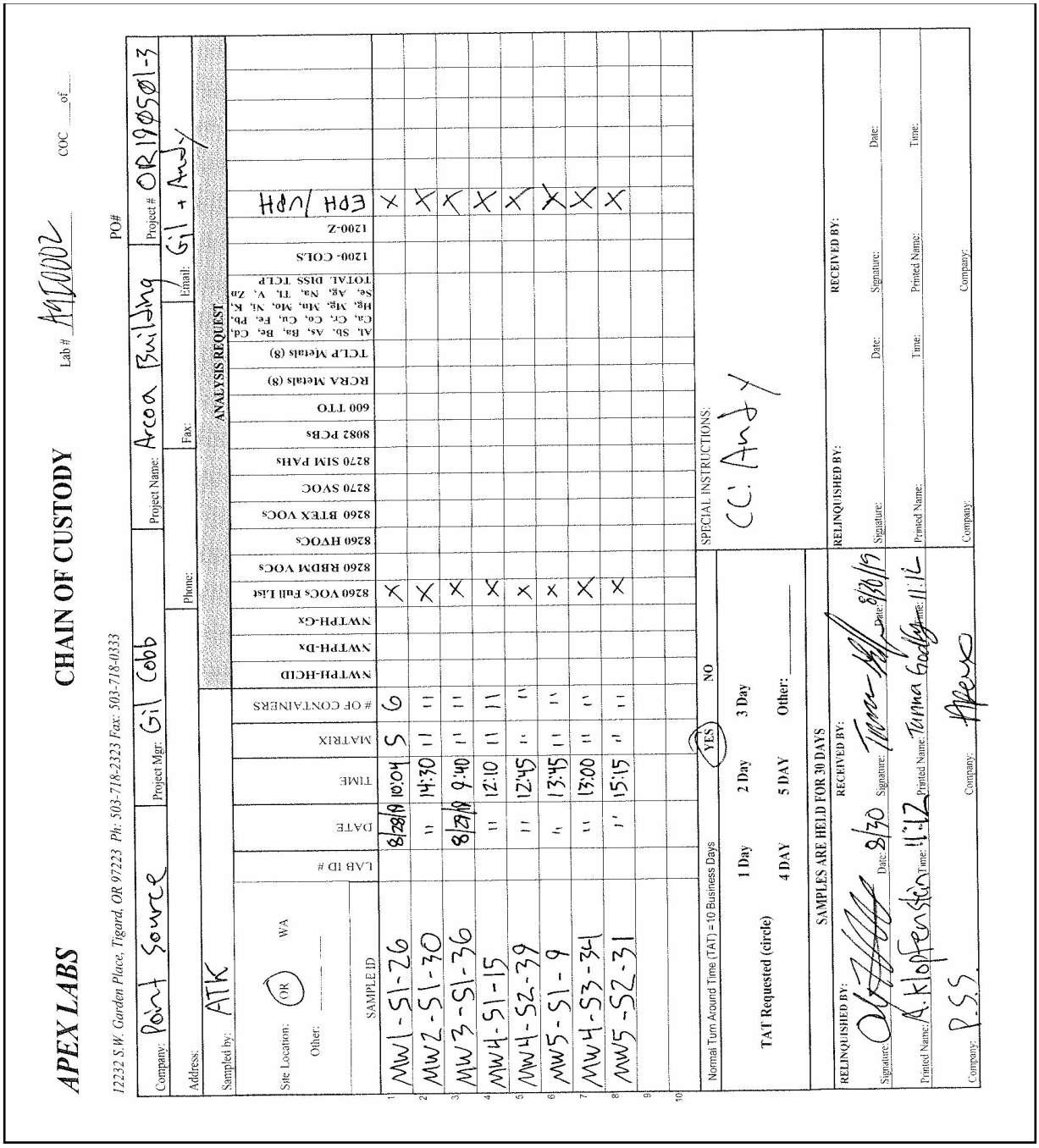

APEX LABS

CHAIN OF CUSTODY

Lab # A9I0002 COC ___ of ___

12232 S.W. Garden Place, Tigard, OR 97223 Ph. 503-718-2323 Fax: 503-718-0333

PO#

Company: Point Source | Project Mgr: Gil Cobb | Project Name: Arcoa Building | Project #: OR190501-3

Address: | Phone: | Fax: | Email: Gil + Andy

Sampled by: ATK

Site Location: OR WA

Other: ____

ANALYSIS REQUEST

#	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z	EDH / DRH
1	MW1-S1-26		8/28/19	10:04	S	6				X													X
2	MW2-S1-30		"	14:30	"	"				X													X
3	MW3-S1-36		8/28/19	9:40	"	"				X													X
4	MW4-S1-15		"	12:10	"	"				X													X
5	MW4-S2-39		"	12:45	"	"				X													X
6	MW5-S1-9		"	13:45	"	"				X													X
7	MW4-S3-34		"	13:00	"	"				X													X
8	MW5-S2-31		"	15:15	"	"				X													X
9																							
10																							

Normal Turn Around Time (TAT) = 10 Business Days — (YES) NO

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 4 DAY | 5 DAY | Other: ____

SPECIAL INSTRUCTIONS: CC: Andy

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: | Printed Name: | Company: | Date: | Time:

RECEIVED BY: Signature: | Printed Name: | Company: | Date: | Time:

RELINQUISHED BY: Signature: Date: 8/30 | Printed Name: A. Kloffenstein Time: 11:42 | Company: P.S.S.

RECEIVED BY: Signature: Tiana Date: 8/30/19 | Printed Name: Tiana Godfrey Time: 11:42 | Company: Apex

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9I0002 - 10 03 19 1636**

APEX LABS COOLER RECEIPT FORM

Client: Point Source Element WO#: A9I0002

Project/Project #: Arcoa Building / OR190501-3

Delivery Info:

Date/time received: 8/30/19 @ 11:12 By: TMC

Delivered by: Apex____Client_X_ESS____FedEx____UPS____Swift___Senvoy ___SDS___Other_____

Cooler Inspection Date/time inspected: 8/30/19 @ 11 12 By: TMC

Chain of Custody included? Yes X No ___ Custody seals? Yes_____ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.3						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel and Real						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 9/3/19 @ 8:25 By: KMS

All samples intact? Yes X No ___ Comments:

Bottle labels/COCs agree? Yes ___ No X Comments: No T on 40z Jars on MW1-51-26, No T on the rest of cants. ID on MW5-42-31, MW4-52-39 *

COC/container discrepancies form initiated? Yes X No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X

Comments:

Additional information: On 4 MeOH vials used 8/29/30.

Labeled by: Witness: Cooler Inspected by: TMC See Project Contact Form: Y

Apex Laboratories

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Kevin J. Friscia, Project Manager

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Laboratories
Kevin Friscia
6700 SW Sandburg St
Tigard, OR 97223

RE: A9I0002
Work Order Number: 1909037

October 03, 2019

Attention Kevin Friscia:

Fremont Analytical, Inc. received 8 sample(s) on 9/5/2019 for the analyses presented in the following report.

Extractable Petroleum Hydrocarbons by NWEPH
Sample Moisture (Percent Moisture)
Volatile Petroleum Hydrocarbons by NWVPH

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: Apex Laboratories
Project: A9I0002
Work Order: 1909037

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1909037-001	MW1-S1-26	08/28/2019 10:04 AM	09/05/2019 9:46 AM
1909037-002	MW2-S1-30	08/28/2019 2:30 PM	09/05/2019 9:46 AM
1909037-003	MW3-S1-36	08/29/2019 9:40 AM	09/05/2019 9:46 AM
1909037-004	MW4-S1-15	08/29/2019 12:10 PM	09/05/2019 9:46 AM
1909037-005	MW4-S2-39	08/29/2019 12:45 PM	09/05/2019 9:46 AM
1909037-006	MW5-S1-9	08/29/2019 1:45 PM	09/05/2019 9:46 AM
1909037-007	MW4-S3-34	08/29/2019 1:00 PM	09/05/2019 9:46 AM
1909037-008	MW5-S2-31	08/29/2019 3:15 PM	09/05/2019 9:46 AM

Case Narrative

WO#: **1909037**
Date: **10/3/2019**

CLIENT: Apex Laboratories
Project: A9I0002

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

VPH - Volatile Organic Compound detections should be confirmed by GCMS.

10/3/19: Revision 1 includes dilution data for MW5-S1-9.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Client: Apex Laboratories
Collection Date: 8/28/2019 10:04:00 AM
Project: A9I0002
Lab ID: 1909037-001
Matrix: Soil
Client Sample ID: **MW1-S1-26**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	ND	21.6	*	mg/Kg-dry	1	10/1/2019 3:11:00 PM
Aliphatic Hydrocarbon (C10-C12)	ND	10.8		mg/Kg-dry	1	10/1/2019 3:11:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	10.8		mg/Kg-dry	1	10/1/2019 3:11:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	10.8		mg/Kg-dry	1	10/1/2019 3:11:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	10.8		mg/Kg-dry	1	10/1/2019 3:11:00 PM
Aromatic Hydrocarbon (C8-C10)	ND	10.8	*	mg/Kg-dry	1	10/2/2019 2:45:00 AM
Aromatic Hydrocarbon (C10-C12)	ND	10.8		mg/Kg-dry	1	10/2/2019 2:45:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	10.8		mg/Kg-dry	1	10/2/2019 2:45:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	10.8		mg/Kg-dry	1	10/2/2019 2:45:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	10.8	*	mg/Kg-dry	1	10/2/2019 2:45:00 AM
Surr: 1-Chlorooctadecane	84.5	60 - 140		%Rec	1	10/1/2019 3:11:00 PM
Surr: o-Terphenyl	85.0	60 - 140		%Rec	1	10/2/2019 2:45:00 AM

NOTES:
* - Flagged value is not within established control limits.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	0.561		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Aliphatic Hydrocarbon (C6-C8)	ND	0.802		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Aliphatic Hydrocarbon (C8-C10)	ND	0.449		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Aliphatic Hydrocarbon (C10-C12)	ND	0.481		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Aromatic Hydrocarbon (C8-C10)	ND	0.962		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Aromatic Hydrocarbon (C10-C12)	ND	0.192		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Aromatic Hydrocarbon (C12-C13)	ND	2.24		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Benzene	ND	0.192		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Toluene	ND	0.224		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Ethylbenzene	ND	0.224		mg/Kg-dry	1	9/9/2019 8:54:09 PM
m,p-Xylene	ND	0.417		mg/Kg-dry	1	9/9/2019 8:54:09 PM
o-Xylene	ND	0.192		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Naphthalene	ND	0.160		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Methyl tert-butyl ether (MTBE)	ND	0.160		mg/Kg-dry	1	9/9/2019 8:54:09 PM
Surr: 1,4-Difluorobenzene	87.9	65 - 140		%Rec	1	9/9/2019 8:54:09 PM
Surr: Bromofluorobenzene	91.1	65 - 140		%Rec	1	9/9/2019 8:54:09 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	11.2	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/28/2019 2:30:00 PM
Project: A9I0002
Lab ID: 1909037-002
Matrix: Soil
Client Sample ID: **MW2-S1-30**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	ND	20.1	*	mg/Kg-dry	1	10/1/2019 3:54:00 PM
Aliphatic Hydrocarbon (C10-C12)	ND	10.0		mg/Kg-dry	1	10/1/2019 3:54:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	10.0		mg/Kg-dry	1	10/1/2019 3:54:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	10.0		mg/Kg-dry	1	10/1/2019 3:54:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	10.0		mg/Kg-dry	1	10/1/2019 3:54:00 PM
Aromatic Hydrocarbon (C8-C10)	ND	10.0	*	mg/Kg-dry	1	10/2/2019 3:28:00 AM
Aromatic Hydrocarbon (C10-C12)	ND	10.0		mg/Kg-dry	1	10/2/2019 3:28:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	10.0		mg/Kg-dry	1	10/2/2019 3:28:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	10.0		mg/Kg-dry	1	10/2/2019 3:28:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	10.0	*	mg/Kg-dry	1	10/2/2019 3:28:00 AM
Surr: 1-Chlorooctadecane	83.4	60 - 140		%Rec	1	10/1/2019 3:54:00 PM
Surr: o-Terphenyl	80.8	60 - 140		%Rec	1	10/2/2019 3:28:00 AM

NOTES:
* - Flagged value is not within established control limits.

Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	0.638		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Aliphatic Hydrocarbon (C6-C8)	ND	0.912		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Aliphatic Hydrocarbon (C8-C10)	ND	0.511		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Aliphatic Hydrocarbon (C10-C12)	ND	0.547		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Aromatic Hydrocarbon (C8-C10)	ND	1.09		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Aromatic Hydrocarbon (C10-C12)	ND	0.219		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Aromatic Hydrocarbon (C12-C13)	ND	2.55		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Benzene	ND	0.219		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Toluene	ND	0.255		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Ethylbenzene	ND	0.255		mg/Kg-dry	1	9/9/2019 9:35:16 PM
m,p-Xylene	ND	0.474		mg/Kg-dry	1	9/9/2019 9:35:16 PM
o-Xylene	ND	0.219		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Naphthalene	ND	0.182		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Methyl tert-butyl ether (MTBE)	ND	0.182		mg/Kg-dry	1	9/9/2019 9:35:16 PM
Surr: 1,4-Difluorobenzene	90.6	65 - 140		%Rec	1	9/9/2019 9:35:16 PM
Surr: Bromofluorobenzene	94.8	65 - 140		%Rec	1	9/9/2019 9:35:16 PM

Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	15.1	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/29/2019 9:40:00 AM
Project: A9I0002
Lab ID: 1909037-003
Matrix: Soil
Client Sample ID: **MW3-S1-36**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	ND	26.1	*	mg/Kg-dry	1	10/1/2019 4:39:00 PM
Aliphatic Hydrocarbon (C10-C12)	ND	13.1		mg/Kg-dry	1	10/1/2019 4:39:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	13.1		mg/Kg-dry	1	10/1/2019 4:39:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	13.1		mg/Kg-dry	1	10/1/2019 4:39:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	13.1		mg/Kg-dry	1	10/1/2019 4:39:00 PM
Aromatic Hydrocarbon (C8-C10)	ND	13.1	*	mg/Kg-dry	1	10/2/2019 4:11:00 AM
Aromatic Hydrocarbon (C10-C12)	ND	13.1		mg/Kg-dry	1	10/2/2019 4:11:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	13.1		mg/Kg-dry	1	10/2/2019 4:11:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	13.1		mg/Kg-dry	1	10/2/2019 4:11:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	13.1	*	mg/Kg-dry	1	10/2/2019 4:11:00 AM
Surr: 1-Chlorooctadecane	85.4	60 - 140		%Rec	1	10/1/2019 4:39:00 PM
Surr: o-Terphenyl	86.5	60 - 140		%Rec	1	10/2/2019 4:11:00 AM

NOTES:
* - Flagged value is not within established control limits.

Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	0.810		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Aliphatic Hydrocarbon (C6-C8)	ND	1.16		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Aliphatic Hydrocarbon (C8-C10)	33.2	0.648	B	mg/Kg-dry	1	9/9/2019 10:16:25 PM
Aliphatic Hydrocarbon (C10-C12)	24.5	6.94	D	mg/Kg-dry	10	9/10/2019 8:14:00 PM
Aromatic Hydrocarbon (C8-C10)	37.9	1.39		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Aromatic Hydrocarbon (C10-C12)	49.1	2.78	D	mg/Kg-dry	10	9/10/2019 8:14:00 PM
Aromatic Hydrocarbon (C12-C13)	22.7	3.24		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Benzene	ND	0.278		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Toluene	ND	0.324		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Ethylbenzene	ND	0.324		mg/Kg-dry	1	9/9/2019 10:16:25 PM
m,p-Xylene	ND	0.602		mg/Kg-dry	1	9/9/2019 10:16:25 PM
o-Xylene	ND	0.278		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Naphthalene	ND	0.231		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Methyl tert-butyl ether (MTBE)	ND	0.231		mg/Kg-dry	1	9/9/2019 10:16:25 PM
Surr: 1,4-Difluorobenzene	88.9	65 - 140		%Rec	1	9/9/2019 10:16:25 PM
Surr: Bromofluorobenzene	114	65 - 140		%Rec	1	9/9/2019 10:16:25 PM

Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	23.9	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/29/2019 12:10:00 PM
Project: A9I0002
Lab ID: 1909037-004
Matrix: Soil
Client Sample ID: **MW4-S1-15**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	417	23.0	*	mg/Kg-dry	1	10/1/2019 5:22:00 PM
Aliphatic Hydrocarbon (C10-C12)	158	11.5		mg/Kg-dry	1	10/1/2019 5:22:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	11.5		mg/Kg-dry	1	10/1/2019 5:22:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	11.5		mg/Kg-dry	1	10/1/2019 5:22:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	11.5		mg/Kg-dry	1	10/1/2019 5:22:00 PM
Aromatic Hydrocarbon (C8-C10)	27.4	11.5	*	mg/Kg-dry	1	10/2/2019 4:54:00 AM
Aromatic Hydrocarbon (C10-C12)	20.6	11.5		mg/Kg-dry	1	10/2/2019 4:54:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	11.5		mg/Kg-dry	1	10/2/2019 4:54:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	11.5		mg/Kg-dry	1	10/2/2019 4:54:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	11.5	*	mg/Kg-dry	1	10/2/2019 4:54:00 AM
Surr: 1-Chlorooctadecane	80.6	60 - 140		%Rec	1	10/1/2019 5:22:00 PM
Surr: o-Terphenyl	83.6	60 - 140		%Rec	1	10/2/2019 4:54:00 AM

NOTES:
* - Flagged value is not within established control limits.

Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	1.11		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Aliphatic Hydrocarbon (C6-C8)	4.47	1.58		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Aliphatic Hydrocarbon (C8-C10)	76.6	0.885		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Aliphatic Hydrocarbon (C10-C12)	61.6	9.39	D	mg/Kg-dry	10	9/10/2019 5:07:00 AM
Aromatic Hydrocarbon (C8-C10)	117	1.90		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Aromatic Hydrocarbon (C10-C12)	133	3.76	D	mg/Kg-dry	10	9/10/2019 5:07:00 AM
Aromatic Hydrocarbon (C12-C13)	ND	43.8	D	mg/Kg-dry	10	9/10/2019 5:07:00 AM
Benzene	ND	0.379		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Toluene	ND	0.443		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Ethylbenzene	0.994	0.443		mg/Kg-dry	1	9/10/2019 8:33:02 AM
m,p-Xylene	ND	0.822		mg/Kg-dry	1	9/10/2019 8:33:02 AM
o-Xylene	1.21	0.379		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Naphthalene	2.21	0.316		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Methyl tert-butyl ether (MTBE)	ND	0.316		mg/Kg-dry	1	9/10/2019 8:33:02 AM
Surr: 1,4-Difluorobenzene	93.9	65 - 140		%Rec	1	9/10/2019 8:33:02 AM
Surr: Bromofluorobenzene	112	65 - 140		%Rec	1	9/10/2019 8:33:02 AM

Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	26.8	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/29/2019 12:45:00 PM
Project: A9I0002
Lab ID: 1909037-005
Matrix: Soil
Client Sample ID: **MW4-S2-39**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	ND	20.8	*	mg/Kg-dry	1	10/1/2019 6:06:00 PM
Aliphatic Hydrocarbon (C10-C12)	ND	10.4		mg/Kg-dry	1	10/1/2019 6:06:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	10.4		mg/Kg-dry	1	10/1/2019 6:06:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	10.4		mg/Kg-dry	1	10/1/2019 6:06:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	10.4		mg/Kg-dry	1	10/1/2019 6:06:00 PM
Aromatic Hydrocarbon (C8-C10)	ND	10.4	*	mg/Kg-dry	1	10/2/2019 5:36:00 AM
Aromatic Hydrocarbon (C10-C12)	ND	10.4		mg/Kg-dry	1	10/2/2019 5:36:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	10.4		mg/Kg-dry	1	10/2/2019 5:36:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	10.4		mg/Kg-dry	1	10/2/2019 5:36:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	10.4	*	mg/Kg-dry	1	10/2/2019 5:36:00 AM
Surr: 1-Chlorooctadecane	97.2	60 - 140		%Rec	1	10/1/2019 6:06:00 PM
Surr: o-Terphenyl	91.2	60 - 140		%Rec	1	10/2/2019 5:36:00 AM

NOTES:
* - Flagged value is not within established control limits.

Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	0.827		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Aliphatic Hydrocarbon (C6-C8)	ND	1.18		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Aliphatic Hydrocarbon (C8-C10)	ND	0.662		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Aliphatic Hydrocarbon (C10-C12)	ND	0.709		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Aromatic Hydrocarbon (C8-C10)	ND	1.42		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Aromatic Hydrocarbon (C10-C12)	0.617	0.284		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Aromatic Hydrocarbon (C12-C13)	4.35	3.31		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Benzene	ND	0.284		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Toluene	ND	0.331		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Ethylbenzene	ND	0.331		mg/Kg-dry	1	9/10/2019 6:51:51 PM
m,p-Xylene	ND	0.614		mg/Kg-dry	1	9/10/2019 6:51:51 PM
o-Xylene	ND	0.284		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Naphthalene	0.569	0.236		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Methyl tert-butyl ether (MTBE)	ND	0.236		mg/Kg-dry	1	9/10/2019 6:51:51 PM
Surr: 1,4-Difluorobenzene	93.8	65 - 140		%Rec	1	9/10/2019 6:51:51 PM
Surr: Bromofluorobenzene	100	65 - 140		%Rec	1	9/10/2019 6:51:51 PM

Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	13.7	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/29/2019 1:45:00 PM
Project: A9I0002
Lab ID: 1909037-006
Matrix: Soil
Client Sample ID: **MW5-S1-9**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	1,180	130	D*	mg/Kg-dry	5	10/2/2019 8:48:00 PM
Aliphatic Hydrocarbon (C10-C12)	418	13.0		mg/Kg-dry	1	10/1/2019 6:50:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	13.0		mg/Kg-dry	1	10/1/2019 6:50:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	13.0		mg/Kg-dry	1	10/1/2019 6:50:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	13.0		mg/Kg-dry	1	10/1/2019 6:50:00 PM
Aromatic Hydrocarbon (C8-C10)	111	13.0	*	mg/Kg-dry	1	10/2/2019 6:19:00 AM
Aromatic Hydrocarbon (C10-C12)	51.6	13.0		mg/Kg-dry	1	10/2/2019 6:19:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	13.0		mg/Kg-dry	1	10/2/2019 6:19:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	13.0		mg/Kg-dry	1	10/2/2019 6:19:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	13.0	*	mg/Kg-dry	1	10/2/2019 6:19:00 AM
Surr: 1-Chlorooctadecane	78.8	60 - 140		%Rec	1	10/1/2019 6:50:00 PM
Surr: o-Terphenyl	77.0	60 - 140		%Rec	1	10/2/2019 6:19:00 AM

NOTES:
* - Flagged value is not within established control limits.

Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	18.7	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Aliphatic Hydrocarbon (C6-C8)	46.8	26.6	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Aliphatic Hydrocarbon (C8-C10)	2,830	74.6	D	mg/Kg-dry	50	9/10/2019 4:25:51 AM
Aliphatic Hydrocarbon (C10-C12)	2,450	79.9	D	mg/Kg-dry	50	9/10/2019 4:25:51 AM
Aromatic Hydrocarbon (C8-C10)	2,780	160	D	mg/Kg-dry	50	9/10/2019 4:25:51 AM
Aromatic Hydrocarbon (C10-C12)	2,370	32.0	D	mg/Kg-dry	50	9/10/2019 4:25:51 AM
Aromatic Hydrocarbon (C12-C13)	240	74.6	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Benzene	ND	6.40	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Toluene	ND	7.46	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Ethylbenzene	ND	7.46	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
m,p-Xylene	ND	13.9	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
o-Xylene	49.0	6.40	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Naphthalene	12.8	5.33	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Methyl tert-butyl ether (MTBE)	ND	5.33	D	mg/Kg-dry	10	9/10/2019 7:10:52 AM
Surr: 1,4-Difluorobenzene	91.8	65 - 140	D	%Rec	10	9/10/2019 7:10:52 AM
Surr: Bromofluorobenzene	102	65 - 140	D	%Rec	10	9/10/2019 7:10:52 AM

Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	24.7	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/29/2019 1:00:00 PM
Project: A9I0002
Lab ID: 1909037-007
Matrix: Soil
Client Sample ID: **MW4-S3-34**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	60.5	19.3	*	mg/Kg-dry	1	10/1/2019 7:33:00 PM
Aliphatic Hydrocarbon (C10-C12)	37.2	9.66		mg/Kg-dry	1	10/1/2019 7:33:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	9.66		mg/Kg-dry	1	10/1/2019 7:33:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	9.66		mg/Kg-dry	1	10/1/2019 7:33:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	9.66		mg/Kg-dry	1	10/1/2019 7:33:00 PM
Aromatic Hydrocarbon (C8-C10)	ND	9.66	*	mg/Kg-dry	1	10/2/2019 7:02:00 AM
Aromatic Hydrocarbon (C10-C12)	ND	9.66		mg/Kg-dry	1	10/2/2019 7:02:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	9.66		mg/Kg-dry	1	10/2/2019 7:02:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	9.66		mg/Kg-dry	1	10/2/2019 7:02:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	9.66	*	mg/Kg-dry	1	10/2/2019 7:02:00 AM
Surr: 1-Chlorooctadecane	86.6	60 - 140		%Rec	1	10/1/2019 7:33:00 PM
Surr: o-Terphenyl	84.2	60 - 140		%Rec	1	10/2/2019 7:02:00 AM

NOTES:
* - Flagged value is not within established control limits.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	2.40		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Aliphatic Hydrocarbon (C6-C8)	ND	3.43		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Aliphatic Hydrocarbon (C8-C10)	23.3	1.92		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Aliphatic Hydrocarbon (C10-C12)	27.3	2.06		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Aromatic Hydrocarbon (C8-C10)	20.2	4.12		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Aromatic Hydrocarbon (C10-C12)	35.3	0.824		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Aromatic Hydrocarbon (C12-C13)	ND	9.61		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Benzene	ND	0.824		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Toluene	ND	0.961		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Ethylbenzene	ND	0.961		mg/Kg-dry	1	9/9/2019 11:38:58 PM
m,p-Xylene	ND	1.78		mg/Kg-dry	1	9/9/2019 11:38:58 PM
o-Xylene	ND	0.824		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Naphthalene	ND	0.687		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Methyl tert-butyl ether (MTBE)	ND	0.687		mg/Kg-dry	1	9/9/2019 11:38:58 PM
Surr: 1,4-Difluorobenzene	90.9	65 - 140		%Rec	1	9/9/2019 11:38:58 PM
Surr: Bromofluorobenzene	104	65 - 140		%Rec	1	9/9/2019 11:38:58 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	8.67	0.500		wt%	1	9/6/2019 11:02:39 AM

Client: Apex Laboratories
Collection Date: 8/29/2019 3:15:00 PM
Project: A9I0002
Lab ID: 1909037-008
Matrix: Soil
Client Sample ID: **MW5-S2-31**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 25748		Analyst: DW
Aliphatic Hydrocarbon (C8-C10)	100	21.5	*	mg/Kg-dry	1	10/1/2019 8:17:00 PM
Aliphatic Hydrocarbon (C10-C12)	52.6	10.8		mg/Kg-dry	1	10/1/2019 8:17:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	10.8		mg/Kg-dry	1	10/1/2019 8:17:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	10.8		mg/Kg-dry	1	10/1/2019 8:17:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	10.8		mg/Kg-dry	1	10/1/2019 8:17:00 PM
Aromatic Hydrocarbon (C8-C10)	ND	10.8	*	mg/Kg-dry	1	10/2/2019 7:45:00 AM
Aromatic Hydrocarbon (C10-C12)	ND	10.8		mg/Kg-dry	1	10/2/2019 7:45:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	10.8		mg/Kg-dry	1	10/2/2019 7:45:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	10.8		mg/Kg-dry	1	10/2/2019 7:45:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	10.8	*	mg/Kg-dry	1	10/2/2019 7:45:00 AM
Surr: 1-Chlorooctadecane	67.9	60 - 140		%Rec	1	10/1/2019 8:17:00 PM
Surr: o-Terphenyl	57.1	60 - 140	S	%Rec	1	10/2/2019 7:45:00 AM

NOTES:
* - Flagged value is not within established control limits.
S - Outlying surrogate recovery(ies) observed.

Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 25751		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	1.69		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Aliphatic Hydrocarbon (C6-C8)	ND	2.42		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Aliphatic Hydrocarbon (C8-C10)	50.4	1.35		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Aliphatic Hydrocarbon (C10-C12)	41.9	14.5	D	mg/Kg-dry	10	9/10/2019 8:55:06 PM
Aromatic Hydrocarbon (C8-C10)	58.9	2.90		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Aromatic Hydrocarbon (C10-C12)	58.5	5.80	D	mg/Kg-dry	10	9/10/2019 8:55:06 PM
Aromatic Hydrocarbon (C12-C13)	24.2	6.77		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Benzene	ND	0.580		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Toluene	ND	0.677		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Ethylbenzene	ND	0.677		mg/Kg-dry	1	9/10/2019 1:00:59 AM
m,p-Xylene	ND	1.26		mg/Kg-dry	1	9/10/2019 1:00:59 AM
o-Xylene	ND	0.580		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Naphthalene	ND	0.484		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Methyl tert-butyl ether (MTBE)	ND	0.484		mg/Kg-dry	1	9/10/2019 1:00:59 AM
Surr: 1,4-Difluorobenzene	90.1	65 - 140		%Rec	1	9/10/2019 1:00:59 AM
Surr: Bromofluorobenzene	113	65 - 140		%Rec	1	9/10/2019 1:00:59 AM

Sample Moisture (Percent Moisture)				Batch ID: R53712		Analyst: CJ
Percent Moisture	8.61	0.500		wt%	1	9/6/2019 11:02:39 AM

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **LCS-25748**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **9/9/2019**	RunNo: **54318**
Client ID: **LCSS**	Batch ID: **25748**		Analysis Date: **9/24/2019**	SeqNo: **1076020**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	76.2	10.0	250.0	0	30.5	70	130				S
Aromatic Hydrocarbon (C10-C12)	91.0	10.0	125.0	0	72.8	70	130				
Aromatic Hydrocarbon (C12-C16)	97.6	10.0	125.0	0	78.1	70	130				
Aromatic Hydrocarbon (C16-C21)	99.6	10.0	125.0	0	79.7	70	130				
Aromatic Hydrocarbon (C21-C34)	83.5	10.0	125.0	0	66.8	70	130				S
Surr: o-Terphenyl	78.8		100.0		78.8	60	140				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-25748**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **9/9/2019**	RunNo: **54318**
Client ID: **MBLKS**	Batch ID: **25748**		Analysis Date: **10/1/2019**	SeqNo: **1075982**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	ND	20.0									*
Aliphatic Hydrocarbon (C10-C12)	ND	10.0									
Aliphatic Hydrocarbon (C12-C16)	ND	10.0									
Aliphatic Hydrocarbon (C16-C21)	ND	10.0									
Aliphatic Hydrocarbon (C21-C34)	ND	10.0									
Surr: 1-Chlorooctadecane	86.1		100.0		86.1	60	140				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **LCS-25748**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **9/9/2019**	RunNo: **54318**
Client ID: **LCSS**	Batch ID: **25748**		Analysis Date: **10/1/2019**	SeqNo: **1075981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	118	20.0	250.0	0	47.2	70	130				S
Aliphatic Hydrocarbon (C10-C12)	89.9	10.0	125.0	0	71.9	70	130				
Aliphatic Hydrocarbon (C12-C16)	109	10.0	125.0	0	86.8	70	130				
Aliphatic Hydrocarbon (C16-C21)	106	10.0	125.0	0	85.1	70	130				
Aliphatic Hydrocarbon (C21-C34)	128	10.0	125.0	0	102	70	130				
Surr: 1-Chlorooctadecane	81.0		100.0		81.0	60	140				

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **LCS-25748**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **9/9/2019**	RunNo: **54318**
Client ID: **LCSS**	Batch ID: **25748**		Analysis Date: **10/1/2019**	SeqNo: **1075981**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **MB-25748**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **9/9/2019**	RunNo: **54318**
Client ID: **MBLKS**	Batch ID: **25748**		Analysis Date: **10/2/2019**	SeqNo: **1076031**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	ND	10.0									*
Aromatic Hydrocarbon (C10-C12)	ND	10.0									
Aromatic Hydrocarbon (C12-C16)	ND	10.0									
Aromatic Hydrocarbon (C16-C21)	ND	10.0									
Aromatic Hydrocarbon (C21-C34)	ND	10.0									*
Surr: o-Terphenyl	87.3		100.0		87.3	60	140				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **1909029-001ADUP**	SampType: **DUP**	Units: **mg/Kg-dry**	Prep Date: **9/9/2019**	RunNo: **54318**
Client ID: **BATCH**	Batch ID: **25748**		Analysis Date: **10/2/2019**	SeqNo: **1076584**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	ND	21.3						0		25	*
Aliphatic Hydrocarbon (C10-C12)	ND	10.7						0		25	
Aliphatic Hydrocarbon (C12-C16)	ND	10.7						0		25	
Aliphatic Hydrocarbon (C16-C21)	ND	10.7						0		25	
Aliphatic Hydrocarbon (C21-C34)	ND	10.7						0		25	
Surr: 1-Chlorooctadecane	82.5		106.6		77.3	60	140		0		

NOTES:
* - Flagged value is not within established control limits.

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **1909029-001AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **54318**
Client ID: **BATCH** Batch ID: **25748** Analysis Date: **10/2/2019** SeqNo: **1076585**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	108	21.0	262.1	2.293	40.2	70	130				S
Aliphatic Hydrocarbon (C10-C12)	83.9	10.5	131.1	0	64.0	70	130				S
Aliphatic Hydrocarbon (C12-C16)	101	10.5	131.1	0	77.4	70	130				
Aliphatic Hydrocarbon (C16-C21)	102	10.5	131.1	0	77.6	70	130				
Aliphatic Hydrocarbon (C21-C34)	121	10.5	131.1	0	92.3	70	130				
Surr: 1-Chlorooctadecane	78.1		104.9		74.5	60	140				

NOTES:
S - Outlying spike recovery(ies) observed.

Sample ID: **1909029-001AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **54318**
Client ID: **BATCH** Batch ID: **25748** Analysis Date: **10/2/2019** SeqNo: **1076586**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	128	20.3	254.1	2.293	49.4	70	130	107.6	17.1	30	S
Aliphatic Hydrocarbon (C10-C12)	92.9	10.2	127.0	0	73.1	70	130	83.92	10.1	30	
Aliphatic Hydrocarbon (C12-C16)	103	10.2	127.0	0	81.1	70	130	101.4	1.62	30	
Aliphatic Hydrocarbon (C16-C21)	106	10.2	127.0	0	83.2	70	130	101.7	3.86	30	
Aliphatic Hydrocarbon (C21-C34)	114	10.2	127.0	0	89.9	70	130	121.0	5.78	30	
Surr: 1-Chlorooctadecane	83.6		101.6		82.2	60	140		0		

NOTES:
S - Outlying spike recovery observed.

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **LCS-25751** SampType: **LCS** Units: **mg/Kg** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **LCSS** Batch ID: **25751** Analysis Date: **9/9/2019** SeqNo: **1065510**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	31.0	1.75	30.00	0	103	70	130				
Aliphatic Hydrocarbon (C6-C8)	9.98	2.50	10.00	0	99.8	70	130				
Aliphatic Hydrocarbon (C8-C10)	9.97	1.40	10.00	0	99.7	70	130				
Aliphatic Hydrocarbon (C10-C12)	9.76	1.50	10.00	0	97.6	70	130				
Aromatic Hydrocarbon (C8-C10)	40.6	3.00	40.00	0	101	70	130				
Aromatic Hydrocarbon (C10-C12)	11.0	0.600	10.00	0	110	70	130				
Aromatic Hydrocarbon (C12-C13)	10.8	7.00	10.00	0	108	70	130				
Benzene	10.2	0.600	10.00	0	102	70	130				
Toluene	10.2	0.700	10.00	0	102	70	130				
Ethylbenzene	10.2	0.700	10.00	0	102	70	130				
m,p-Xylene	20.6	1.30	20.00	0	103	70	130				
o-Xylene	10.2	0.600	10.00	0	102	70	130				
Naphthalene	10.3	0.500	10.00	0	103	70	130				
Methyl tert-butyl ether (MTBE)	10.7	0.500	10.00	0	107	70	130				
Surr: 1,4-Difluorobenzene	2.44		2.500		97.6	65	140				
Surr: Bromofluorobenzene	2.42		2.500		96.8	65	140				

Sample ID: **MB-25751** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **MBLKS** Batch ID: **25751** Analysis Date: **9/9/2019** SeqNo: **1065511**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	1.75		0	0						
Aliphatic Hydrocarbon (C6-C8)	ND	2.50		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	1.40		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	1.50		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	3.00		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	0.600		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	7.00		0	0						
Benzene	ND	0.600		0	0						
Toluene	ND	0.700		0	0						

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **MB-25751** SampType: **MBLK** Units: **mg/Kg** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **MBLKS** Batch ID: **25751** Analysis Date: **9/9/2019** SeqNo: **1065511**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	0.700		0	0						
m,p-Xylene	ND	1.30		0	0						
o-Xylene	ND	0.600		0	0						
Naphthalene	ND	0.500		0	0						
Methyl tert-butyl ether (MTBE)	ND	0.500		0	0						
Surr: 1,4-Difluorobenzene	2.19		2.500		87.8	65	140				
Surr: Bromofluorobenzene	2.30		2.500		92.2	65	140				

Sample ID: **1909037-007BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **MW4-S3-34** Batch ID: **25751** Analysis Date: **9/10/2019** SeqNo: **1065500**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	2.40		0	0			0		25	
Aliphatic Hydrocarbon (C6-C8)	ND	3.43		0	0			0		25	
Aliphatic Hydrocarbon (C8-C10)	26.7	1.92		0	0			23.35	13.4	25	
Aliphatic Hydrocarbon (C10-C12)	27.6	2.06		0	0			27.26	1.27	25	
Aromatic Hydrocarbon (C8-C10)	24.9	4.12		0	0			20.18	20.9	25	
Aromatic Hydrocarbon (C10-C12)	40.3	0.824		0	0			35.30	13.2	25	
Aromatic Hydrocarbon (C12-C13)	ND	9.61		0	0			0		25	
Benzene	ND	0.824		0	0			0		25	
Toluene	ND	0.961		0	0			0		25	
Ethylbenzene	ND	0.961		0	0			0		25	
m,p-Xylene	ND	1.78		0	0			0		25	
o-Xylene	ND	0.824		0	0			0		25	
Naphthalene	ND	0.687		0	0			0		25	
Methyl tert-butyl ether (MTBE)	ND	0.687		0	0			0		25	
Surr: 1,4-Difluorobenzene	3.12		3.433		91.0	65	140		0		
Surr: Bromofluorobenzene	3.62		3.433		105	65	140		0		

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **1909037-008BMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **MW5-S2-31** Batch ID: **25751** Analysis Date: **9/10/2019** SeqNo: **1065503**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	30.9	1.69	29.02	0	106	70	130				
Aliphatic Hydrocarbon (C6-C8)	11.0	2.42	9.672	0	114	70	130				
Aliphatic Hydrocarbon (C8-C10)	59.2	1.35	9.672	50.39	90.7	70	130				
Aliphatic Hydrocarbon (C10-C12)	78.6	1.45	9.672	69.18	97.5	70	130				E
Aromatic Hydrocarbon (C8-C10)	99.7	2.90	38.69	58.91	106	70	130				
Aromatic Hydrocarbon (C10-C12)	115	0.580	9.672	105.6	97.7	70	130				E
Aromatic Hydrocarbon (C12-C13)	34.2	6.77	9.672	24.17	104	70	130				
Benzene	10.9	0.580	9.672	0	113	70	130				
Toluene	11.0	0.677	9.672	0	113	70	130				
Ethylbenzene	11.1	0.677	9.672	0	115	70	130				
m,p-Xylene	22.5	1.26	19.34	0	116	70	130				
o-Xylene	12.3	0.580	9.672	0	127	70	130				
Naphthalene	9.01	0.484	9.672	0.1602	91.5	70	130				
Methyl tert-butyl ether (MTBE)	10.2	0.484	9.672	0	106	70	130				
Surr: 1,4-Difluorobenzene	2.45		2.418		101	65	140				
Surr: Bromofluorobenzene	2.74		2.418		113	65	140				

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: **1909037-008BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **MW5-S2-31** Batch ID: **25751** Analysis Date: **9/10/2019** SeqNo: **1065504**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	29.1	1.69	29.02	0	100	70	130	30.87	5.83	30	
Aliphatic Hydrocarbon (C6-C8)	10.4	2.42	9.672	0	108	70	130	11.04	5.54	30	
Aliphatic Hydrocarbon (C8-C10)	60.0	1.35	9.672	50.39	99.0	70	130	59.17	1.34	30	
Aliphatic Hydrocarbon (C10-C12)	80.4	1.45	9.672	69.18	116	70	130	78.61	2.22	30	E
Aromatic Hydrocarbon (C8-C10)	99.4	2.90	38.69	58.91	105	70	130	99.73	0.362	30	
Aromatic Hydrocarbon (C10-C12)	116	0.580	9.672	105.6	105	70	130	115.1	0.640	30	E
Aromatic Hydrocarbon (C12-C13)	37.0	6.77	9.672	24.17	133	70	130	34.24	7.77	30	S
Benzene	10.3	0.580	9.672	0	106	70	130	10.88	5.51	30	

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **1909037-008BMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **MW5-S2-31** Batch ID: **25751** Analysis Date: **9/10/2019** SeqNo: **1065504**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	10.3	0.677	9.672	0	106	70	130	10.96	6.39	30	
Ethylbenzene	10.3	0.677	9.672	0	107	70	130	11.10	7.46	30	
m,p-Xylene	20.9	1.26	19.34	0	108	70	130	22.48	7.37	30	
o-Xylene	11.6	0.580	9.672	0	120	70	130	12.29	5.51	30	
Naphthalene	10.1	0.484	9.672	0.1602	103	70	130	9.009	11.5	30	
Methyl tert-butyl ether (MTBE)	9.64	0.484	9.672	0	99.7	70	130	10.21	5.72	30	
Surr: 1,4-Difluorobenzene	2.40		2.418		99.1	65	140		0		
Surr: Bromofluorobenzene	2.86		2.418		118	65	140		0		

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: **1909029-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **BATCH** Batch ID: **25751** Analysis Date: **9/10/2019** SeqNo: **1065488**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	20.2		0	0			0		25	D
Aliphatic Hydrocarbon (C6-C8)	158	28.9		0	0			165.7	4.53	25	D
Aliphatic Hydrocarbon (C8-C10)	150	16.2		0	0			150.4	0.0301	25	D
Aliphatic Hydrocarbon (C10-C12)	235	17.3		0	0			234.5	0.246	25	D
Aromatic Hydrocarbon (C8-C10)	388	34.6		0	0			409.7	5.44	25	D
Aromatic Hydrocarbon (C10-C12)	761	6.93		0	0			822.3	7.76	25	DE
Aromatic Hydrocarbon (C12-C13)	1,150	80.8		0	0			1,163	1.02	25	DE
Benzene	ND	6.93		0	0			0		25	D
Toluene	18.4	8.08		0	0			19.09	3.88	25	D
Ethylbenzene	ND	8.08		0	0			0		25	D
m,p-Xylene	114	15.0		0	0			117.7	3.33	25	D
o-Xylene	48.9	6.93		0	0			50.92	3.96	25	D
Naphthalene	32.4	5.77		0	0			32.44	0.00784	25	D
Methyl tert-butyl ether (MTBE)	ND	5.77		0	0			0		25	D
Surr: 1,4-Difluorobenzene	28.4		28.86		98.5	65	140		0		D

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **1909029-003BDUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **9/9/2019** RunNo: **53825**
Client ID: **BATCH** Batch ID: **25751** Analysis Date: **9/10/2019** SeqNo: **1065488**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Bromofluorobenzene	31.5		28.86		109	65	140		0		D

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1909037
CLIENT: Apex Laboratories
Project: A9I0002

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID: **1909040-002ADUP**	SampType: **DUP**	Units: **wt%**	Prep Date: **9/6/2019**	RunNo: **53712**
Client ID: **BATCH**	Batch ID: **R53712**		Analysis Date: **9/6/2019**	SeqNo: **1063160**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	3.19	0.500						3.207	0.485	20	

Sample ID: **1909037-004ADUP**	SampType: **DUP**	Units: **wt%**	Prep Date: **9/6/2019**	RunNo: **53712**
Client ID: **MW4-S1-15**	Batch ID: **R53712**		Analysis Date: **9/6/2019**	SeqNo: **1063167**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	26.1	0.500						26.78	2.72	20	

Sample Log-In Check List

Client Name:	**APEX**	Work Order Number:	**1909037**
Logged by:	**Carissa True**	Date Received:	**9/5/2019 9:46:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes	☑	No ☐	Not Present	☐
2.	How was the sample delivered?	UPS				

Log In

3.	Coolers are present?	Yes	☑	No ☐	NA	☐
4.	Shipping container/cooler in good condition?	Yes	☑	No ☐		
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes	☐	No ☑	Not Required	☐
6.	Was an attempt made to cool the samples?	Yes	☑	No ☐	NA	☐
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes	☑	No ☐	NA	☐
8.	Sample(s) in proper container(s)?	Yes	☑	No ☐		
9.	Sufficient sample volume for indicated test(s)?	Yes	☑	No ☐		
10.	Are samples properly preserved?	Yes	☑	No ☐		
11.	Was preservative added to bottles?	Yes	☐	No ☑	NA	☐
12.	Is there headspace in the VOA vials?	Yes	☐	No ☐	NA	☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes	☑	No ☐		
14.	Does paperwork match bottle labels?	Yes	☑	No ☐		
15.	Are matrices correctly identified on Chain of Custody?	Yes	☑	No ☐		
16.	Is it clear what analyses were requested?	Yes	☑	No ☐		
17.	Were all holding times able to be met?	Yes	☑	No ☐		

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes	☐	No ☐	NA	☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	6.1
Sample 1	3.9
Temp Blank 1	6.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

HF 9-3-19
(8)

SUBCONTRACT ORDER

Apex Laboratories

A9I0002 1909037

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Kevin J. Friscia

RECEIVING LABORATORY:

Fremont Analytical
3600 Fremont Avenue N.
Seattle, WA 98103
Phone :(206) 352-3790
Fax: (206) 352-7178

No T on 4oz Jars.

Sample Name: MW1-S1-26 **Soil** **Sampled: 08/28/19 10:04** (A9I0002-01)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/11/19 10:04	
NWTPH-VPH (Sub)	09/11/19 17:00	09/11/19 10:04	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

No T on Conts.

Sample Name: MW2-S1-30 **Soil** **Sampled: 08/28/19 14:30** (A9I0002-02)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/11/19 14:30	
NWTPH-VPH (Sub)	09/11/19 17:00	09/11/19 14:30	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

No T on Conts.

Sample Name: MW3-S1-36 **Soil** **Sampled: 08/29/19 09:40** (A9I0002-03)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/12/19 09:40	
NWTPH-VPH (Sub)	09/11/19 17:00	09/12/19 09:40	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

~~7 day TAT~~ STd TAT
HF 9-3-19

Released By	Date	Received By	Date
	9/3/19 14:30	UPS (Shipper)	
UPS (Shipper)			
			9/5/19 0946

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Page 1 of 3

SUBCONTRACT ORDER

Apex Laboratories

A9I0002 1909037

No T on Conts.

Sample Name: MW4-S1-15 **Soil** **Sampled: 08/29/19 12:10** (A9I0002-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/12/19 12:10	
NWTPH-VPH (Sub)	09/11/19 17:00	09/12/19 12:10	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

No T on Conts. D on 1/4 MeOH Voas Reads 8/2

Sample Name: MW4-S2-39 **Soil** **Sampled: 08/29/19 12:45** (A9I0002-05)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/12/19 12:45	
NWTPH-VPH (Sub)	09/11/19 17:00	09/12/19 12:45	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

No T on Conts.

Sample Name: MW5-S1-9 **Soil** **Sampled: 08/29/19 13:45** (A9I0002-06)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/12/19 13:45	
NWTPH-VPH (Sub)	09/11/19 17:00	09/12/19 13:45	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

No T on Conts.

Sample Name: MW4-S3-34 **Soil** **Sampled: 08/29/19 13:00** (A9I0002-07)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/12/19 13:00	
NWTPH-VPH (Sub)	09/11/19 17:00	09/12/19 13:00	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

~~7 day TAT~~ STDTAT
KF 9-3-19

Released By	Date	Received By	Date
[signature]	9/3/19 14:30	UPS (Shipper)	
UPS (Shipper)		[signature]	9/5/19
Released By	Date	Received By	Date

8

SUBCONTRACT ORDER

Apex Laboratories

A9I0002

1909037

No T on Conts. D on 1/4 MeOH Voas Reads 8/2

Sample Name: MW5-S2-31 **Soil** **Sampled: 08/29/19 15:15** (A9I0002-08)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	09/11/19 17:00	09/12/19 15:15	
NWTPH-VPH (Sub)	09/11/19 17:00	09/12/19 15:15	
Containers Supplied:			
(B)4 oz Glass Jar			
(E)40 mL VOA - 5035 (MeOH)			
(F)40 mL VOA - 5035 (MeOH)			

~~7 day TAT~~ STD TAT
MF 9-3-19

9/3/19 14:30
Released By Date

UPS (Shipper)
Received By Date

UPS (Shipper)
Released By Date

Received By Date 9/5/19

73 of 73 This report is not complete without data from Fremont Analytical 10/3/2019

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Soil by EPA Method 8260C/5035A

Analytical Results

	Reporting	MTH BLK	LCS	LCSD	SB2B-S1	SB8-S1	SB9-S1
Date extracted	Limits	02/18/13	02/18/13	02/18/13	02/18/13	02/18/13	02/18/13
Date analyzed	(mg/Kg)	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13
Dichlorodifluoromethane	0.05	nd			nd	nd	nd
Chloromethane	0.05	nd			nd	nd	nd
Vinyl chloride	0.05	nd	159%	143%	nd	nd	nd
Bromomethane	0.05	nd			nd	nd	nd
Chloroethane	0.05	nd			nd	nd	nd
Trichlorofluoromethane	0.05	nd			nd	nd	nd
Acetone	0.25	nd			nd	nd	nd
1,1-Dichloroethene	0.05	nd	139%	139%	nd	nd	nd
Methylene chloride	0.02	nd			nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd			nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd			nd	nd	nd
1,1-Dichloroethane	0.05	nd			nd	nd	nd
2-Butanone (MEK)	0.25	nd			nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd			nd	nd	nd
2,2-Dichloropropane	0.05	nd			nd	nd	nd
Chloroform	0.05	nd	127%	122%	nd	nd	nd
Bromochloromethane	0.05	nd			nd	nd	nd
1,1,1-Trichloroethane	0.05	nd			nd	nd	nd
1,2-Dichloroethane (EDC)	0.05	nd			nd	nd	nd
1,1-Dichloropropene	0.05	nd			nd	nd	nd
Carbon tetrachloride	0.05	nd			nd	nd	nd
Benzene	0.02	nd	118%	112%	nd	nd	nd
Trichloroethene (TCE)	0.02	nd	132%	124%	nd	nd	nd
1,2-Dichloropropane	0.05	nd	115%	109%	nd	nd	nd
Dibromomethane	0.05	nd			nd	nd	nd
Bromodichloromethane	0.05	nd			nd	nd	nd
4-Methyl-2-pentanone (MIBK)	0.25	nd			nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd			nd	nd	nd
Toluene	0.05	nd	116%	111%	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd			nd	nd	nd
1,1,2-Trichloroethane	0.05	nd			nd	nd	nd
2-Hexanone	0.25	nd			nd	nd	nd
1,3-Dichloropropane	0.05	nd			nd	nd	nd
Dibromochloromethane	0.05	nd			nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd	110%	112%	**0.03**	nd	nd
1,2-Dibromoethane (EDB)	0.05	nd			nd	nd	nd
Chlorobenzene	0.05	nd			nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd			nd	nd	nd
Ethylbenzene	0.05	nd	120%	120%	nd	**0.16**	nd
Xylenes	0.15	nd	116%	114%	nd	**0.38**	nd
Styrene	0.05	nd			nd	nd	nd
Bromoform	0.05	nd			nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd			nd	nd	nd
Isopropylbenzene	0.05	nd			nd	**0.50**	nd
1,2,3-Trichloropropane	0.05	nd			nd	nd	nd

Bromobenzene	0.05	nd		nd	nd	nd
n-Propylbenzene	0.05	nd		nd	nd	nd
2-Chlorotoluene	0.05	nd		nd	nd	nd
4-Chlorotoluene	0.05	nd		nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd		**0.16**	**3.5**	nd
tert-Butylbenzene	0.05	nd		nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd		**0.32**	**12**	nd
sec-Butylbenzene	0.05	nd		nd	nd	nd
1,3-Dichlorobenzene	0.05	nd		nd	nd	nd
1,4-Dichlorobenzene	0.05	nd		nd	nd	nd
Isopropyltoluene	0.05	nd		nd	**1.9**	nd
1,2-Dichlorobenzene	0.05	nd		nd	nd	nd
n-Butylbenzene	0.05	nd		nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd		nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd		nd	nd	nd
Naphthalene	0.10	nd		nd	nd	nd
Hexachloro-1,3-butadiene	0.10	nd		nd	nd	nd
1,2,3-Trichlorobenzene	0.10	nd		nd	nd	nd

Surrogate recoveries						
Dibromofluoromethane	98%	107%	107%	102%	107%	110%
Toluene-d8	106%	96%	98%	103%	107%	107%
4-Bromofluorobenzene	115%	100%	99%	114%	112%	112%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Volatile Organic Compounds in Water by EPA Method 8260C/5030C

	Reporting	MB	LCS	LCSD	SB2-W1	Trip Blank
Date analyzed	Limits	02/20/13	02/20/13	02/20/13	02/20/13	02/20/13
	(ug/L)					
Dichlorodifluoromethane	1.0	nd			nd	nd
Chloromethane	1.0	nd			nd	nd
Vinyl chloride	0.2	nd	80%	75%	nd	nd
Bromomethane	1.0	nd			nd	nd
Chloroethane	1.0	nd			nd	nd
Trichlorofluoromethane	1.0	nd			nd	nd
Acetone	10.0	nd			2.5	nd
1,1-Dichloroethene	1.0	nd	115%	101%	nd	nd
Methylene chloride	1.0	nd			nd	nd
Methyl-t-butyl ether (MTBE)	1.0	nd			nd	nd
trans-1,2-Dichloroethene	1.0	nd			nd	nd
1,1-Dichloroethane	1.0	nd			nd	nd
2-Butanone (MEK)	10.0	nd			nd	nd
cis-1,2-Dichloroethene	1.0	nd			1.6	nd
2,2-Dichloropropane	1.0	nd			nd	nd
Chloroform	1.0	nd	130%	115%	35	nd
Bromochloromethane	1.0	nd			nd	nd
1,1,1-Trichloroethane	1.0	nd			nd	nd
1,2-Dichloroethane (EDC)	1.0	nd			nd	nd
1,1-Dichloropropene	1.0	nd			nd	nd
Carbon tetrachloride	1.0	nd			nd	nd
Benzene	1.0	nd	123%	107%	3.4	nd
Trichloroethene (TCE)	1.0	nd	133%	117%	5.1	nd
1,2-Dichloropropane	1.0	nd	125%	112%	101	nd
Dibromomethane	1.0	nd			nd	nd
Bromodichloromethane	1.0	nd			nd	nd
4-Methyl-2-pentanone (MIBK)	1.0	nd			nd	nd
cis-1,3-Dichloropropene	1.0	nd			nd	nd
Toluene	1.0	nd	104%	95%	nd	nd
trans-1,3-Dichloropropene	1.0	nd			nd	nd
1,1,2-Trichloroethane	1.0	nd			nd	nd
2-Hexanone	1.0	nd			nd	nd
1,3-Dichloropropane	1.0	nd			nd	nd
Dibromochloromethane	1.0	nd			nd	nd
Tetrachloroethene (PCE)	1.0	nd	122%	109%	53	nd
1,2-Dibromoethane (EDB)	1.0	nd			nd	nd
Chlorobenzene	1.0	nd			nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd			nd	nd
Ethylbenzene	1.0	nd	123%	112%	nd	nd
Xylenes	3.0	nd	120%	108%	37	nd
Styrene	1.0	nd			nd	nd
Bromoform	1.0	nd			nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd			nd	nd
Isopropylbenzene	1.0	nd			9.9	nd
1,2,3-Trichloropropane	1.0	nd			nd	nd
Bromobenzene	1.0	nd			nd	nd

n-Propylbenzene	1.0	nd			**20**	nd
2-Chlorotoluene	1.0	nd			nd	nd
4-Chlorotoluene	1.0	nd			nd	nd
1,3,5-Trimethylbenzene	1.0	nd			**57**	nd
tert-Butylbenzene	1.0	nd			**1.1**	nd
1,2,4-Trimethylbenzene	1.0	nd			**140**	nd
sec-Butylbenzene	1.0	nd			**13**	nd
1,3-Dichlorobenzene	1.0	nd			nd	nd
1,4-Dichlorobenzene	1.0	nd			nd	nd
Isopropyltoluene	1.0	nd			**17**	nd
1,2-Dichlorobenzene	1.0	nd			nd	nd
n-Butylbenzene	1.0	nd			**15**	nd
1,2-Dibromo-3-Chloropropane	1.0	nd			nd	nd
1,2,4-Trichlorobenzene	1.0	nd			nd	nd
Naphthalene	2.0	nd			**14**	nd
Hexachloro-1,3-butadiene	2.0	nd			nd	nd
1,2,3-Trichlorobenzene	2.0	nd			nd	nd

Surrogate recoveries					
Dibromofluoromethane	110%	103%	104%	114%	106%
Toluene-d8	101%	98%	97%	99%	97%
4-Bromofluorobenzene	104%	103%	101%	111%	101%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Stoddard Solvent Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Stoddard Solvent Range Organics (mg/kg)
Method Blank	2/18/2013	2/20/2013	105	nd
LCS	2/18/2013	2/20/2013	111	103%
SB2B-S1	2/18/2013	2/20/2013	114	**65**
SB8-S1	2/18/2013	2/20/2013	113	**310**
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analyses of Stoddard Solvent Range Organics in Water by Method NWTPH-Gx

Sample Number	Date Analyzed	Surrogate Recovery (%)	Stoddard Solvent Range Organics (ug/L)
Method Blank	2/20/2013	106%	nd
LCS	2/20/2013	103%	89%
SB2-W1	2/20/2013	114%	**2200**
Reporting Limits			100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	2/18/2013	2/20/2013	105	nd
LCS	2/18/2013	2/20/2013	111	103%
SB8-S1	2/18/2013	2/20/2013	113	nd
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	2/20/2013	2/20/2013	98	nd	nd
LCS	2/20/2013	2/20/2013	130	116%	---
SB2B-S1	2/20/2013	2/20/2013	92	nd	nd
SB2B-S1 Duplicate	2/20/2013	2/20/2013	97	nd	nd
SB8-S1	2/20/2013	2/20/2013	66	nd	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Chugwater, LLC
ARCOA BLDG PROJECT
Portland, Oregon

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
(360) 459-4670 (360) 459-3432 Fax
lab@esnnw.com

Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	2/18/2013	2/18/2013	75	nd	nd
LCS	2/18/2013	2/18/2013	118	95%	---
SB2-W1	2/18/2013	2/18/2013	72	nd	nd
Reporting Limits				250	500

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

10/23/19

Point Source Solutions
10445 SW Canyon Rd Suite 115
Beaverton, OR 97005

Re: OR190501 - 3

Dear Point Source Solutions

Enclosed are the results of analysis for samples received by the laboratory on 10/22/2019
The results related only to the samples included in this report.
The project was assigned a report number of 90812

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

CY Chan

CY Chan
QA Officer

NW-TPHDx LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Beaverton, OR 97005

SITE NAME: Arcoa Building
SITE LOCATION:
PROJECT NUMBER: OR190501 - 3

C.O.C. NUMBER: 90812
REPORT DATE: 10/23/19

Analytical Method:NW-TPHDx **Preparation Method: EPA 3510C**
Analytes: Total Diesel and Heavy Oil range petroleum in Water

Field ID	LAB ID	Diesel (ug/L)	Heavy Oil (ug/L)	Surrogate Recovery (%)	Analytical Batch	Prepared Batch	Sampling Date
MW1	P2848	**ND**	**ND**	**123%**	**78FL1910221**	**D191022-1**	**10/22/2019**
MW2	P2849	**ND**	**ND**	**114%**	**78FL1910221**	**D191022-1**	**10/22/2019**
MW3	P2850	**ND**	**ND**	**120%**	**78FL1910221**	**D191022-1**	**10/22/2019**
MW4	P2851	**ND**	**ND**	**105%**	**78FL1910221**	**D191022-1**	**10/22/2019**
MW5	P2852	**ND**	**ND**	**129%**	**78FL1910221**	**D191022-1**	**10/22/2019**
Reporting Limit:	--	80	500				
Surrogate Limit:				50%-150%			

Surrogate is 1-ChloroOctadecane

ND = Not Detected at or below the Reporting Limit

Results relate only to samples

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Chemist Initials: CY Chan **Reviewed By:** KBJ

Wy'East

Report Narrative

Method: NWTHP-Dx **Report No.** 90812

Client: Point Source Solutions **Date:** 10/22/2019

Sample Condition

5 sample(s) were analyzed for NWTPH-Dx. Sample(s)were received in acceptable condition

Sample Temperature

Sample(s) arrived within acceptable temperature range

Sample Hold time

sample(s) were analyzed within hold time

Initial Calibration

All criteria were within acceptable limits

Continuing Calibration Check (CCV)

All criteria were within method limits

Method Blank

Method Blank meets method limit

Laboratory Control Sample (LCS)

All criteria were within method limits

Duplicate Sample

No Duplicate was run on this batch

Matrix Spike

All criteria were within method limits

Matrix Spike Duplicate

All criteria were within method limits

Non-Conformance

No non-conformances were associated with this request except noticed below

Quality Control for NWTPH-Dx

Batch Date: 43760

Units: Soil Blank (mg/Kg) Water Blank (mg/L) CCV & LCS (ug/mL)

QC Blank Sample Number	PB	Diesel Result	Oil Result	Blank Control Limits Diesel	Blank Control Limits Oil	Blank CONTROL	Surrogate Recovery	Surrogate Control Limit	Surrogate CONTROL
WBK10221	D191022-1	0.00	0.00	80	100	PASS	117%	50%-150%	PASS

Diesel QC LCS Sample Number	PB	Diesel Result in Extract	Theoretical Spike Concentration	LCS Spike Recovery (%)	LCS Spike Control Limits	LCS Spike CONTROL	Surrogate Recovery	Surrogate Control Limits	Surrogate CONTROL
WLC10221	D191022-1	684.71	819.67	84%	±30%	PASS	118%	50%-150%	PASS

Oil QC LCS Sample Number	PB	Oil Result in Extract	Theoretical Spike Concentration	LCS Spike Recovery (%)	LCS Spike Control Limits	LCS Spike CONTROL	Surrogate Recovery	Surrogate Control Limits	Surrogate CONTROL
WLC10221	D191022-1	726.71	819.67	89%	±30%	PASS	118%	50%-150%	PASS

Diesel MS Sample Number	PB	Sample diesel in Extract	Diesel MS Result	MS Spike Recovery (%)	MS Control Limits	MS CONTROL
WBK77MS	D191022-1	0	835	84%	70%-130%	PASS
WBK77MSD	D191022-1	0	857	86%	70%-130%	PASS

Oil MS Sample Number	PB	Sample oil in Extract	Oil MS Result	MS Spike Recovery (%)	MS Control Limits	MS CONTROL
WBK77MS	D191022-1	0	887	89%	70%-130%	PASS
WBK77MSD	D191022-1	0	894	89%	70%-130%	PASS

Diesel MSD Sample Number	PB	Diesel MS Result	Diesel MSD Result	RPD	RPD Control Limits	MS CONTROL
WBK77MSD	D191022-1	835	857	-3%	±30	PASS

Oil MSD Sample Number	PB	Oil MS Result	Oil MSD Result	RPD	RPD Control Limits	MS CONTROL
WBK77MSD	D191022-1	887	894	-1%	±30%	PASS

NW-TPHGx LABORATORY REPORT

Point Source Solutions
10445 SW Canyon Rd Suite 115
Beaverton, OR 97005

PROJECT NAME: Arcoa Building
SITE LOCATION:
PROJECT NUMBER: OR190501 - 3

C.O.C. NUMBER: 90812
REPORT DATE: 10/23/2019

Analytical Method: NWTPH-Gx Preparation Method: EPA 5030C
Analytes: Gasoline in Water

Field ID	LAB ID	Gasoline (g/L)	Surrogate Recov. (%)	Analytical Batch	Sampling Date
MW1	**P2848**	**< 100**	**115%**	**58PI191022-1**	**10/22/2019**
MW2	**P2849**	**< 100**	**90%**	**58PI191022-1**	**10/22/2019**
MW3	**P2850**	**< 100**	**117%**	**58PI191022-1**	**10/22/2019**
MW4	**P2851**	**941**	**129%**	**58PI191022-1**	**10/22/2019**
MW5	**P2852**	**< 100**	**126%**	**58PI191022-1**	**10/22/2019**
Reporting Limit:	--	100			

Surrogate is p-Bromofluorobenzene

Results relate only to samples.

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Chemist Initials: KBJ

Reviewer Initials: CY Chan

Report Narrative

Method: NWTHP-Gx **Report No.** 90812

Client: Point Source Solutions **Date:** 10/22/2019

Sample Condition
5 sample(s) were analyzed for NWTPH-Gx. Sample(s)were received in acceptable condition

Sample Temperature
Sample(s) arrived within acceptable temperature range

Sample Hold time
sample(s) were analyzed within hold time

Initial Calibration
All criteria were within acceptable limits

Continuing Calibration Check (CCV)
All criteria were within method limts

Method Blank
Method Blank meets method limt

Laboratory Control Sample (LCS)
All criteria were within method limts

Duplicate Sample
No Duplicate was run on this batch

Matrix Spike
All MS criteria were within method limts
All MSD criteria were within method limts

Matrix Spike Duplicate RPD
All criteria were within method limts

Non-Conformance
No non-conformances were associated with this request except noticed below

Quality Control Report for Water NWTPH-Gx

Batch Date 10/22/2019

Blank	*Anal. Batch*	*Result (ug/L)*	*Expected (ug/L)*	*Surr. Recovery*	*Range*
WBK10221	58PI191022-1	19	<100	119%	50%-150%

LCS	*Anal. Batch*	*Result (ug/L)*	*Expected (ug/L)*	*% Recovery*	*Range*
GCCV1	58PI191022-1	917	1000	92%	70%-130%

MS	*Anal. Batch*	*Spike(ug/L)*	*Sample(ug/L)*	*% Recovery*	*Range*
Blk66MS	58PI191022-1	917	19	90%	70%-130%
Blk66MSD	58PI191022-1	903	19	88%	70%-130%

MSD	*Anal. Batch*	*MSD(ug/L)*	*MS Result (ug/L)*	*RPD*	*Range*
Blk66MSD	58PI191022-1	903	917	2%	±30%

2415 SE 11th Ave.
Portland, OR 97214

Phone (503) 231-9320
FAX (503) 231-9344

WyEast
Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214
Phone(503) 231-9320 FAX(503) 231-9344

CHAIN OF CUSTODY

Report Number 90812

Company PSS.	Phone 503-780-1569											Comments	
Project # OR19050 1-3	FAX											CC: Andy	
Project Name Arcoa Building	Purchase Order #												
Site	Report Attention GI	Collected By ATK											
Samples: Temperature 4°C On Ice? (Yes) / No	Turnaround Time: [X] Regular [ ] 3-5 Business Days											Analysis Requested	
LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Rush GX!
P2848	MW1	10/22/19	7:50	W	4	-	X	X					
P2849	MW2	"	8:00	"	4	-	X	X					
P2850	MW3	"	8:50	"	4	-	X	X					
P2851	MW4	"	6:55	"	4	-	X	X					
P2852	MW5	"	6:45	"	4	-	X	X					

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Jake Ren	PSS	10-22-19	10:00	Kyle	WyEast	10/24/19	1206
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

Wy'East
Environmental Sciences Inc.

2415 SE 11th Ave
Portland, OR 97214
Ph: 503-231-9320
Fax: 503-231-9344

Sample Condition Check List

Customer Name: P.S.S **COC #:** 90812

Method of Delivery: courier (client) other

Type of ice: Ice (Blue) None **Cooler Temperature:** 4.0°C

Matrix: Soil (Water) Other

	Yes	No	NA	Comments
Relinquish signed on Chain of Custody.	✓			*
Received by signed on Chain of Custody.	✓			*
Chain of Custody filled out.	✓			*
Were samples Arrived within Hold Time.	✓			*
Rush Trun Around Time Requested. *If yes, how many days* 1	✓			* 6x Next Day
Temperatures measured and written in correct place on COC.	✓			*
Correct containers used.	✓			*
Sufficient Volume.	✓			*
ID on COC and Sample labels match.	✓			*
Duplicate jars and vials labeled with a, b, c, d etc.	✓			*
All tests logged in checked against the COC.	✓			*
The COC scanned into the main office computer.	✓			*

FOR WATER SAMPLES:

Trip Blank: Yes Waiver on file Submitted by:
No

	Yes	No	Comments
Was sufficient volume provided for analysis.	✓		*
Was sufficient volume provided for QC samples (at least two).	✓		*
HCL Preserved vials.	✓		*
HCL LOT Number: BB337CVB5, B17348CVB5			
Were duplicate jars and vials labeled with a, b, c, d etc.	✓		*
Headspace in VOA Vials (>6mm).		✓	*

Client Notification/Resolution:

Comments:

Reviewed: Kyle **Date:** 10/22/19

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Friday, November 8, 2019

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: A9J0847 - Arcoa Building - OR190501-3

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A9J0847, which was received by the laboratory on 10/23/2019 at 11:52:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample reciept, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	3.2	degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	A9J0847-01	Water	10/22/19 07:50	10/23/19 11:52
MW2	A9J0847-02	Water	10/22/19 08:00	10/23/19 11:52
MW3	A9J0847-03	Water	10/22/19 08:50	10/23/19 11:52
MW4	A9J0847-04	Water	10/22/19 06:55	10/23/19 11:52
MW5	A9J0847-05	Water	10/22/19 06:45	10/23/19 11:52

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A9J0847-01)				**Matrix: Water**		**Batch: 9101472**		
Acetone	ND	---	20.0	ug/L	1	10/23/19 22:15	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	10/23/19 22:15	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	10/23/19 22:15	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	10/23/19 22:15	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	10/23/19 22:15	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Chloroform	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	10/23/19 22:15	EPA 8260C	Q-30
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A9J0847-01)				**Matrix: Water**		**Batch: 9101472**		
Ethylbenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/23/19 22:15	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	10/23/19 22:15	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	10/23/19 22:15	EPA 8260C	Q-30
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	10/23/19 22:15	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	10/23/19 22:15	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Tetrachloroethene (PCE)	**0.550**	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	10/23/19 22:15	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	10/23/19 22:15	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	10/23/19 22:15	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*10/23/19 22:15*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/23/19 22:15*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/23/19 22:15*	*EPA 8260C*	
MW2 (A9J0847-02)				**Matrix: Water**		**Batch: 9101472**		
Acetone	ND	---	20.0	ug/L	1	10/23/19 22:42	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	10/23/19 22:42	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A9J0847-02)				**Matrix: Water**		**Batch: 9101472**		
Bromoform	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	10/23/19 22:42	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	10/23/19 22:42	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	10/23/19 22:42	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Chloroform	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	10/23/19 22:42	EPA 8260C	Q-30
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/23/19 22:42	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	10/23/19 22:42	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	10/23/19 22:42	EPA 8260C	Q-30

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A9J0847-02)				**Matrix: Water**		**Batch: 9101472**		
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	10/23/19 22:42	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	10/23/19 22:42	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Tetrachloroethene (PCE)	**0.550**	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	10/23/19 22:42	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	10/23/19 22:42	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	10/23/19 22:42	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*10/23/19 22:42*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*		*80-120 %*	*1*	*10/23/19 22:42*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*	*1*	*10/23/19 22:42*	*EPA 8260C*	
MW3 (A9J0847-03)				**Matrix: Water**		**Batch: 9101472**		
Acetone	ND	---	20.0	ug/L	1	10/24/19 00:30	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	10/24/19 00:30	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	10/24/19 00:30	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	10/24/19 00:30	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A9J0847-03)				**Matrix: Water**		**Batch: 9101472**		
Carbon disulfide	ND	---	10.0	ug/L	1	10/24/19 00:30	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Chloroform	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	10/24/19 00:30	EPA 8260C	Q-30
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/19 00:30	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	10/24/19 00:30	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/19 00:30	EPA 8260C	Q-30
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	10/24/19 00:30	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	10/24/19 00:30	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A9J0847-03)				**Matrix: Water**		**Batch: 9101472**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Tetrachloroethene (PCE)	**0.570**	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	10/24/19 00:30	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	10/24/19 00:30	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	10/24/19 00:30	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits:*	*80-120 %*	*1*	*10/24/19 00:30*	*EPA 8260C*	
Toluene-d8 (Surr)			*97 %*		*80-120 %*	*1*	*10/24/19 00:30*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*10/24/19 00:30*	*EPA 8260C*	
MW4 (A9J0847-04)				**Matrix: Water**		**Batch: 9101532**		
Acetone	ND	---	20.0	ug/L	1	10/24/19 16:33	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	10/24/19 16:33	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	10/24/19 16:33	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	10/24/19 16:33	EPA 8260C	
n-Butylbenzene	**1.90**	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
sec-Butylbenzene	**11.4**	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
tert-Butylbenzene	**1.14**	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	10/24/19 16:33	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Chloroform	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	10/24/19 16:33	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A9J0847-04)				**Matrix: Water**		**Batch: 9101532**		
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
cis-1,2-Dichloroethene	**0.620**	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Ethylbenzene	**0.770**	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/19 16:33	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	10/24/19 16:33	EPA 8260C	
Isopropylbenzene	**6.05**	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/19 16:33	EPA 8260C	Q-30
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	10/24/19 16:33	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	10/24/19 16:33	EPA 8260C	
n-Propylbenzene	**7.73**	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A9J0847-04)				**Matrix: Water**		**Batch: 9101532**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,2,4-Trimethylbenzene	**10.6**	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
1,3,5-Trimethylbenzene	**1.80**	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
Vinyl chloride	**0.550**	---	0.400	ug/L	1	10/24/19 16:33	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	10/24/19 16:33	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	10/24/19 16:33	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 104 %*		*Limits: 80-120 %*	*1*	*10/24/19 16:33*	*EPA 8260C*	
Toluene-d8 (Surr)			*95 %*	*80-120 %*	*1*	*10/24/19 16:33*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*10/24/19 16:33*	*EPA 8260C*	
MW5 (A9J0847-05)				**Matrix: Water**		**Batch: 9101532**		
Acetone	ND	---	20.0	ug/L	1	10/24/19 16:06	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	10/24/19 16:06	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	10/24/19 16:06	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	10/24/19 16:06	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	10/24/19 16:06	EPA 8260C	
Carbon tetrachloride	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Chloroform	**2.76**	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	10/24/19 16:06	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A9J0847-05)				**Matrix: Water**		**Batch: 9101532**		
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2-Dichloropropane	**0.890**	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	10/24/19 16:06	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	10/24/19 16:06	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	10/24/19 16:06	EPA 8260C	Q-30
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	10/24/19 16:06	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	10/24/19 16:06	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Tetrachloroethene (PCE)	**0.940**	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Trichloroethene (TCE)	**0.760**	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A9J0847-05)				**Matrix: Water**		**Batch: 9101532**		
Vinyl chloride	ND	---	0.400	ug/L	1	10/24/19 16:06	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	10/24/19 16:06	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	10/24/19 16:06	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*10/24/19 16:06*	*EPA 8260C*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*10/24/19 16:06*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*10/24/19 16:06*	*EPA 8260C*	

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B							**Water**					
Blank (9101472-BLK1)		Prepared: 10/23/19 10:00		Analyzed: 10/23/19 14:37								
EPA 8260C												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B							**Water**					
Blank (9101472-BLK1)		Prepared: 10/23/19 10:00		Analyzed: 10/23/19 14:37								
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	Q-30
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 106 %*		*Limits: 80-120 %*					*Dilution: 1x*			

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B												**Water**
Blank (9101472-BLK1)			Prepared: 10/23/19 10:00 Analyzed: 10/23/19 14:37									
Surr: Toluene-d8 (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*				*Dilution: 1x*				
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*				*"*				
LCS (9101472-BS1)			Prepared: 10/23/19 10:00 Analyzed: 10/23/19 13:35									
EPA 8260C												
Acetone	30.2	---	20.0	ug/L	1	40.0	---	**76**	**80 - 120%**	---	---	Q-55
Acrylonitrile	15.4	---	2.00	ug/L	1	20.0	---	**77**	**80 - 120%**	---	---	Q-55
Benzene	18.2	---	0.200	ug/L	1	20.0	---	91	80 - 120%	---	---	
Bromobenzene	20.0	---	0.500	ug/L	1	20.0	---	100	80 - 120%	---	---	
Bromochloromethane	17.9	---	1.00	ug/L	1	20.0	---	90	80 - 120%	---	---	
Bromodichloromethane	23.1	---	1.00	ug/L	1	20.0	---	116	80 - 120%	---	---	
Bromoform	25.7	---	1.00	ug/L	1	20.0	---	**129**	**80 - 120%**	---	---	Q-56
Bromomethane	20.2	---	5.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
2-Butanone (MEK)	35.1	---	10.0	ug/L	1	40.0	---	88	80 - 120%	---	---	
n-Butylbenzene	20.3	---	1.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
sec-Butylbenzene	19.6	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
tert-Butylbenzene	18.4	---	1.00	ug/L	1	20.0	---	92	80 - 120%	---	---	
Carbon disulfide	19.7	---	10.0	ug/L	1	20.0	---	99	80 - 120%	---	---	
Carbon tetrachloride	30.6	---	1.00	ug/L	1	20.0	---	**153**	**80 - 120%**	---	---	Q-56
Chlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80 - 120%	---	---	
Chloroethane	20.1	---	5.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
Chloroform	18.9	---	1.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
Chloromethane	15.1	---	5.00	ug/L	1	20.0	---	**75**	**80 - 120%**	---	---	Q-55
2-Chlorotoluene	19.7	---	1.00	ug/L	1	20.0	---	99	80 - 120%	---	---	
4-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
Dibromochloromethane	23.0	---	1.00	ug/L	1	20.0	---	115	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	23.8	---	5.00	ug/L	1	20.0	---	119	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	19.8	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Dibromomethane	20.8	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,2-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,3-Dichlorobenzene	20.4	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,4-Dichlorobenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80 - 120%	---	---	
Dichlorodifluoromethane	18.7	---	1.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
1,1-Dichloroethane	18.4	---	0.400	ug/L	1	20.0	---	92	80 - 120%	---	---	

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B							**Water**					
LCS (9101472-BS1)		Prepared: 10/23/19 10:00		Analyzed: 10/23/19 13:35								
1,2-Dichloroethane (EDC)	18.6	---	0.400	ug/L	1	20.0	---	93	80 - 120%	---	---	
1,1-Dichloroethene	16.5	---	0.400	ug/L	1	20.0	---	83	80 - 120%	---	---	
cis-1,2-Dichloroethene	17.6	---	0.400	ug/L	1	20.0	---	88	80 - 120%	---	---	
trans-1,2-Dichloroethene	17.9	---	0.400	ug/L	1	20.0	---	90	80 - 120%	---	---	
1,2-Dichloropropane	17.6	---	0.500	ug/L	1	20.0	---	88	80 - 120%	---	---	
1,3-Dichloropropane	18.7	---	1.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
2,2-Dichloropropane	29.2	---	1.00	ug/L	1	20.0	---	**146**	**80 - 120%**	---	---	Q-56
1,1-Dichloropropene	19.3	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
cis-1,3-Dichloropropene	20.7	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
trans-1,3-Dichloropropene	21.6	---	1.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
Ethylbenzene	19.0	---	0.500	ug/L	1	20.0	---	95	80 - 120%	---	---	
Hexachlorobutadiene	21.9	---	5.00	ug/L	1	20.0	---	110	80 - 120%	---	---	
2-Hexanone	34.7	---	10.0	ug/L	1	40.0	---	87	80 - 120%	---	---	
Isopropylbenzene	20.7	---	1.00	ug/L	1	20.0	---	103	80 - 120%	---	---	
4-Isopropyltoluene	20.4	---	1.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	20.0	---	**42**	**80 - 120%**	---	---	Q-55
4-Methyl-2-pentanone (MiBK)	36.4	---	10.0	ug/L	1	40.0	---	91	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	20.6	---	1.00	ug/L	1	20.0	---	103	80 - 120%	---	---	
Naphthalene	17.9	---	2.00	ug/L	1	20.0	---	90	80 - 120%	---	---	
n-Propylbenzene	18.6	---	0.500	ug/L	1	20.0	---	93	80 - 120%	---	---	
Styrene	20.5	---	1.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	23.6	---	0.400	ug/L	1	20.0	---	118	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	19.2	---	0.500	ug/L	1	20.0	---	96	80 - 120%	---	---	
Tetrachloroethene (PCE)	20.4	---	0.400	ug/L	1	20.0	---	102	80 - 120%	---	---	
Toluene	17.9	---	1.00	ug/L	1	20.0	---	90	80 - 120%	---	---	
1,2,3-Trichlorobenzene	20.8	---	2.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,2,4-Trichlorobenzene	20.0	---	2.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
1,1,1-Trichloroethane	23.5	---	0.400	ug/L	1	20.0	---	118	80 - 120%	---	---	
1,1,2-Trichloroethane	19.2	---	0.500	ug/L	1	20.0	---	96	80 - 120%	---	---	
Trichloroethene (TCE)	19.1	---	0.400	ug/L	1	20.0	---	96	80 - 120%	---	---	
Trichlorofluoromethane	19.1	---	2.00	ug/L	1	20.0	---	95	80 - 120%	---	---	
1,2,3-Trichloropropane	19.1	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
1,2,4-Trimethylbenzene	20.9	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,3,5-Trimethylbenzene	20.4	---	1.00	ug/L	1	20.0	---	102	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B							**Water**					
LCS (9101472-BS1)		Prepared: 10/23/19 10:00		Analyzed: 10/23/19 13:35								
Vinyl chloride	16.5	---	0.400	ug/L	1	20.0	---	82	80 - 120%	---	---	
m,p-Xylene	40.0	---	1.00	ug/L	1	40.0	---	100	80 - 120%	---	---	
o-Xylene	19.7	---	0.500	ug/L	1	20.0	---	98	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*97 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*101 %*		*80-120 %*			*"*					
Matrix Spike (9101472-MS1)		Prepared: 10/23/19 15:14		Analyzed: 10/24/19 00:57								
QC Source Sample: MW3 (A9J0847-03)												
EPA 8260C												
Acetone	34.5	---	20.0	ug/L	1	40.0	ND	86	39 - 160%	---	---	Q-54k
Acrylonitrile	16.4	---	2.00	ug/L	1	20.0	ND	82	63 - 135%	---	---	Q-54h
Benzene	19.7	---	0.200	ug/L	1	20.0	ND	98	79 - 120%	---	---	
Bromobenzene	20.1	---	0.500	ug/L	1	20.0	ND	100	80 - 120%	---	---	
Bromochloromethane	19.6	---	1.00	ug/L	1	20.0	ND	98	78 - 123%	---	---	
Bromodichloromethane	24.1	---	1.00	ug/L	1	20.0	ND	120	79 - 125%	---	---	
Bromoform	26.0	---	1.00	ug/L	1	20.0	ND	130	66 - 130%	---	---	Q-54g
Bromomethane	22.6	---	5.00	ug/L	1	20.0	ND	113	53 - 141%	---	---	
2-Butanone (MEK)	37.2	---	10.0	ug/L	1	40.0	ND	93	56 - 143%	---	---	
n-Butylbenzene	19.2	---	1.00	ug/L	1	20.0	ND	96	75 - 128%	---	---	
sec-Butylbenzene	19.8	---	1.00	ug/L	1	20.0	ND	99	77 - 126%	---	---	
tert-Butylbenzene	19.4	---	1.00	ug/L	1	20.0	ND	97	78 - 124%	---	---	
Carbon disulfide	21.0	---	10.0	ug/L	1	20.0	ND	105	64 - 133%	---	---	
Carbon tetrachloride	33.0	---	1.00	ug/L	1	20.0	ND	**165**	**72 - 136%**	---	---	Q-54c
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	80 - 120%	---	---	
Chloroethane	25.0	---	5.00	ug/L	1	20.0	ND	125	60 - 138%	---	---	
Chloroform	21.1	---	1.00	ug/L	1	20.0	0.970	100	79 - 124%	---	---	
Chloromethane	17.4	---	5.00	ug/L	1	20.0	ND	87	50 - 139%	---	---	Q-54l
2-Chlorotoluene	19.9	---	1.00	ug/L	1	20.0	ND	100	79 - 122%	---	---	
4-Chlorotoluene	19.4	---	1.00	ug/L	1	20.0	ND	97	78 - 122%	---	---	
Dibromochloromethane	23.4	---	1.00	ug/L	1	20.0	ND	117	74 - 126%	---	---	
1,2-Dibromo-3-chloropropane	23.5	---	5.00	ug/L	1	20.0	ND	118	62 - 128%	---	---	
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	ND	102	77 - 121%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	ND	108	79 - 123%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B							**Water**					
Matrix Spike (9101472-MS1)		Prepared: 10/23/19 15:14		Analyzed: 10/24/19 00:57								
QC Source Sample: MW3 (A9J0847-03)												
1,2-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80 - 120%	---	---	
1,3-Dichlorobenzene	20.6	---	0.500	ug/L	1	20.0	ND	103	80 - 120%	---	---	
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	ND	94	79 - 120%	---	---	
Dichlorodifluoromethane	19.9	---	1.00	ug/L	1	20.0	ND	99	32 - 152%	---	---	
1,1-Dichloroethane	19.7	---	0.400	ug/L	1	20.0	ND	99	77 - 125%	---	---	
1,2-Dichloroethane (EDC)	19.2	---	0.400	ug/L	1	20.0	ND	96	73 - 128%	---	---	
1,1-Dichloroethene	17.9	---	0.400	ug/L	1	20.0	ND	89	71 - 131%	---	---	
cis-1,2-Dichloroethene	18.9	---	0.400	ug/L	1	20.0	ND	95	78 - 123%	---	---	
trans-1,2-Dichloroethene	19.3	---	0.400	ug/L	1	20.0	ND	96	75 - 124%	---	---	
1,2-Dichloropropane	18.8	---	0.500	ug/L	1	20.0	ND	94	78 - 122%	---	---	
1,3-Dichloropropane	19.2	---	1.00	ug/L	1	20.0	ND	96	80 - 120%	---	---	
2,2-Dichloropropane	25.7	---	1.00	ug/L	1	20.0	ND	128	60 - 139%	---	---	Q-54a
1,1-Dichloropropene	20.5	---	1.00	ug/L	1	20.0	ND	102	79 - 125%	---	---	
cis-1,3-Dichloropropene	19.3	---	1.00	ug/L	1	20.0	ND	96	75 - 124%	---	---	
trans-1,3-Dichloropropene	21.5	---	1.00	ug/L	1	20.0	ND	108	73 - 127%	---	---	
Ethylbenzene	19.9	---	0.500	ug/L	1	20.0	ND	100	79 - 121%	---	---	
Hexachlorobutadiene	19.9	---	5.00	ug/L	1	20.0	ND	100	66 - 134%	---	---	
2-Hexanone	37.7	---	10.0	ug/L	1	40.0	ND	94	57 - 139%	---	---	
Isopropylbenzene	21.6	---	1.00	ug/L	1	20.0	ND	108	72 - 131%	---	---	
4-Isopropyltoluene	20.3	---	1.00	ug/L	1	20.0	ND	102	77 - 127%	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	20.0	ND	**42**	**74 - 124%**	---	---	Q-54j
4-Methyl-2-pentanone (MiBK)	38.7	---	10.0	ug/L	1	40.0	ND	97	67 - 130%	---	---	
Methyl tert-butyl ether (MTBE)	21.3	---	1.00	ug/L	1	20.0	ND	106	71 - 124%	---	---	
Naphthalene	18.0	---	2.00	ug/L	1	20.0	ND	90	61 - 128%	---	---	
n-Propylbenzene	18.9	---	0.500	ug/L	1	20.0	ND	95	76 - 126%	---	---	
Styrene	21.2	---	1.00	ug/L	1	20.0	ND	106	78 - 123%	---	---	
1,1,1,2-Tetrachloroethane	24.8	---	0.400	ug/L	1	20.0	ND	124	78 - 124%	---	---	
1,1,2,2-Tetrachloroethane	20.2	---	0.500	ug/L	1	20.0	ND	101	71 - 121%	---	---	
Tetrachloroethene (PCE)	21.1	---	0.400	ug/L	1	20.0	0.570	103	74 - 129%	---	---	
Toluene	18.9	---	1.00	ug/L	1	20.0	ND	95	80 - 121%	---	---	
1,2,3-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	ND	100	69 - 129%	---	---	
1,2,4-Trichlorobenzene	19.1	---	2.00	ug/L	1	20.0	ND	96	69 - 130%	---	---	
1,1,1-Trichloroethane	25.4	---	0.400	ug/L	1	20.0	ND	127	74 - 131%	---	---	

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101472 - EPA 5030B							**Water**					
Matrix Spike (9101472-MS1)		Prepared: 10/23/19 15:14		Analyzed: 10/24/19 00:57								
QC Source Sample: MW3 (A9J0847-03)												
1,1,2-Trichloroethane	20.1	---	0.500	ug/L	1	20.0	ND	101	80 - 120%	---	---	
Trichloroethene (TCE)	19.9	---	0.400	ug/L	1	20.0	0.220	98	79 - 123%	---	---	
Trichlorofluoromethane	20.6	---	2.00	ug/L	1	20.0	ND	103	65 - 141%	---	---	
1,2,3-Trichloropropane	19.9	---	1.00	ug/L	1	20.0	ND	99	73 - 122%	---	---	
1,2,4-Trimethylbenzene	21.1	---	1.00	ug/L	1	20.0	ND	106	76 - 124%	---	---	
1,3,5-Trimethylbenzene	20.8	---	1.00	ug/L	1	20.0	ND	104	75 - 124%	---	---	
Vinyl chloride	18.8	---	0.400	ug/L	1	20.0	ND	94	58 - 137%	---	---	
m,p-Xylene	41.8	---	1.00	ug/L	1	40.0	ND	104	80 - 121%	---	---	
o-Xylene	20.9	---	0.500	ug/L	1	20.0	ND	104	78 - 122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*96 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101532 - EPA 5030B							**Water**					
Blank (9101532-BLK1)		Prepared: 10/24/19 09:00		Analyzed: 10/24/19 11:09								
EPA 8260C												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101532 - EPA 5030B							**Water**					
Blank (9101532-BLK1)		Prepared: 10/24/19 09:00		Analyzed: 10/24/19 11:09								
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	Q-30
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 105 %*		*Limits: 80-120 %*					*Dilution: 1x*			

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101532 - EPA 5030B												**Water**
Blank (9101532-BLK1)			Prepared: 10/24/19 09:00 Analyzed: 10/24/19 11:09									
Surr: Toluene-d8 (Surr)			*Recovery: 97 %*	*Limits: 80-120 %*				*Dilution: 1x*				
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*				*"*				
LCS (9101532-BS1)			Prepared: 10/24/19 09:00 Analyzed: 10/24/19 10:15									
EPA 8260C												
Acetone	32.2	---	20.0	ug/L	1	40.0	---	80	80 - 120%	---	---	
Acrylonitrile	16.3	---	2.00	ug/L	1	20.0	---	81	80 - 120%	---	---	
Benzene	19.1	---	0.200	ug/L	1	20.0	---	96	80 - 120%	---	---	
Bromobenzene	20.6	---	0.500	ug/L	1	20.0	---	103	80 - 120%	---	---	
Bromochloromethane	18.5	---	1.00	ug/L	1	20.0	---	92	80 - 120%	---	---	
Bromodichloromethane	23.8	---	1.00	ug/L	1	20.0	---	119	80 - 120%	---	---	
Bromoform	26.5	---	1.00	ug/L	1	20.0	---	**132**	**80 - 120%**	---	---	Q-56
Bromomethane	21.5	---	5.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
2-Butanone (MEK)	36.2	---	10.0	ug/L	1	40.0	---	91	80 - 120%	---	---	
n-Butylbenzene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
sec-Butylbenzene	20.0	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
tert-Butylbenzene	19.2	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
Carbon disulfide	20.2	---	10.0	ug/L	1	20.0	---	101	80 - 120%	---	---	
Carbon tetrachloride	32.3	---	1.00	ug/L	1	20.0	---	**162**	**80 - 120%**	---	---	Q-56
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Chloroethane	21.4	---	5.00	ug/L	1	20.0	---	107	80 - 120%	---	---	
Chloroform	19.7	---	1.00	ug/L	1	20.0	---	99	80 - 120%	---	---	
Chloromethane	15.4	---	5.00	ug/L	1	20.0	---	**77**	**80 - 120%**	---	---	Q-55
2-Chlorotoluene	20.1	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
4-Chlorotoluene	19.3	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
Dibromochloromethane	24.0	---	1.00	ug/L	1	20.0	---	120	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	24.7	---	5.00	ug/L	1	20.0	---	**123**	**80 - 120%**	---	---	Q-56
1,2-Dibromoethane (EDB)	20.5	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
Dibromomethane	21.6	---	1.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
1,2-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,3-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,4-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80 - 120%	---	---	
Dichlorodifluoromethane	18.1	---	1.00	ug/L	1	20.0	---	91	80 - 120%	---	---	
1,1-Dichloroethane	19.3	---	0.400	ug/L	1	20.0	---	97	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101532 - EPA 5030B							**Water**					
LCS (9101532-BS1)		Prepared: 10/24/19 09:00		Analyzed: 10/24/19 10:15								
1,2-Dichloroethane (EDC)	19.2	---	0.400	ug/L	1	20.0	---	96	80 - 120%	---	---	
1,1-Dichloroethene	17.2	---	0.400	ug/L	1	20.0	---	86	80 - 120%	---	---	
cis-1,2-Dichloroethene	18.4	---	0.400	ug/L	1	20.0	---	92	80 - 120%	---	---	
trans-1,2-Dichloroethene	18.8	---	0.400	ug/L	1	20.0	---	94	80 - 120%	---	---	
1,2-Dichloropropane	18.4	---	0.500	ug/L	1	20.0	---	92	80 - 120%	---	---	
1,3-Dichloropropane	19.4	---	1.00	ug/L	1	20.0	---	97	80 - 120%	---	---	
2,2-Dichloropropane	31.0	---	1.00	ug/L	1	20.0	---	**155**	**80 - 120%**	---	---	Q-56
1,1-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
cis-1,3-Dichloropropene	21.7	---	1.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
trans-1,3-Dichloropropene	22.4	---	1.00	ug/L	1	20.0	---	112	80 - 120%	---	---	
Ethylbenzene	19.7	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Hexachlorobutadiene	21.9	---	5.00	ug/L	1	20.0	---	109	80 - 120%	---	---	
2-Hexanone	36.8	---	10.0	ug/L	1	40.0	---	92	80 - 120%	---	---	
Isopropylbenzene	21.3	---	1.00	ug/L	1	20.0	---	106	80 - 120%	---	---	
4-Isopropyltoluene	20.8	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	20.0	---	**44**	**80 - 120%**	---	---	Q-55
4-Methyl-2-pentanone (MiBK)	38.2	---	10.0	ug/L	1	40.0	---	95	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	21.4	---	1.00	ug/L	1	20.0	---	107	80 - 120%	---	---	
Naphthalene	18.4	---	2.00	ug/L	1	20.0	---	92	80 - 120%	---	---	
n-Propylbenzene	19.1	---	0.500	ug/L	1	20.0	---	95	80 - 120%	---	---	
Styrene	21.1	---	1.00	ug/L	1	20.0	---	106	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	25.0	---	0.400	ug/L	1	20.0	---	**125**	**80 - 120%**	---	---	Q-56
1,1,2,2-Tetrachloroethane	20.3	---	0.500	ug/L	1	20.0	---	101	80 - 120%	---	---	
Tetrachloroethene (PCE)	21.0	---	0.400	ug/L	1	20.0	---	105	80 - 120%	---	---	
Toluene	18.8	---	1.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
1,2,3-Trichlorobenzene	21.4	---	2.00	ug/L	1	20.0	---	107	80 - 120%	---	---	
1,2,4-Trichlorobenzene	20.1	---	2.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
1,1,1-Trichloroethane	24.5	---	0.400	ug/L	1	20.0	---	**123**	**80 - 120%**	---	---	Q-56
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	---	100	80 - 120%	---	---	
Trichloroethene (TCE)	19.8	---	0.400	ug/L	1	20.0	---	99	80 - 120%	---	---	
Trichlorofluoromethane	19.4	---	2.00	ug/L	1	20.0	---	97	80 - 120%	---	---	
1,2,3-Trichloropropane	20.3	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
1,2,4-Trimethylbenzene	21.6	---	1.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
1,3,5-Trimethylbenzene	20.9	---	1.00	ug/L	1	20.0	---	105	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A9J0847 - 11 08 19 1654**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9101532 - EPA 5030B												**Water**
LCS (9101532-BS1)		Prepared: 10/24/19 09:00		Analyzed: 10/24/19 10:15								
Vinyl chloride	17.0	---	0.400	ug/L	1	20.0	---	85	80 - 120%	---	---	
m,p-Xylene	41.3	---	1.00	ug/L	1	40.0	---	103	80 - 120%	---	---	
o-Xylene	20.4	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*98 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*			*"*					

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SAMPLE PREPARATION INFORMATION

Volatile Organic Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9101472							
A9J0847-01	Water	EPA 8260C	10/22/19 07:50	10/23/19 15:14	5mL/5mL	5mL/5mL	1.00
A9J0847-02	Water	EPA 8260C	10/22/19 08:00	10/23/19 15:14	5mL/5mL	5mL/5mL	1.00
A9J0847-03	Water	EPA 8260C	10/22/19 08:50	10/23/19 15:14	5mL/5mL	5mL/5mL	1.00
Batch: 9101532							
A9J0847-04	Water	EPA 8260C	10/22/19 06:55	10/24/19 12:04	5mL/5mL	5mL/5mL	1.00
A9J0847-05	Water	EPA 8260C	10/22/19 06:45	10/24/19 12:04	5mL/5mL	5mL/5mL	1.00

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

Q-30	Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +26%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +33%. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by +9%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -3%. The results are reported as Estimated Values.
Q-54j	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -38%. The results are reported as Estimated Values.
Q-54k	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -4%. The results are reported as Estimated Values.
Q-54l	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by -5%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260C, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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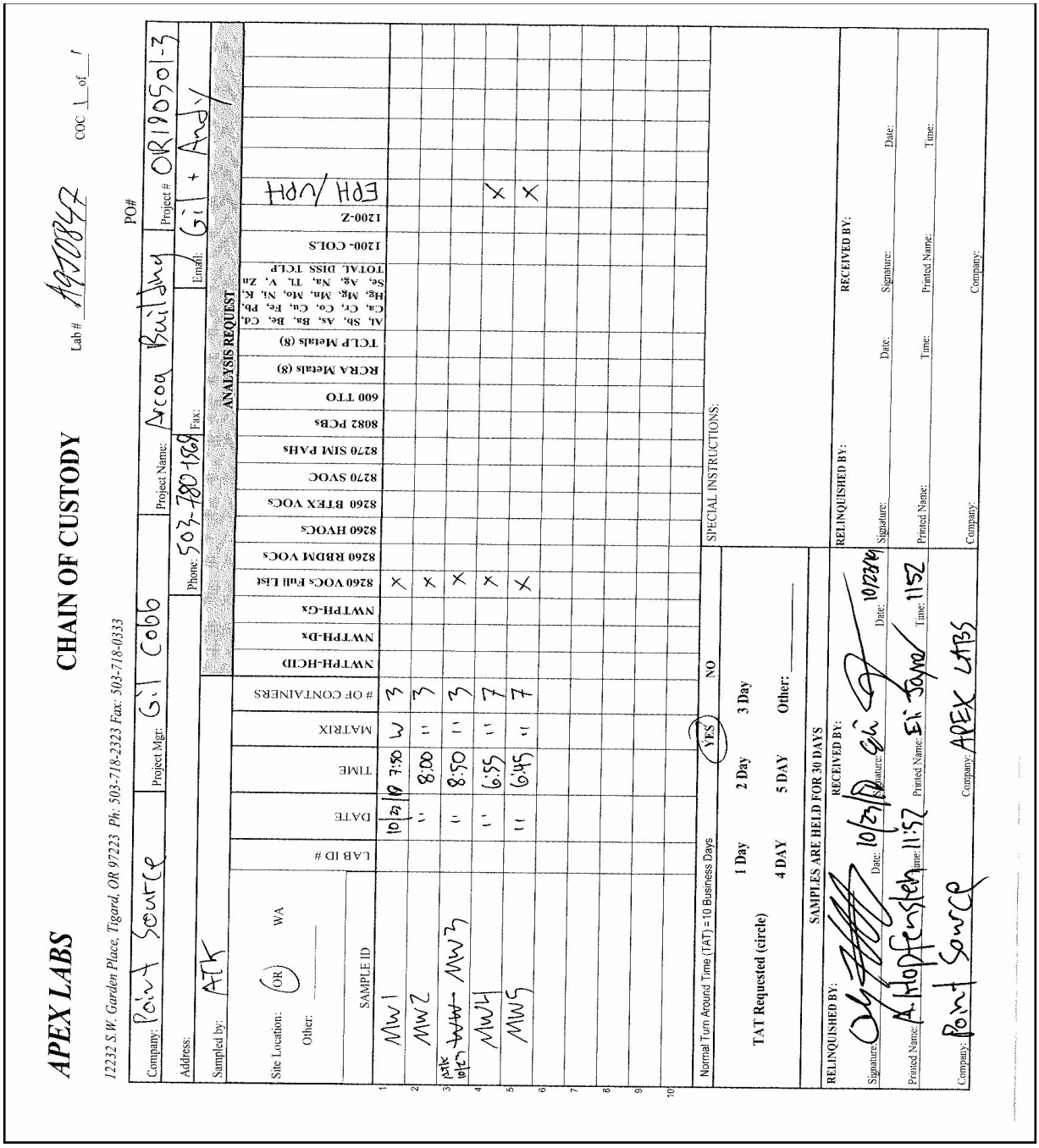

APEX LABS
12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A9J0847 COC 1 of 1 PO#

Company: Point Source | Project Mgr: Gil Cobb | Project Name: Arcoa Building | Project # OR190501-3
Address: | Phone: 503-780-1869 Fax: | Email: Gil + Andy
Sampled by: ATK

Site Location: (OR) WA
Other: _____

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z	EDH / DRO
1 MW1		10/21/19	7:50	W	3				X												
2 MW2		"	8:00	"	3				X												
3 MW3		"	8:50	"	3				X												
4 MW4		"	6:55	"	7				X												X
5 MW5		"	6:45	"	7				X												X
6																					
7																					
8																					
9																					
10																					

Normal Turn Around Time (TAT) = 10 Business Days (YES) NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle)
1 Day 2 Day 3 Day
4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:
Signature: [signature] Date: 10/23/19
Printed Name: A. Hoffenstein Time: 11:57
Company: Point Source

RECEIVED BY:
Signature: [signature] Date: 10/23/19
Printed Name: Eli Jayne Time: 1152
Company: APEX LABS

RELINQUISHED BY:
Signature: _____ Date: _____
Printed Name: _____ Time: _____
Company: _____

RECEIVED BY:
Signature: _____ Date: _____
Printed Name: _____ Time: _____
Company: _____

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APEX LABS COOLER RECEIPT FORM

Client: Point Source Element WO#: A9 J0847

Project/Project #: Arcoa Building OR 190501-3

Delivery Info:

Date/time received: 10/23/19 @ 1152 By: EJ

Delivered by: Apex____Client X ESS____FedEx____UPS____Swift___Senvoy ___SDS___Other_____

Cooler Inspection Date/time inspected: 10/23/19 @ 1152 By: EJ

Chain of Custody included? Yes X No ___ Custody seals? Yes_____ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	3.2						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel						
Condition:	Good						

Cooler out of temp? (Y(N) Possible reason why:_____

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/(NA)

Out of temperature samples form initiated? Yes/No/(NA)

Samples Inspection: Date/time inspected: 10/23/19 @ 1210 By: MS

All samples intact? Yes X No ___ Comments:_____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA ____

Comments_____

Water samples: pH checked: Yes X No___NA___ pH appropriate? Yes X No___NA____

Comments: _____

Additional information: _____

Labeled by: MS Witness: EJ Cooler Inspected by: EJ See Project Contact Form: Y

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Kevin J. Friscia, Project Manager

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Laboratories
Kevin Friscia
6700 SW Sandburg St
Tigard, OR 97223

RE: A9J0847
Work Order Number: 1910458

November 08, 2019

Attention Kevin Friscia:

Fremont Analytical, Inc. received 2 sample(s) on 10/25/2019 for the analyses presented in the following report.

Extractable Petroleum Hydrocarbons by NWEPH
Volatile Petroleum Hydrocarbons by NWVPH

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *11/08/2019*

CLIENT: Apex Laboratories
Project: A9J0847
Work Order: 1910458

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1910458-001	MW4	10/22/2019 6:55 AM	10/25/2019 9:29 AM
1910458-002	MW5	10/22/2019 6:45 AM	10/25/2019 9:29 AM

Case Narrative

WO#: **1910458**
Date: **11/8/2019**

CLIENT: Apex Laboratories
Project: A9J0847

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Client: Apex Laboratories
Collection Date: 10/22/2019 6:55:00 AM
Project: A9J0847
Lab ID: 1910458-001
Matrix:
Client Sample ID: **MW4**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 26341		Analyst: DW
Aliphatic Hydrocarbon (C10-C12)	ND	19.9		µg/L	1	11/5/2019 5:20:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	19.9		µg/L	1	11/5/2019 5:20:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	19.9		µg/L	1	11/5/2019 5:20:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	19.9		µg/L	1	11/5/2019 5:20:00 PM
Aliphatic Hydrocarbon (C8-C10)	ND	39.8	*	µg/L	1	11/5/2019 5:20:00 PM
Aromatic Hydrocarbon (C10-C12)	ND	19.9		µg/L	1	11/6/2019 5:41:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	19.9		µg/L	1	11/6/2019 5:41:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	19.9		µg/L	1	11/6/2019 5:41:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	19.9	*	µg/L	1	11/6/2019 5:41:00 AM
Aromatic Hydrocarbon (C8-C10)	ND	19.9		µg/L	1	11/6/2019 5:41:00 AM
Surr: 1-Chlorooctadecane	54.6	60 - 140	S	%Rec	1	11/5/2019 5:20:00 PM
Surr: o-Terphenyl	80.6	60 - 140		%Rec	1	11/6/2019 5:41:00 AM

NOTES:
* - Flagged value is not within established control limits.
S - Outlying surrogate recovery(ies) observed.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 26325		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	40.0		µg/L	1	10/30/2019 6:33:15 PM
Aliphatic Hydrocarbon (C6-C8)	49.9	20.0		µg/L	1	10/30/2019 6:33:15 PM
Aliphatic Hydrocarbon (C8-C10)	103	20.0		µg/L	1	10/30/2019 6:33:15 PM
Aliphatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
Aromatic Hydrocarbon (C8-C10)	116	50.0		µg/L	1	10/30/2019 6:33:15 PM
Aromatic Hydrocarbon (C10-C12)	292	20.0		µg/L	1	10/30/2019 6:33:15 PM
Aromatic Hydrocarbon (C12-C13)	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
Benzene	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
Toluene	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
Ethylbenzene	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
m,p-Xylene	ND	40.0		µg/L	1	10/30/2019 6:33:15 PM
o-Xylene	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
Naphthalene	ND	20.0		µg/L	1	10/30/2019 6:33:15 PM
Methyl tert-butyl ether (MTBE)	ND	20.0	Q	µg/L	1	10/30/2019 6:33:15 PM
Surr: 1,4-Difluorobenzene	98.0	65 - 140		%Rec	1	10/30/2019 6:33:15 PM
Surr: Bromofluorobenzene	109	65 - 140		%Rec	1	10/30/2019 6:33:15 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Client: Apex Laboratories
Collection Date: 10/22/2019 6:45:00 AM
Project: A9J0847
Lab ID: 1910458-002
Matrix:
Client Sample ID: **MW5**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batch ID: 26341		Analyst: DW
Aliphatic Hydrocarbon (C10-C12)	ND	19.8		µg/L	1	11/5/2019 6:04:00 PM
Aliphatic Hydrocarbon (C12-C16)	ND	19.8		µg/L	1	11/5/2019 6:04:00 PM
Aliphatic Hydrocarbon (C16-C21)	ND	19.8		µg/L	1	11/5/2019 6:04:00 PM
Aliphatic Hydrocarbon (C21-C34)	ND	19.8		µg/L	1	11/5/2019 6:04:00 PM
Aliphatic Hydrocarbon (C8-C10)	ND	39.6	*	µg/L	1	11/5/2019 6:04:00 PM
Aromatic Hydrocarbon (C10-C12)	ND	19.8		µg/L	1	11/6/2019 6:25:00 AM
Aromatic Hydrocarbon (C12-C16)	ND	19.8		µg/L	1	11/6/2019 6:25:00 AM
Aromatic Hydrocarbon (C16-C21)	ND	19.8		µg/L	1	11/6/2019 6:25:00 AM
Aromatic Hydrocarbon (C21-C34)	ND	19.8	*	µg/L	1	11/6/2019 6:25:00 AM
Aromatic Hydrocarbon (C8-C10)	ND	19.8		µg/L	1	11/6/2019 6:25:00 AM
Surr: 1-Chlorooctadecane	76.6	60 - 140		%Rec	1	11/5/2019 6:04:00 PM
Surr: o-Terphenyl	89.0	60 - 140		%Rec	1	11/6/2019 6:25:00 AM

NOTES:
* - Flagged value is not within established control limits.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbons by NWVPH				Batch ID: 26325		Analyst: CR
Aliphatic Hydrocarbon (C5-C6)	ND	40.0		µg/L	1	10/30/2019 7:14:25 PM
Aliphatic Hydrocarbon (C6-C8)	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Aliphatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		µg/L	1	10/30/2019 7:14:25 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Aromatic Hydrocarbon (C12-C13)	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Benzene	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Toluene	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Ethylbenzene	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
m,p-Xylene	ND	40.0		µg/L	1	10/30/2019 7:14:25 PM
o-Xylene	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Naphthalene	ND	20.0		µg/L	1	10/30/2019 7:14:25 PM
Methyl tert-butyl ether (MTBE)	ND	20.0	Q	µg/L	1	10/30/2019 7:14:25 PM
Surr: 1,4-Difluorobenzene	99.2	65 - 140		%Rec	1	10/30/2019 7:14:25 PM
Surr: Bromofluorobenzene	106	65 - 140		%Rec	1	10/30/2019 7:14:25 PM

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **MB-26341**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **10/31/2019**	RunNo: **55104**
Client ID: **MBLKW**	Batch ID: **26341**		Analysis Date: **11/5/2019**	SeqNo: **1094721**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	ND	19.9		0	0						
Aliphatic Hydrocarbon (C12-C16)	ND	19.9		0	0						
Aliphatic Hydrocarbon (C16-C21)	ND	19.9		0	0						
Aliphatic Hydrocarbon (C21-C34)	ND	19.9		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	39.9		0	0						*
Surr: 1-Chlorooctadecane	1,350		1,993		67.7	60	140				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **LCS-26341**	SampType: **LCS**	Units: **µg/L**	Prep Date: **10/31/2019**	RunNo: **55104**
Client ID: **LCSW**	Batch ID: **26341**		Analysis Date: **11/5/2019**	SeqNo: **1094720**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	1,790	19.9	2,487	0	72.1	70	130				
Aliphatic Hydrocarbon (C12-C16)	2,320	19.9	2,487	0	93.3	70	130				
Aliphatic Hydrocarbon (C16-C21)	2,310	19.9	2,487	0	93.0	70	130				
Aliphatic Hydrocarbon (C21-C34)	2,040	19.9	2,487	0	81.9	70	130				
Aliphatic Hydrocarbon (C8-C10)	1,960	39.8	4,975	0	39.4	70	130				S
Surr: 1-Chlorooctadecane	1,490		1,990		74.9	60	140				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **1910514-001BDUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **10/31/2019**	RunNo: **55104**
Client ID: **BATCH**	Batch ID: **26341**		Analysis Date: **11/5/2019**	SeqNo: **1094719**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	ND	20.0		0	0			0		25	
Aliphatic Hydrocarbon (C12-C16)	ND	20.0		0	0			0		25	
Aliphatic Hydrocarbon (C16-C21)	ND	20.0		0	0			0		25	
Aliphatic Hydrocarbon (C21-C34)	ND	20.0		0	0			0		25	
Aliphatic Hydrocarbon (C8-C10)	ND	40.0		0	0			0		25	*
Surr: 1-Chlorooctadecane	1,370		2,001		68.7	60	140		0		

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **1910514-001BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/5/2019** SeqNo: **1094719**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **1910514-002BMS** SampType: **MS** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/5/2019** SeqNo: **1094722**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	1,780	20.0	2,497	0	71.3	70	130				
Aliphatic Hydrocarbon (C12-C16)	2,360	20.0	2,497	0	94.4	70	130				
Aliphatic Hydrocarbon (C16-C21)	2,370	20.0	2,497	0	94.8	70	130				
Aliphatic Hydrocarbon (C21-C34)	2,250	20.0	2,497	0	90.1	70	130				
Aliphatic Hydrocarbon (C8-C10)	1,580	40.0	4,995	0	31.7	70	130				S
Surr: 1-Chlorooctadecane	1,320		1,998		66.3	60	140				

NOTES:
S - Outlying spike recovery observed (low bias).

Sample ID: **1910514-002BMSD** SampType: **MSD** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/5/2019** SeqNo: **1094723**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	1,620	20.0	2,504	0	64.6	70	130	1,780	9.50	30	S
Aliphatic Hydrocarbon (C12-C16)	2,200	20.0	2,504	0	88.0	70	130	2,357	6.74	30	
Aliphatic Hydrocarbon (C16-C21)	2,090	20.0	2,504	0	83.5	70	130	2,368	12.5	30	
Aliphatic Hydrocarbon (C21-C34)	2,020	20.0	2,504	0	80.7	70	130	2,251	10.8	30	
Aliphatic Hydrocarbon (C8-C10)	1,530	40.1	5,007	0	30.6	70	130	1,582	3.16	30	S
Surr: 1-Chlorooctadecane	1,260		2,003		62.8	60	140		0		

NOTES:
S - Outlying spike recovery observed (low bias).

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **MB-26341** SampType: **MBLK** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **MBLKW** Batch ID: **26341** Analysis Date: **11/6/2019** SeqNo: **1094964**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C10-C12)	ND	19.9		0	0						
Aromatic Hydrocarbon (C12-C16)	ND	19.9		0	0						
Aromatic Hydrocarbon (C16-C21)	ND	19.9		0	0						
Aromatic Hydrocarbon (C21-C34)	ND	19.9		0	0						*
Aromatic Hydrocarbon (C8-C10)	ND	19.9		0	0						
Surr: o-Terphenyl	1,630		1,993		81.9	60	140				

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **LCS-26341** SampType: **LCS** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **LCSW** Batch ID: **26341** Analysis Date: **11/6/2019** SeqNo: **1094963**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C10-C12)	1,770	19.9	2,487	0	71.0	70	130				
Aromatic Hydrocarbon (C12-C16)	2,070	19.9	2,487	0	83.0	70	130				
Aromatic Hydrocarbon (C16-C21)	2,370	19.9	2,487	0	95.3	70	130				
Aromatic Hydrocarbon (C21-C34)	2,150	19.9	2,487	0	86.6	70	130				
Aromatic Hydrocarbon (C8-C10)	2,020	19.9	4,975	0	40.5	70	130				S
Surr: o-Terphenyl	1,690		1,990		85.1	60	140				

NOTES:
S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: **1910514-001BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/6/2019** SeqNo: **1094962**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0			0		25	
Aromatic Hydrocarbon (C12-C16)	ND	20.0		0	0			0		25	
Aromatic Hydrocarbon (C16-C21)	ND	20.0		0	0			0		25	
Aromatic Hydrocarbon (C21-C34)	ND	20.0		0	0			0		25	*
Aromatic Hydrocarbon (C8-C10)	ND	20.0		0	0			0		25	
Surr: o-Terphenyl	1,740		2,001		86.8	60	140		0		

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: **1910514-001BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/6/2019** SeqNo: **1094962**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
* - Flagged value is not within established control limits.

Sample ID: **1910514-002BMS** SampType: **MS** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/6/2019** SeqNo: **1094965**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C10-C12)	1,770	20.0	2,497	0	70.8	70	130				
Aromatic Hydrocarbon (C12-C16)	2,200	20.0	2,497	0	88.1	70	130				
Aromatic Hydrocarbon (C16-C21)	2,460	20.0	2,497	0	98.6	70	130				
Aromatic Hydrocarbon (C21-C34)	2,140	20.0	2,497	0	85.8	70	130				
Aromatic Hydrocarbon (C8-C10)	2,300	20.0	4,995	0	46.0	70	130				S
Surr: o-Terphenyl	1,890		1,998		94.4	60	140				

NOTES:
S - Outlying spike recovery observed (low bias).

Sample ID: **1910514-002BMSD** SampType: **MSD** Units: **µg/L** Prep Date: **10/31/2019** RunNo: **55104**
Client ID: **BATCH** Batch ID: **26341** Analysis Date: **11/6/2019** SeqNo: **1094966**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C10-C12)	1,500	20.0	2,504	0	60.1	70	130	1,768	16.1	30	S
Aromatic Hydrocarbon (C12-C16)	1,940	20.0	2,504	0	77.7	70	130	2,201	12.4	30	
Aromatic Hydrocarbon (C16-C21)	2,240	20.0	2,504	0	89.4	70	130	2,463	9.51	30	
Aromatic Hydrocarbon (C21-C34)	1,930	20.0	2,504	0	77.2	70	130	2,142	10.2	30	
Aromatic Hydrocarbon (C8-C10)	2,010	20.0	5,007	0	40.1	70	130	2,300	13.6	30	S
Surr: o-Terphenyl	1,690		2,003		84.3	60	140		0		

NOTES:
S - Outlying spike recovery observed (low bias).

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **LCS-26325**	SampType: **LCS**	Units: **µg/L**	Prep Date: **10/30/2019**	RunNo: **54982**
Client ID: **LCSW**	Batch ID: **26325**		Analysis Date: **10/30/2019**	SeqNo: **1091804**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	690	40.0	600.0	0	115	70	130				
Aliphatic Hydrocarbon (C6-C8)	205	20.0	200.0	0	102	70	130				
Aliphatic Hydrocarbon (C8-C10)	216	20.0	200.0	0	108	70	130				
Aliphatic Hydrocarbon (C10-C12)	207	20.0	200.0	0	103	70	130				
Aromatic Hydrocarbon (C8-C10)	909	50.0	800.0	0	114	70	130				
Aromatic Hydrocarbon (C10-C12)	231	20.0	200.0	0	115	70	130				
Aromatic Hydrocarbon (C12-C13)	200	20.0	200.0	0	100	70	130				
Benzene	221	20.0	200.0	0	111	70	130				
Toluene	223	20.0	200.0	0	111	70	130				
Ethylbenzene	224	20.0	200.0	0	112	70	130				
m,p-Xylene	454	40.0	400.0	0	113	70	130				
o-Xylene	224	20.0	200.0	0	112	70	130				
Naphthalene	224	20.0	200.0	0	112	70	130				
Methyl tert-butyl ether (MTBE)	188	20.0	200.0	0	93.9	70	130				
Surr: 1,4-Difluorobenzene	50.7		50.00		101	65	140				
Surr: Bromofluorobenzene	52.9		50.00		106	65	140				

Sample ID: **LCSD-26325**	SampType: **LCSD**	Units: **µg/L**	Prep Date: **10/30/2019**	RunNo: **54982**
Client ID: **LCSW02**	Batch ID: **26325**		Analysis Date: **10/30/2019**	SeqNo: **1091805**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	620	40.0	600.0	0	103	70	130	689.7	10.6	20	
Aliphatic Hydrocarbon (C6-C8)	201	20.0	200.0	0	101	70	130	204.6	1.74	20	
Aliphatic Hydrocarbon (C8-C10)	213	20.0	200.0	0	107	70	130	216.4	1.40	20	
Aliphatic Hydrocarbon (C10-C12)	211	20.0	200.0	0	105	70	130	207.0	1.90	20	
Aromatic Hydrocarbon (C8-C10)	849	50.0	800.0	0	106	70	130	908.7	6.78	20	
Aromatic Hydrocarbon (C10-C12)	218	20.0	200.0	0	109	70	130	230.9	5.53	20	
Aromatic Hydrocarbon (C12-C13)	203	20.0	200.0	0	102	70	130	200.1	1.59	20	
Benzene	206	20.0	200.0	0	103	70	130	221.0	7.09	20	
Toluene	207	20.0	200.0	0	104	70	130	222.9	7.16	20	

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **LCSD-26325** SampType: **LCSD** Units: **µg/L** Prep Date: **10/30/2019** RunNo: **54982**
Client ID: **LCSW02** Batch ID: **26325** Analysis Date: **10/30/2019** SeqNo: **1091805**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	207	20.0	200.0	0	104	70	130	224.2	7.75	20	
m,p-Xylene	421	40.0	400.0	0	105	70	130	454.0	7.49	20	
o-Xylene	208	20.0	200.0	0	104	70	130	223.9	7.13	20	
Naphthalene	217	20.0	200.0	0	108	70	130	223.5	2.98	20	
Methyl tert-butyl ether (MTBE)	219	20.0	200.0	0	110	70	130	187.8	15.4	20	
Surr: 1,4-Difluorobenzene	49.7		50.00		99.4	65	140		0		
Surr: Bromofluorobenzene	51.8		50.00		104	65	140		0		

Sample ID: **MB-26325** SampType: **MBLK** Units: **µg/L** Prep Date: **10/30/2019** RunNo: **54982**
Client ID: **MBLKW** Batch ID: **26325** Analysis Date: **10/30/2019** SeqNo: **1091806**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	40.0		0	0						
Aliphatic Hydrocarbon (C6-C8)	ND	20.0		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	20.0		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	50.0		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	20.0		0	0						
Benzene	ND	20.0		0	0						
Toluene	ND	20.0		0	0						
Ethylbenzene	ND	20.0		0	0						
m,p-Xylene	ND	40.0		0	0						
o-Xylene	ND	20.0		0	0						
Naphthalene	ND	20.0		0	0						
Methyl tert-butyl ether (MTBE)	ND	20.0		0	0						Q
Surr: 1,4-Difluorobenzene	45.6		50.00		91.3	65	140				
Surr: Bromofluorobenzene	50.0		50.00		99.9	65	140				

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Work Order: 1910458
CLIENT: Apex Laboratories
Project: A9J0847

QC SUMMARY REPORT

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: **1910458-002BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **10/30/2019** RunNo: **54982**
Client ID: **MW5** Batch ID: **26325** Analysis Date: **10/30/2019** SeqNo: **1091796**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	40.0		0	0			0		25	
Aliphatic Hydrocarbon (C6-C8)	ND	20.0		0	0			0		25	
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		0	0			0		25	
Aliphatic Hydrocarbon (C10-C12)	ND	20.0		0	0			0		25	
Aromatic Hydrocarbon (C8-C10)	ND	50.0		0	0			0		25	
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0			0		25	
Aromatic Hydrocarbon (C12-C13)	ND	20.0		0	0			0		25	
Benzene	ND	20.0		0	0			0		25	
Toluene	ND	20.0		0	0			0		25	
Ethylbenzene	ND	20.0		0	0			0		25	
m,p-Xylene	ND	40.0		0	0			0		25	
o-Xylene	ND	20.0		0	0			0		25	
Naphthalene	ND	20.0		0	0			0		25	
Methyl tert-butyl ether (MTBE)	ND	20.0		0	0			0		25	Q
Surr: 1,4-Difluorobenzene	49.7		50.00		99.5	65	140		0		
Surr: Bromofluorobenzene	52.9		50.00		106	65	140		0		

NOTES:
Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample Log-In Check List

Client Name:	APEX	Work Order Number:	1910458
Logged by:	Carissa True	Date Received:	10/25/2019 9:29:00 AM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	UPS		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☑	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler 1	2.8
Sample 1	3.7
Temp Blank 1	2.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT ORDER

Apex Laboratories

A9J0847

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Kevin J. Friscia

RECEIVING LABORATORY:

Fremont Analytical
3600 Fremont Avenue N.
Seattle, WA 98103
Phone :(206) 352-3790
Fax: (206) 352-7178

1910458

Sample Name: MW4 **Water** **Sampled: 10/22/19 06:55** (A9J0847-04)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	11/01/19 17:00	11/05/19 06:55	
NWTPH-VPH (Sub)	11/01/19 17:00	11/05/19 06:55	

Containers Supplied:
(D)40 mL VOA - HCL
(E)40 mL VOA - HCL
(F)40 mL VOA - HCL
(G)1 L Amber Glass - HCL

Sample Name: MW5 **Water** **Sampled: 10/22/19 06:45** (A9J0847-05)

Analysis	Due	Expires	Comments
NWTPH-EPH (Sub)	11/01/19 17:00	11/05/19 06:45	
NWTPH-VPH (Sub)	11/01/19 17:00	11/05/19 06:45	

Containers Supplied:
(D)40 mL VOA - HCL
(E)40 mL VOA - HCL
(F)40 mL VOA - HCL
(G)1 L Amber Glass - HCL

Std TAT

Released By	Date	Received By	Date
	10/24/19	UPS (Shipper)	
UPS (Shipper)			
Released By	Date	Received By	Date
			10/25/19 @ 0929

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Friday, February 14, 2020

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: A0B0057 - Arcoa Building - OR190501-3

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0B0057, which was received by the laboratory on 2/4/2020 at 10:29:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample reciept, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	0.8	degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	A0B0057-01	Water	02/04/20 08:10	02/04/20 10:29
MW2	A0B0057-02	Water	02/04/20 08:15	02/04/20 10:29
MW3	A0B0057-03	Water	02/04/20 09:01	02/04/20 10:29
MW4	A0B0057-04	Water	02/04/20 07:11	02/04/20 10:29
MW5	A0B0057-05	Water	02/04/20 07:04	02/04/20 10:29

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0B0057-01)				**Matrix: Water**		**Batch: 0020148**		
Diesel	ND	---	0.0748	mg/L	1	02/06/20 04:00	NWTPH-Dx	
Oil	ND	---	0.150	mg/L	1	02/06/20 04:00	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 87 %*		*Limits: 50-150 %*	*1*	*02/06/20 04:00*	*NWTPH-Dx*	
MW2 (A0B0057-02)				**Matrix: Water**		**Batch: 0020148**		
Diesel	ND	---	0.0800	mg/L	1	02/06/20 04:20	NWTPH-Dx	
Oil	ND	---	0.160	mg/L	1	02/06/20 04:20	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 90 %*		*Limits: 50-150 %*	*1*	*02/06/20 04:20*	*NWTPH-Dx*	
MW3 (A0B0057-03)				**Matrix: Water**		**Batch: 0020148**		
Diesel	ND	---	0.0748	mg/L	1	02/06/20 04:40	NWTPH-Dx	
Oil	ND	---	0.150	mg/L	1	02/06/20 04:40	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 85 %*		*Limits: 50-150 %*	*1*	*02/06/20 04:40*	*NWTPH-Dx*	
MW4 (A0B0057-04)				**Matrix: Water**		**Batch: 0020148**		
Diesel	**0.125**	---	0.0748	mg/L	1	02/06/20 05:00	NWTPH-Dx	**F-11, F-20**
Oil	ND	---	0.150	mg/L	1	02/06/20 05:00	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 82 %*		*Limits: 50-150 %*	*1*	*02/06/20 05:00*	*NWTPH-Dx*	
MW5 (A0B0057-05)				**Matrix: Water**		**Batch: 0020148**		
Diesel	ND	---	0.0825	mg/L	1	02/06/20 05:20	NWTPH-Dx	
Oil	ND	---	0.165	mg/L	1	02/06/20 05:20	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 84 %*		*Limits: 50-150 %*	*1*	*02/06/20 05:20*	*NWTPH-Dx*	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0B0057-01)				**Matrix: Water**		**Batch: 0020135**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/05/20 16:53	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*94 %*	*Limits: 50-150 %*	*1*	*02/05/20 16:53*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*97 %*	*50-150 %*	*1*	*02/05/20 16:53*	*NWTPH-Gx (MS)*	
MW2 (A0B0057-02)				**Matrix: Water**		**Batch: 0020135**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/05/20 17:20	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*98 %*	*Limits: 50-150 %*	*1*	*02/05/20 17:20*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*97 %*	*50-150 %*	*1*	*02/05/20 17:20*	*NWTPH-Gx (MS)*	
MW3 (A0B0057-03)				**Matrix: Water**		**Batch: 0020135**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/05/20 17:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*98 %*	*Limits: 50-150 %*	*1*	*02/05/20 17:47*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*	*1*	*02/05/20 17:47*	*NWTPH-Gx (MS)*	
MW4 (A0B0057-04)				**Matrix: Water**		**Batch: 0020135**		
Gasoline Range Organics	**1.10**	---	0.100	mg/L	1	02/05/20 18:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*134 %*	*Limits: 50-150 %*	*1*	*02/05/20 18:14*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*	*1*	*02/05/20 18:14*	*NWTPH-Gx (MS)*	
MW5 (A0B0057-05)				**Matrix: Water**		**Batch: 0020135**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/05/20 18:41	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*95 %*	*Limits: 50-150 %*	*1*	*02/05/20 18:41*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*98 %*	*50-150 %*	*1*	*02/05/20 18:41*	*NWTPH-Gx (MS)*	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0B0057-01)				**Matrix: Water**		**Batch: 0020135**		
Acetone	ND	---	20.0	ug/L	1	02/05/20 16:53	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	02/05/20 16:53	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	02/05/20 16:53	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	02/05/20 16:53	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	02/05/20 16:53	EPA 8260C	
Carbon tetrachloride	ND	---	2.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	02/05/20 16:53	EPA 8260C	EST
Chloroform	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	02/05/20 16:53	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0B0057-01)				**Matrix: Water**		**Batch: 0020135**		
Ethylbenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/05/20 16:53	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	02/05/20 16:53	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	02/05/20 16:53	EPA 8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	02/05/20 16:53	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	02/05/20 16:53	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	02/05/20 16:53	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	02/05/20 16:53	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	02/05/20 16:53	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*02/05/20 16:53*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*		*80-120 %*	*1*	*02/05/20 16:53*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*	*1*	*02/05/20 16:53*	*EPA 8260C*	
MW2 (A0B0057-02)				**Matrix: Water**		**Batch: 0020135**		
Acetone	ND	---	20.0	ug/L	1	02/05/20 17:20	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	02/05/20 17:20	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A0B0057-02)				**Matrix: Water**		**Batch: 0020135**		
Bromoform	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	02/05/20 17:20	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	02/05/20 17:20	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	02/05/20 17:20	EPA 8260C	
Carbon tetrachloride	ND	---	2.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	02/05/20 17:20	EPA 8260C	EST
Chloroform	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	02/05/20 17:20	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/05/20 17:20	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	02/05/20 17:20	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	02/05/20 17:20	EPA 8260C	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A0B0057-02)				**Matrix: Water**		**Batch: 0020135**		
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	02/05/20 17:20	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	02/05/20 17:20	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	02/05/20 17:20	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	02/05/20 17:20	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	02/05/20 17:20	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits:*	*80-120 %*	*1*	*02/05/20 17:20*	*EPA 8260C*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*02/05/20 17:20*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*	*1*	*02/05/20 17:20*	*EPA 8260C*	
MW3 (A0B0057-03)				**Matrix: Water**		**Batch: 0020135**		
Acetone	ND	---	20.0	ug/L	1	02/05/20 17:47	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	02/05/20 17:47	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	02/05/20 17:47	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	02/05/20 17:47	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A0B0057-03)				**Matrix: Water**		**Batch: 0020135**		
Carbon disulfide	ND	---	10.0	ug/L	1	02/05/20 17:47	EPA 8260C	
Carbon tetrachloride	ND	---	2.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	02/05/20 17:47	EPA 8260C	EST
Chloroform	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	02/05/20 17:47	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/05/20 17:47	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	02/05/20 17:47	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	02/05/20 17:47	EPA 8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	02/05/20 17:47	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	02/05/20 17:47	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A0B0057-03)				**Matrix: Water**		**Batch: 0020135**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
Vinyl chloride	ND	---	0.400	ug/L	1	02/05/20 17:47	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	02/05/20 17:47	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	02/05/20 17:47	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*02/05/20 17:47*	*EPA 8260C*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*02/05/20 17:47*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*02/05/20 17:47*	*EPA 8260C*	
MW4 (A0B0057-04)				**Matrix: Water**		**Batch: 0020135**		
Acetone	ND	---	20.0	ug/L	1	02/05/20 18:14	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Benzene	**0.215**	---	0.200	ug/L	1	02/05/20 18:14	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	02/05/20 18:14	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	02/05/20 18:14	EPA 8260C	
n-Butylbenzene	**2.87**	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
sec-Butylbenzene	**13.3**	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
tert-Butylbenzene	**1.17**	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	02/05/20 18:14	EPA 8260C	
Carbon tetrachloride	ND	---	2.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	02/05/20 18:14	EPA 8260C	EST
Chloroform	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	02/05/20 18:14	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A0B0057-04)				**Matrix: Water**		**Batch: 0020135**		
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
cis-1,2-Dichloroethene	**0.747**	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Ethylbenzene	**1.32**	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/05/20 18:14	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	02/05/20 18:14	EPA 8260C	
Isopropylbenzene	**7.07**	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	02/05/20 18:14	EPA 8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	02/05/20 18:14	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	02/05/20 18:14	EPA 8260C	
n-Propylbenzene	**9.99**	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A0B0057-04)				**Matrix: Water**		**Batch: 0020135**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,2,4-Trimethylbenzene	**16.0**	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
1,3,5-Trimethylbenzene	**2.24**	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
Vinyl chloride	**0.614**	---	0.400	ug/L	1	02/05/20 18:14	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	02/05/20 18:14	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	02/05/20 18:14	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*	*1*	*02/05/20 18:14*	*EPA 8260C*	
Toluene-d8 (Surr)			*101 %*		*80-120 %*	*1*	*02/05/20 18:14*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*	*1*	*02/05/20 18:14*	*EPA 8260C*	
MW5 (A0B0057-05)				**Matrix: Water**		**Batch: 0020135**		
Acetone	ND	---	20.0	ug/L	1	02/05/20 18:41	EPA 8260C	
Acrylonitrile	ND	---	2.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Benzene	ND	---	0.200	ug/L	1	02/05/20 18:41	EPA 8260C	
Bromobenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Bromochloromethane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Bromodichloromethane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Bromoform	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Bromomethane	ND	---	5.00	ug/L	1	02/05/20 18:41	EPA 8260C	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	02/05/20 18:41	EPA 8260C	
n-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
sec-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
tert-Butylbenzene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Carbon disulfide	ND	---	10.0	ug/L	1	02/05/20 18:41	EPA 8260C	
Carbon tetrachloride	ND	---	2.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Chlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Chloroethane	ND	---	5.00	ug/L	1	02/05/20 18:41	EPA 8260C	EST
Chloroform	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Chloromethane	ND	---	5.00	ug/L	1	02/05/20 18:41	EPA 8260C	
2-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
4-Chlorotoluene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Dibromochloromethane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Dibromomethane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A0B0057-05)				**Matrix: Water**		**Batch: 0020135**		
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	02/05/20 18:41	EPA 8260C	
2-Hexanone	ND	---	10.0	ug/L	1	02/05/20 18:41	EPA 8260C	
Isopropylbenzene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Methylene chloride	ND	---	10.0	ug/L	1	02/05/20 18:41	EPA 8260C	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	02/05/20 18:41	EPA 8260C	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
Naphthalene	ND	---	2.00	ug/L	1	02/05/20 18:41	EPA 8260C	
n-Propylbenzene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Styrene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Tetrachloroethene (PCE)	**0.503**	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A0B0057-05)				**Matrix: Water**		**Batch: 0020135**		
Vinyl chloride	ND	---	0.400	ug/L	1	02/05/20 18:41	EPA 8260C	
m,p-Xylene	ND	---	1.00	ug/L	1	02/05/20 18:41	EPA 8260C	
o-Xylene	ND	---	0.500	ug/L	1	02/05/20 18:41	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*101 %*	*Limits: 80-120 %*	*1*	*02/05/20 18:41*	*EPA 8260C*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*02/05/20 18:41*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*02/05/20 18:41*	*EPA 8260C*	

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Kevin J. Friscia, Project Manager

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020148 - EPA 3510C (Fuels/Acid Ext.)												**Water**
Blank (0020148-BLK1)		Prepared: 02/05/20 12:51		Analyzed: 02/06/20 02:41								
NWTPH-Dx												
Diesel	ND	---	0.0727	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.145	mg/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 91 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (0020148-BS1)		Prepared: 02/05/20 12:51		Analyzed: 02/06/20 03:01								
NWTPH-Dx												
Diesel	0.431	---	0.0800	mg/L	1	0.500	---	86	58 - 115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS Dup (0020148-BSD1)		Prepared: 02/05/20 12:51		Analyzed: 02/06/20 03:20								**Q-19**
NWTPH-Dx												
Diesel	0.437	---	0.0800	mg/L	1	0.500	---	87	58 - 115%	1	20%	
Surr: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*			*Dilution: 1x*					

Apex Laboratories

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020135 - EPA 5030B									Water			
Blank (0020135-BLK1)		Prepared: 02/05/20 12:00		Analyzed: 02/05/20 13:44								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 99 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*98 %*		*50-150 %*			*"*				
LCS (0020135-BS2)		Prepared: 02/05/20 12:00		Analyzed: 02/05/20 13:17								
NWTPH-Gx (MS)												
Gasoline Range Organics	0.445	---	0.100	mg/L	1	0.500	---	89	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*99 %*		*50-150 %*			*"*				

Apex Laboratories

Kevin J. Friscia, Project Manager

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020135 - EPA 5030B							**Water**					
Blank (0020135-BLK1)		Prepared: 02/05/20 12:00		Analyzed: 02/05/20 13:44								
EPA 8260C												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	EST
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020135 - EPA 5030B							Water					
Blank (0020135-BLK1)		Prepared: 02/05/20 12:00		Analyzed: 02/05/20 13:44								
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*				

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Kevin J. Friscia, Project Manager

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020135 - EPA 5030B									Water			
Blank (0020135-BLK1)			Prepared: 02/05/20 12:00 Analyzed: 02/05/20 13:44									
Surr: Toluene-d8 (Surr)			*Recovery: 103 %*	*Limits: 80-120 %*				*Dilution: 1x*				
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*				*"*				
LCS (0020135-BS1)			Prepared: 02/05/20 12:00 Analyzed: 02/05/20 12:50									
EPA 8260C												
Acetone	38.7	---	20.0	ug/L	1	40.0	---	97	80 - 120%	---	---	
Acrylonitrile	21.0	---	2.00	ug/L	1	20.0	---	105	80 - 120%	---	---	
Benzene	20.5	---	0.200	ug/L	1	20.0	---	103	80 - 120%	---	---	
Bromobenzene	19.1	---	0.500	ug/L	1	20.0	---	96	80 - 120%	---	---	
Bromochloromethane	22.5	---	1.00	ug/L	1	20.0	---	113	80 - 120%	---	---	
Bromodichloromethane	19.7	---	1.00	ug/L	1	20.0	---	99	80 - 120%	---	---	
Bromoform	17.4	---	1.00	ug/L	1	20.0	---	87	80 - 120%	---	---	
Bromomethane	24.1	---	5.00	ug/L	1	20.0	---	**121**	**80 - 120%**	---	---	Q-56
2-Butanone (MEK)	40.0	---	10.0	ug/L	1	40.0	---	100	80 - 120%	---	---	
n-Butylbenzene	20.1	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
sec-Butylbenzene	19.2	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
tert-Butylbenzene	17.8	---	1.00	ug/L	1	20.0	---	89	80 - 120%	---	---	
Carbon disulfide	17.9	---	10.0	ug/L	1	20.0	---	90	80 - 120%	---	---	
Carbon tetrachloride	17.6	---	2.00	ug/L	1	20.0	---	88	80 - 120%	---	---	
Chlorobenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Chloroethane	26.2	---	5.00	ug/L	1	20.0	---	**131**	**80 - 120%**	---	---	Q-56, EST
Chloroform	21.4	---	1.00	ug/L	1	20.0	---	107	80 - 120%	---	---	
Chloromethane	20.7	---	5.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
2-Chlorotoluene	18.8	---	1.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
4-Chlorotoluene	17.9	---	1.00	ug/L	1	20.0	---	89	80 - 120%	---	---	
Dibromochloromethane	18.2	---	1.00	ug/L	1	20.0	---	91	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	15.3	---	5.00	ug/L	1	20.0	---	**77**	**80 - 120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	20.6	---	0.500	ug/L	1	20.0	---	103	80 - 120%	---	---	
Dibromomethane	20.6	---	1.00	ug/L	1	20.0	---	103	80 - 120%	---	---	
1,2-Dichlorobenzene	19.4	---	0.500	ug/L	1	20.0	---	97	80 - 120%	---	---	
1,3-Dichlorobenzene	19.5	---	0.500	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,4-Dichlorobenzene	18.7	---	0.500	ug/L	1	20.0	---	94	80 - 120%	---	---	
Dichlorodifluoromethane	19.5	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,1-Dichloroethane	20.7	---	0.400	ug/L	1	20.0	---	103	80 - 120%	---	---	

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020135 - EPA 5030B							**Water**					
LCS (0020135-BS1)		Prepared: 02/05/20 12:00		Analyzed: 02/05/20 12:50								
1,2-Dichloroethane (EDC)	21.3	---	0.400	ug/L	1	20.0	---	107	80 - 120%	---	---	
1,1-Dichloroethene	19.9	---	0.400	ug/L	1	20.0	---	99	80 - 120%	---	---	
cis-1,2-Dichloroethene	21.1	---	0.400	ug/L	1	20.0	---	106	80 - 120%	---	---	
trans-1,2-Dichloroethene	20.3	---	0.400	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,2-Dichloropropane	20.4	---	0.500	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,3-Dichloropropane	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
2,2-Dichloropropane	20.6	---	1.00	ug/L	1	20.0	---	103	80 - 120%	---	---	
1,1-Dichloropropene	19.9	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
cis-1,3-Dichloropropene	19.2	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
trans-1,3-Dichloropropene	19.1	---	1.00	ug/L	1	20.0	---	95	80 - 120%	---	---	
Ethylbenzene	20.3	---	0.500	ug/L	1	20.0	---	101	80 - 120%	---	---	
Hexachlorobutadiene	18.9	---	5.00	ug/L	1	20.0	---	95	80 - 120%	---	---	
2-Hexanone	38.5	---	10.0	ug/L	1	40.0	---	96	80 - 120%	---	---	
Isopropylbenzene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
4-Isopropyltoluene	20.0	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
Methylene chloride	19.5	---	10.0	ug/L	1	20.0	---	97	80 - 120%	---	---	
4-Methyl-2-pentanone (MiBK)	38.4	---	10.0	ug/L	1	40.0	---	96	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	19.1	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
Naphthalene	19.5	---	2.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
n-Propylbenzene	18.2	---	0.500	ug/L	1	20.0	---	91	80 - 120%	---	---	
Styrene	21.2	---	1.00	ug/L	1	20.0	---	106	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	20.3	---	0.400	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	20.6	---	0.500	ug/L	1	20.0	---	103	80 - 120%	---	---	
Tetrachloroethene (PCE)	19.9	---	0.400	ug/L	1	20.0	---	99	80 - 120%	---	---	
Toluene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
1,2,3-Trichlorobenzene	20.2	---	2.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
1,2,4-Trichlorobenzene	18.7	---	2.00	ug/L	1	20.0	---	94	80 - 120%	---	---	
1,1,1-Trichloroethane	20.8	---	0.400	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,1,2-Trichloroethane	20.0	---	0.500	ug/L	1	20.0	---	100	80 - 120%	---	---	
Trichloroethene (TCE)	20.3	---	0.400	ug/L	1	20.0	---	102	80 - 120%	---	---	
Trichlorofluoromethane	27.6	---	2.00	ug/L	1	20.0	---	**138**	**80 - 120%**	---	---	Q-56
1,2,3-Trichloropropane	20.1	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
1,2,4-Trimethylbenzene	19.7	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,3,5-Trimethylbenzene	19.2	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0020135 - EPA 5030B												**Water**
LCS (0020135-BS1)		Prepared: 02/05/20 12:00		Analyzed: 02/05/20 12:50								
Vinyl chloride	22.0	---	0.400	ug/L	1	20.0	---	110	80 - 120%	---	---	
m,p-Xylene	40.7	---	1.00	ug/L	1	40.0	---	102	80 - 120%	---	---	
o-Xylene	20.2	---	0.500	ug/L	1	20.0	---	101	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*98 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*91 %*		*80-120 %*			*"*					

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0020148							
A0B0057-01	Water	NWTPH-Dx	02/04/20 08:10	02/05/20 12:51	1070mL/2mL	1000mL/2mL	0.94
A0B0057-02	Water	NWTPH-Dx	02/04/20 08:15	02/05/20 12:51	1000mL/2mL	1000mL/2mL	1.00
A0B0057-03	Water	NWTPH-Dx	02/04/20 09:01	02/05/20 12:51	1070mL/2mL	1000mL/2mL	0.94
A0B0057-04	Water	NWTPH-Dx	02/04/20 07:11	02/05/20 12:51	1070mL/2mL	1000mL/2mL	0.94
A0B0057-05	Water	NWTPH-Dx	02/04/20 07:04	02/05/20 12:51	970mL/2mL	1000mL/2mL	1.03

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0020135							
A0B0057-01	Water	NWTPH-Gx (MS)	02/04/20 08:10	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-02	Water	NWTPH-Gx (MS)	02/04/20 08:15	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-03	Water	NWTPH-Gx (MS)	02/04/20 09:01	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-04	Water	NWTPH-Gx (MS)	02/04/20 07:11	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-05	Water	NWTPH-Gx (MS)	02/04/20 07:04	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0020135							
A0B0057-01	Water	EPA 8260C	02/04/20 08:10	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-02	Water	EPA 8260C	02/04/20 08:15	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-03	Water	EPA 8260C	02/04/20 09:01	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-04	Water	EPA 8260C	02/04/20 07:11	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00
A0B0057-05	Water	EPA 8260C	02/04/20 07:04	02/05/20 13:09	5mL/5mL	5mL/5mL	1.00

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Kevin J. Friscia, Project Manager

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

EST	Result reported as an Estimated Value. Results estimated. Initial Calibration Verification Standard (ICV) failed low.
F-11	The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
F-20	Result for Diesel is Estimated due to overlap from Gasoline Range Organics or other VOCs.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260C, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Kevin J. Friscia, Project Manager

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Kevin J. Friscia, Project Manager

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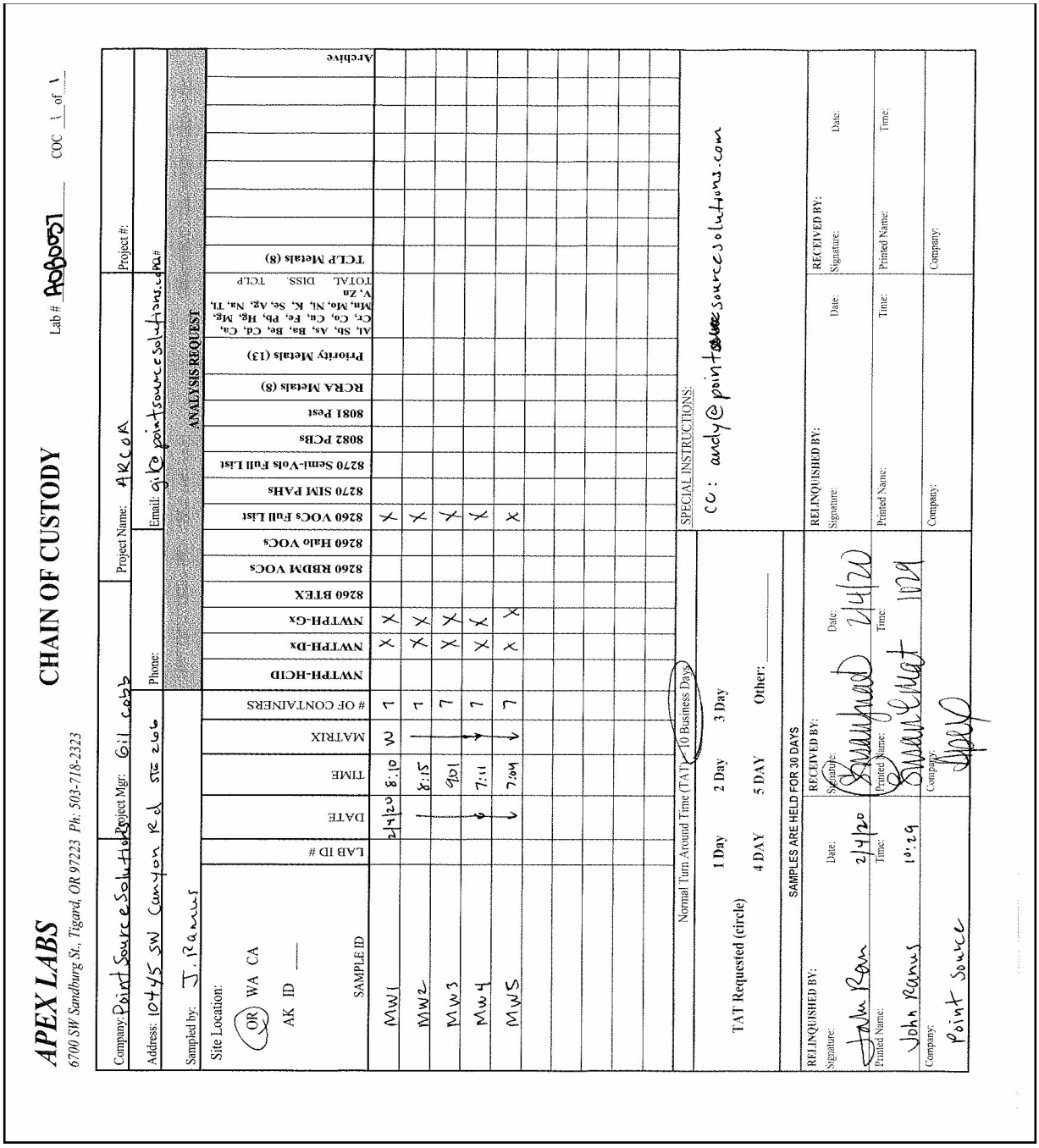

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A0B0057 COC 1 of 1

Company: Point Source Solutions Project Mgr: Gil Cobb Project Name: ARCOA Project #:
Address: 10445 SW Canyon Rd, Ste 205 Phone: Email: gil@pointsourcesolutions.com PO#
Sampled by: J. Ramus

Site Location: (OR) WA CA AK ID ___

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
MW1		2/4/20	8:10	W	7		X	X				X								
MW2			8:15		7		X	X				X								
MW3			9:01		7		X	X				X								
MW4			7:11		7		X	X				X								
MW5			7:09		7		X	X				X								

Normal Turn Around Time (TAT) 10 Business Days

TAT Requested (circle)
1 Day 2 Day 3 Day
4 DAY 5 DAY Other: ____

SPECIAL INSTRUCTIONS:
cc: andy@pointsourcesolutions.com

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: John Ramus	Signature: Brandy Hart	Signature:	Signature:
Date: 2/4/20	Date: 2/4/20	Date:	Date:
Time: 10:29	Time: 1129	Time:	Time:
Printed Name: John Ramus	Printed Name: Brandy Hart	Printed Name:	Printed Name:
Company: Point Source	Company: APEX	Company:	Company:

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0B0057 - 02 14 20 1606**

APEX LABS COOLER RECEIPT FORM

Client: Point Source Solutions Element WO#: A0B0057

Project/Project #: ARCOA

Delivery Info:

Date/time received: 2/4/20 @ 1029 By: SC

Delivered by: Apex____Client X ESS____FedEx____UPS____Swift___Senvoy ___SDS___Other_____

Cooler Inspection Date/time inspected: 2/4/20 @ 1029 By: SC

Chain of Custody included? Yes X No ___ Custody seals? Yes_____ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	0.8						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	NA Y (SC) 2/4/20						
Ice type: (Gel/Real/Other)	real						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 2-4-20 @ 12:35 By: TMc

All samples intact? Yes No ___ Comments:

Bottle labels/COCs agree? Yes ___ No X Comments: MW2 received 4 cont TMc 2-4-20 COC states 7, NO 1 on MW1, MW2, MW5 *See form

COC/container discrepancies form initiated? Yes* X No ___ NA ___

Containers/volumes received appropriate for analysis? Yes X No ~~X~~ TMc 2-4-20 Comments:

Do VOA vials have visible headspace? Yes ___ No ~~X~~ NA ___

Comments

Water samples: pH checked: Yes ~~X~~ No___NA___ pH appropriate? Yes ~~X~~ No___NA___

Comments:

Additional information:

Labeled by: TMc 2-4-20 Witness: XXX Cooler Inspected by: TMc See Project Contact Form: Y

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WO# A0B0057

COC/Container Discrepancies

COC Reads	Container Reads/Comments
MW1	NO TID on voas, NO T on Amber
MW2	NO T on voas, NO TID on amber
MW3	NO TID on voas,
MW4	NO TID on voas
MW5	NO T on voas, NO TID on amber

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Monday, June 1, 2020

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: A0E0368 - Arcoa Building - OR190501-3

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0E0368, which was received by the laboratory on 5/13/2020 at 10:45:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample reciept, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	5.4 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	A0E0368-01	Water	05/13/20 07:45	05/13/20 10:45
MW2	A0E0368-02	Water	05/13/20 07:34	05/13/20 10:45
MW3	A0E0368-03	Water	05/13/20 08:32	05/13/20 10:45
MW4	A0E0368-04	Water	05/13/20 06:32	05/13/20 10:45
MW4-DUP	A0E0368-05	Water	05/13/20 06:40	05/13/20 10:45
MW5	A0E0368-06	Water	05/13/20 06:49	05/13/20 10:45
Trip Blank	A0E0368-07	Water	05/13/20 08:50	05/13/20 10:45

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ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0E0368-01)				**Matrix: Water**		**Batch: 0050676**		
Diesel	ND	---	0.0755	mg/L	1	05/20/20 04:12	NWTPH-Dx LL	
Oil	ND	---	0.151	mg/L	1	05/20/20 04:12	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*	*1*	*05/20/20 04:12*	*NWTPH-Dx LL*	
MW2 (A0E0368-02)				**Matrix: Water**		**Batch: 0050676**		
Diesel	ND	---	0.0755	mg/L	1	05/20/20 04:34	NWTPH-Dx LL	
Oil	ND	---	0.151	mg/L	1	05/20/20 04:34	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*05/20/20 04:34*	*NWTPH-Dx LL*	
MW3 (A0E0368-03)				**Matrix: Water**		**Batch: 0050676**		
Diesel	ND	---	0.0748	mg/L	1	05/20/20 04:57	NWTPH-Dx LL	
Oil	ND	---	0.150	mg/L	1	05/20/20 04:57	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*	*1*	*05/20/20 04:57*	*NWTPH-Dx LL*	
MW4 (A0E0368-04)				**Matrix: Water**		**Batch: 0050590**		
Diesel	**0.115**	---	0.0769	mg/L	1	05/15/20 22:44	NWTPH-Dx LL	**A-01**
Oil	ND	---	0.154	mg/L	1	05/15/20 22:44	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 67 %*		*Limits: 50-150 %*	*1*	*05/15/20 22:44*	*NWTPH-Dx LL*	
MW4-DUP (A0E0368-05)				**Matrix: Water**		**Batch: 0050590**		
Diesel	**0.131**	---	0.0748	mg/L	1	05/15/20 23:07	NWTPH-Dx LL	**A-01**
Oil	**0.185**	---	0.150	mg/L	1	05/15/20 23:07	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 78 %*		*Limits: 50-150 %*	*1*	*05/15/20 23:07*	*NWTPH-Dx LL*	
MW5 (A0E0368-06)				**Matrix: Water**		**Batch: 0050590**		
Diesel	ND	---	0.0816	mg/L	1	05/15/20 23:30	NWTPH-Dx LL	
Oil	ND	---	0.163	mg/L	1	05/15/20 23:30	NWTPH-Dx LL	
Surrogate: o-Terphenyl (Surr)		*Recovery: 73 %*		*Limits: 50-150 %*	*1*	*05/15/20 23:30*	*NWTPH-Dx LL*	

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ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0E0368-01)				**Matrix: Water**		**Batch: 0050467**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	05/13/20 18:11	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 106 %*	*Limits: 50-150 %*		*1*	*05/13/20 18:11*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*111 %*	*50-150 %*	*1*	*05/13/20 18:11*	*NWTPH-Gx (MS)*	
MW2 (A0E0368-02)				**Matrix: Water**		**Batch: 0050467**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	05/13/20 18:39	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 106 %*	*Limits: 50-150 %*		*1*	*05/13/20 18:39*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*109 %*	*50-150 %*	*1*	*05/13/20 18:39*	*NWTPH-Gx (MS)*	
MW3 (A0E0368-03)				**Matrix: Water**		**Batch: 0050467**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	05/13/20 19:06	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 108 %*	*Limits: 50-150 %*		*1*	*05/13/20 19:06*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*110 %*	*50-150 %*	*1*	*05/13/20 19:06*	*NWTPH-Gx (MS)*	
MW4 (A0E0368-04)				**Matrix: Water**		**Batch: 0050467**		
Gasoline Range Organics	**0.739**	---	0.100	mg/L	1	05/13/20 19:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 118 %*	*Limits: 50-150 %*		*1*	*05/13/20 19:33*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*05/13/20 19:33*	*NWTPH-Gx (MS)*	
MW4-DUP (A0E0368-05)				**Matrix: Water**		**Batch: 0050467**		
Gasoline Range Organics	**0.566**	---	0.100	mg/L	1	05/13/20 20:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 118 %*	*Limits: 50-150 %*		*1*	*05/13/20 20:00*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*108 %*	*50-150 %*	*1*	*05/13/20 20:00*	*NWTPH-Gx (MS)*	
MW5 (A0E0368-06)				**Matrix: Water**		**Batch: 0050467**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	05/13/20 20:27	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 104 %*	*Limits: 50-150 %*		*1*	*05/13/20 20:27*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*109 %*	*50-150 %*	*1*	*05/13/20 20:27*	*NWTPH-Gx (MS)*	

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0E0368-01)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 18:11	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 18:11	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 18:11	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 18:11	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 18:11	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 18:11	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 18:11	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0E0368-01)				**Matrix: Water**		**Batch: 0050467**		
Ethylbenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 18:11	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 18:11	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 18:11	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 18:11	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 18:11	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Tetrachloroethene (PCE)	**0.470**	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	05/13/20 18:11	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 18:11	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 18:11	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*1*	*05/13/20 18:11*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*05/13/20 18:11*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*05/13/20 18:11*	*EPA 8260D*	
MW2 (A0E0368-02)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 18:39	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 18:39	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A0E0368-02)				**Matrix: Water**		**Batch: 0050467**		
Bromoform	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 18:39	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 18:39	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 18:39	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 18:39	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 18:39	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 18:39	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 18:39	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 18:39	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A0E0368-02)				**Matrix: Water**		**Batch: 0050467**		
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 18:39	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 18:39	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Tetrachloroethene (PCE)	**0.420**	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	05/13/20 18:39	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 18:39	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 18:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*05/13/20 18:39*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/13/20 18:39*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*05/13/20 18:39*	*EPA 8260D*	
MW3 (A0E0368-03)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 19:06	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 19:06	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 19:06	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 19:06	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	

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Kevin J. Friscia, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A0E0368-03)				**Matrix: Water**		**Batch: 0050467**		
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 19:06	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 19:06	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 19:06	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 19:06	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 19:06	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 19:06	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 19:06	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 19:06	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A0E0368-03)				**Matrix: Water**		**Batch: 0050467**		
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Tetrachloroethene (PCE)	**0.400**	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	05/13/20 19:06	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 19:06	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 19:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits: 80-120 %*	*1*	*05/13/20 19:06*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*05/13/20 19:06*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*05/13/20 19:06*	*EPA 8260D*	
MW4 (A0E0368-04)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 19:33	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 19:33	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 19:33	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 19:33	EPA 8260D	
n-Butylbenzene	**1.95**	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
sec-Butylbenzene	**11.7**	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
tert-Butylbenzene	**1.18**	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 19:33	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 19:33	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A0E0368-04)				**Matrix: Water**		**Batch: 0050467**		
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
cis-1,2-Dichloroethene	**0.470**	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 19:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Ethylbenzene	**0.850**	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 19:33	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 19:33	EPA 8260D	
Isopropylbenzene	**5.56**	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 19:33	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 19:33	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 19:33	EPA 8260D	
n-Propylbenzene	**8.49**	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A0E0368-04)				**Matrix: Water**		**Batch: 0050467**		
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,2,4-Trimethylbenzene	**12.2**	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
1,3,5-Trimethylbenzene	**1.51**	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
Vinyl chloride	**0.500**	---	0.400	ug/L	1	05/13/20 19:33	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 19:33	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 19:33	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*05/13/20 19:33*	*EPA 8260D*	
Toluene-d8 (Surr)			*94 %*		*80-120 %*	*1*	*05/13/20 19:33*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*		*80-120 %*	*1*	*05/13/20 19:33*	*EPA 8260D*	
MW4-DUP (A0E0368-05)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 20:00	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 20:00	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 20:00	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 20:00	EPA 8260D	
n-Butylbenzene	**1.45**	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
sec-Butylbenzene	**9.16**	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 20:00	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 20:00	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	

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Kevin J. Friscia, Project Manager

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-DUP (A0E0368-05)				**Matrix: Water**		**Batch: 0050467**		
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
cis-1,2-Dichloroethene	**0.480**	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 20:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Ethylbenzene	**0.780**	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 20:00	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 20:00	EPA 8260D	
Isopropylbenzene	**4.72**	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 20:00	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 20:00	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 20:00	EPA 8260D	
n-Propylbenzene	**7.06**	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,2,4-Trimethylbenzene	**9.99**	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
1,3,5-Trimethylbenzene	**1.26**	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4-DUP (A0E0368-05)				**Matrix: Water**		**Batch: 0050467**		
Vinyl chloride	**0.540**	---	0.400	ug/L	1	05/13/20 20:00	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 20:00	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 20:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery: 108 %*		*Limits: 80-120 %*	*1*	*05/13/20 20:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*94 %*	*80-120 %*	*1*	*05/13/20 20:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*	*1*	*05/13/20 20:00*	*EPA 8260D*	
MW5 (A0E0368-06)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 20:27	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 20:27	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 20:27	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 20:27	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 20:27	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Chloroform	**2.79**	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 20:27	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A0E0368-06)				**Matrix: Water**		**Batch: 0050467**		
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 20:27	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 20:27	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 20:27	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 20:27	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 20:27	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 20:27	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Tetrachloroethene (PCE)	**0.560**	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	05/13/20 20:27	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 20:27	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 20:27	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*05/13/20 20:27*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*05/13/20 20:27*	*EPA 8260D*	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A0E0368-06)				**Matrix: Water**		**Batch: 0050467**		
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 101 %*	*Limits: 80-120 %*		*1*	*05/13/20 20:27*	*EPA 8260D*	
Trip Blank (A0E0368-07)				**Matrix: Water**		**Batch: 0050467**		
Acetone	ND	---	20.0	ug/L	1	05/13/20 17:44	EPA 8260D	
Acrylonitrile	ND	---	2.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Benzene	ND	---	0.200	ug/L	1	05/13/20 17:44	EPA 8260D	
Bromobenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Bromochloromethane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Bromodichloromethane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Bromoform	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Bromomethane	ND	---	5.00	ug/L	1	05/13/20 17:44	EPA 8260D	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	05/13/20 17:44	EPA 8260D	
n-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
sec-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
tert-Butylbenzene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Carbon disulfide	ND	---	10.0	ug/L	1	05/13/20 17:44	EPA 8260D	
Carbon tetrachloride	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Chlorobenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Chloroethane	ND	---	5.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Chloroform	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Chloromethane	ND	---	5.00	ug/L	1	05/13/20 17:44	EPA 8260D	
2-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
4-Chlorotoluene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Dibromochloromethane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Dibromomethane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2-Dichloropropane	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Trip Blank (A0E0368-07)				**Matrix: Water**		**Batch: 0050467**		
1,1-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	05/13/20 17:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	05/13/20 17:44	EPA 8260D	
2-Hexanone	ND	---	10.0	ug/L	1	05/13/20 17:44	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Methylene chloride	ND	---	10.0	ug/L	1	05/13/20 17:44	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	05/13/20 17:44	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	05/13/20 17:44	EPA 8260D	
n-Propylbenzene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Styrene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
Vinyl chloride	ND	---	0.400	ug/L	1	05/13/20 17:44	EPA 8260D	
m,p-Xylene	ND	---	1.00	ug/L	1	05/13/20 17:44	EPA 8260D	
o-Xylene	ND	---	0.500	ug/L	1	05/13/20 17:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*110 %*	*Limits:*	*80-120 %*	*1*	*05/13/20 17:44*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*		*80-120 %*	*1*	*05/13/20 17:44*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*	*1*	*05/13/20 17:44*	*EPA 8260D*	

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Kevin J. Friscia, Project Manager

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050590 - EPA 3510C (Fuels/Acid Ext.)												**Water**
Blank (0050590-BLK1)			Prepared: 05/15/20 11:04		Analyzed: 05/15/20 21:14							
NWTPH-Dx LL												
Diesel	ND	---	0.0727	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.145	mg/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 72 %*		*Limits: 50-150 %*		*Dilution: 1x*					
LCS (0050590-BS1)			Prepared: 05/15/20 11:04		Analyzed: 05/15/20 21:36							
NWTPH-Dx LL												
Diesel	0.372	---	0.0800	mg/L	1	0.500	---	74	59 - 115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 86 %*		*Limits: 50-150 %*		*Dilution: 1x*					
LCS Dup (0050590-BSD1)			Prepared: 05/15/20 11:04		Analyzed: 05/15/20 21:59							**Q-19**
NWTPH-Dx LL												
Diesel	0.399	---	0.0800	mg/L	1	0.500	---	80	59 - 115%	7	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 86 %*		*Limits: 50-150 %*		*Dilution: 1x*					
Batch 0050676 - EPA 3510C (Fuels/Acid Ext.)												**Water**
Blank (0050676-BLK1)			Prepared: 05/19/20 10:45		Analyzed: 05/19/20 22:16							
NWTPH-Dx LL												
Diesel	ND	---	0.0727	mg/L	1	---	---	---	---	---	---	
Oil	ND	---	0.145	mg/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 96 %*		*Limits: 50-150 %*		*Dilution: 1x*					
LCS (0050676-BS1)			Prepared: 05/19/20 10:45		Analyzed: 05/19/20 22:39							
NWTPH-Dx LL												
Diesel	0.399	---	0.0800	mg/L	1	0.500	---	80	59 - 115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 98 %*		*Limits: 50-150 %*		*Dilution: 1x*					
LCS Dup (0050676-BSD1)			Prepared: 05/19/20 10:45		Analyzed: 05/19/20 23:01							**Q-19**
NWTPH-Dx LL												
Diesel	0.425	---	0.0800	mg/L	1	0.500	---	85	59 - 115%	6	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 99 %*		*Limits: 50-150 %*		*Dilution: 1x*					

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050467 - EPA 5030B									Water			
Blank (0050467-BLK1)		Prepared: 05/13/20 07:30		Analyzed: 05/13/20 09:35								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 105 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*107 %*		*50-150 %*			*"*				
LCS (0050467-BS2)		Prepared: 05/13/20 07:30		Analyzed: 05/13/20 09:08								
NWTPH-Gx (MS)												
Gasoline Range Organics	0.471	---	0.100	mg/L	1	0.500	---	94	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*100 %*		*50-150 %*			*"*				

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050467 - EPA 5030B							**Water**					
Blank (0050467-BLK1)		Prepared: 05/13/20 07:30		Analyzed: 05/13/20 09:35								
EPA 8260D												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.400	ug/L	1	---	---	---	---	---	---	

Apex Laboratories

Kevin J. Friscia, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050467 - EPA 5030B							**Water**					
Blank (0050467-BLK1)		Prepared: 05/13/20 07:30		Analyzed: 05/13/20 09:35								
1,2-Dichloropropane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 108 %*		*Limits: 80-120 %*				*Dilution: 1x*				

Apex Laboratories

Kevin J. Friscia, Project Manager

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503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050467 - EPA 5030B									Water			
Blank (0050467-BLK1)			Prepared: 05/13/20 07:30 Analyzed: 05/13/20 09:35									
Surr: Toluene-d8 (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*				*Dilution: 1x*				
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*				*"*				
LCS (0050467-BS1)			Prepared: 05/13/20 07:30 Analyzed: 05/13/20 08:41									
EPA 8260D												
Acetone	35.0	---	20.0	ug/L	1	40.0	---	88	80 - 120%	---	---	
Acrylonitrile	20.3	---	2.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Benzene	20.9	---	0.200	ug/L	1	20.0	---	104	80 - 120%	---	---	
Bromobenzene	19.3	---	0.500	ug/L	1	20.0	---	97	80 - 120%	---	---	
Bromochloromethane	19.3	---	1.00	ug/L	1	20.0	---	97	80 - 120%	---	---	
Bromodichloromethane	21.8	---	1.00	ug/L	1	20.0	---	109	80 - 120%	---	---	
Bromoform	19.5	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
Bromomethane	18.1	---	5.00	ug/L	1	20.0	---	90	80 - 120%	---	---	
2-Butanone (MEK)	41.0	---	10.0	ug/L	1	40.0	---	103	80 - 120%	---	---	
n-Butylbenzene	20.7	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
sec-Butylbenzene	20.5	---	1.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
tert-Butylbenzene	20.1	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Carbon disulfide	22.4	---	10.0	ug/L	1	20.0	---	112	80 - 120%	---	---	
Carbon tetrachloride	24.6	---	1.00	ug/L	1	20.0	---	**123**	**80 - 120%**	---	---	Q-56
Chlorobenzene	19.9	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Chloroethane	20.0	---	5.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
Chloroform	20.4	---	1.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
Chloromethane	16.0	---	5.00	ug/L	1	20.0	---	80	80 - 120%	---	---	
2-Chlorotoluene	19.8	---	1.00	ug/L	1	20.0	---	99	80 - 120%	---	---	
4-Chlorotoluene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Dibromochloromethane	19.6	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	19.6	---	5.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	21.0	---	0.500	ug/L	1	20.0	---	105	80 - 120%	---	---	
Dibromomethane	20.7	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,2-Dichlorobenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,3-Dichlorobenzene	20.9	---	0.500	ug/L	1	20.0	---	105	80 - 120%	---	---	
1,4-Dichlorobenzene	19.1	---	0.500	ug/L	1	20.0	---	95	80 - 120%	---	---	
Dichlorodifluoromethane	16.7	---	1.00	ug/L	1	20.0	---	83	80 - 120%	---	---	
1,1-Dichloroethane	20.4	---	0.400	ug/L	1	20.0	---	102	80 - 120%	---	---	

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Apex Laboratories, LLC

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EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050467 - EPA 5030B							**Water**					
LCS (0050467-BS1)		Prepared: 05/13/20 07:30		Analyzed: 05/13/20 08:41								
1,2-Dichloroethane (EDC)	20.6	---	0.400	ug/L	1	20.0	---	103	80 - 120%	---	---	
1,1-Dichloroethene	20.1	---	0.400	ug/L	1	20.0	---	101	80 - 120%	---	---	
cis-1,2-Dichloroethene	19.7	---	0.400	ug/L	1	20.0	---	98	80 - 120%	---	---	
trans-1,2-Dichloroethene	19.4	---	0.400	ug/L	1	20.0	---	97	80 - 120%	---	---	
1,2-Dichloropropane	20.0	---	0.500	ug/L	1	20.0	---	100	80 - 120%	---	---	
1,3-Dichloropropane	20.0	---	1.00	ug/L	1	20.0	---	100	80 - 120%	---	---	
2,2-Dichloropropane	27.5	---	1.00	ug/L	1	20.0	---	**137**	**80 - 120%**	---	---	Q-56
1,1-Dichloropropene	22.1	---	1.00	ug/L	1	20.0	---	110	80 - 120%	---	---	
cis-1,3-Dichloropropene	17.3	---	2.00	ug/L	1	20.0	---	86	80 - 120%	---	---	
trans-1,3-Dichloropropene	20.2	---	1.00	ug/L	1	20.0	---	101	80 - 120%	---	---	
Ethylbenzene	20.8	---	0.500	ug/L	1	20.0	---	104	80 - 120%	---	---	
Hexachlorobutadiene	21.9	---	5.00	ug/L	1	20.0	---	109	80 - 120%	---	---	
2-Hexanone	38.5	---	10.0	ug/L	1	40.0	---	96	80 - 120%	---	---	
Isopropylbenzene	19.6	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
4-Isopropyltoluene	19.3	---	1.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
Methylene chloride	19.8	---	10.0	ug/L	1	20.0	---	99	80 - 120%	---	---	
4-Methyl-2-pentanone (MiBK)	39.6	---	10.0	ug/L	1	40.0	---	99	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	21.9	---	1.00	ug/L	1	20.0	---	109	80 - 120%	---	---	
Naphthalene	18.6	---	2.00	ug/L	1	20.0	---	93	80 - 120%	---	---	
n-Propylbenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Styrene	19.8	---	1.00	ug/L	1	20.0	---	99	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	21.6	---	0.400	ug/L	1	20.0	---	108	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	19.7	---	0.500	ug/L	1	20.0	---	99	80 - 120%	---	---	
Tetrachloroethene (PCE)	21.4	---	0.400	ug/L	1	20.0	---	107	80 - 120%	---	---	
Toluene	19.6	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,2,3-Trichlorobenzene	21.6	---	2.00	ug/L	1	20.0	---	108	80 - 120%	---	---	
1,2,4-Trichlorobenzene	19.2	---	2.00	ug/L	1	20.0	---	96	80 - 120%	---	---	
1,1,1-Trichloroethane	22.1	---	0.400	ug/L	1	20.0	---	111	80 - 120%	---	---	
1,1,2-Trichloroethane	20.3	---	0.500	ug/L	1	20.0	---	101	80 - 120%	---	---	
Trichloroethene (TCE)	19.2	---	0.400	ug/L	1	20.0	---	96	80 - 120%	---	---	
Trichlorofluoromethane	20.3	---	2.00	ug/L	1	20.0	---	102	80 - 120%	---	---	
1,2,3-Trichloropropane	19.7	---	1.00	ug/L	1	20.0	---	98	80 - 120%	---	---	
1,2,4-Trimethylbenzene	20.7	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	
1,3,5-Trimethylbenzene	20.8	---	1.00	ug/L	1	20.0	---	104	80 - 120%	---	---	

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0050467 - EPA 5030B												**Water**
LCS (0050467-BS1)		Prepared: 05/13/20 07:30		Analyzed: 05/13/20 08:41								
Vinyl chloride	18.0	---	0.400	ug/L	1	20.0	---	90	80 - 120%	---	---	
m,p-Xylene	40.1	---	1.00	ug/L	1	40.0	---	100	80 - 120%	---	---	
o-Xylene	18.8	---	0.500	ug/L	1	20.0	---	94	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*96 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*96 %*		*80-120 %*			*"*					

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050590							
A0E0368-04	Water	NWTPH-Dx LL	05/13/20 06:32	05/15/20 11:07	1040mL/2mL	1000mL/2mL	0.96
A0E0368-05	Water	NWTPH-Dx LL	05/13/20 06:40	05/15/20 11:07	1070mL/2mL	1000mL/2mL	0.94
A0E0368-06	Water	NWTPH-Dx LL	05/13/20 06:49	05/15/20 11:07	980mL/2mL	1000mL/2mL	1.02
Batch: 0050676							
A0E0368-01	Water	NWTPH-Dx LL	05/13/20 07:45	05/19/20 12:49	1060mL/2mL	1000mL/2mL	0.94
A0E0368-02	Water	NWTPH-Dx LL	05/13/20 07:34	05/19/20 12:49	1060mL/2mL	1000mL/2mL	0.94
A0E0368-03	Water	NWTPH-Dx LL	05/13/20 08:32	05/19/20 12:49	1070mL/2mL	1000mL/2mL	0.94

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050467							
A0E0368-01	Water	NWTPH-Gx (MS)	05/13/20 07:45	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-02	Water	NWTPH-Gx (MS)	05/13/20 07:34	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-03	Water	NWTPH-Gx (MS)	05/13/20 08:32	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-04	Water	NWTPH-Gx (MS)	05/13/20 06:32	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-05	Water	NWTPH-Gx (MS)	05/13/20 06:40	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-06	Water	NWTPH-Gx (MS)	05/13/20 06:49	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0050467							
A0E0368-01	Water	EPA 8260D	05/13/20 07:45	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-02	Water	EPA 8260D	05/13/20 07:34	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-03	Water	EPA 8260D	05/13/20 08:32	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-04	Water	EPA 8260D	05/13/20 06:32	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-05	Water	EPA 8260D	05/13/20 06:40	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-06	Water	EPA 8260D	05/13/20 06:49	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00
A0E0368-07	Water	EPA 8260D	05/13/20 08:50	05/13/20 15:00	5mL/5mL	5mL/5mL	1.00

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Kevin J. Friscia, Project Manager

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

A-01	Result for Diesel (Diesel Range Organics, C12-C18) is due to overlap from Gasoline or a Gasoline Range product.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260C

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Kevin J. Friscia, Project Manager

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Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Kevin J. Friscia, Project Manager

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Kevin J. Friscia, Project Manager

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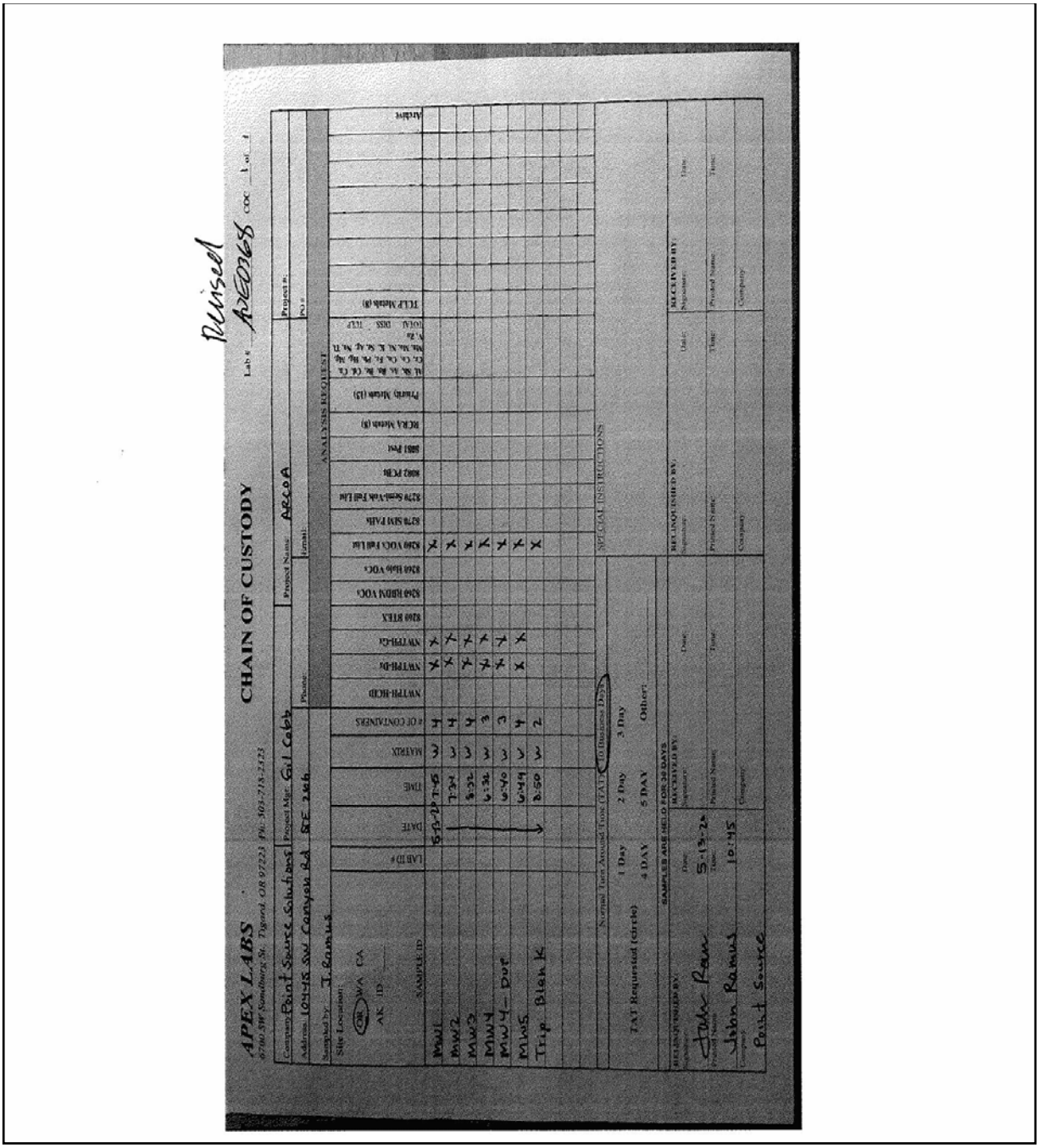
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**



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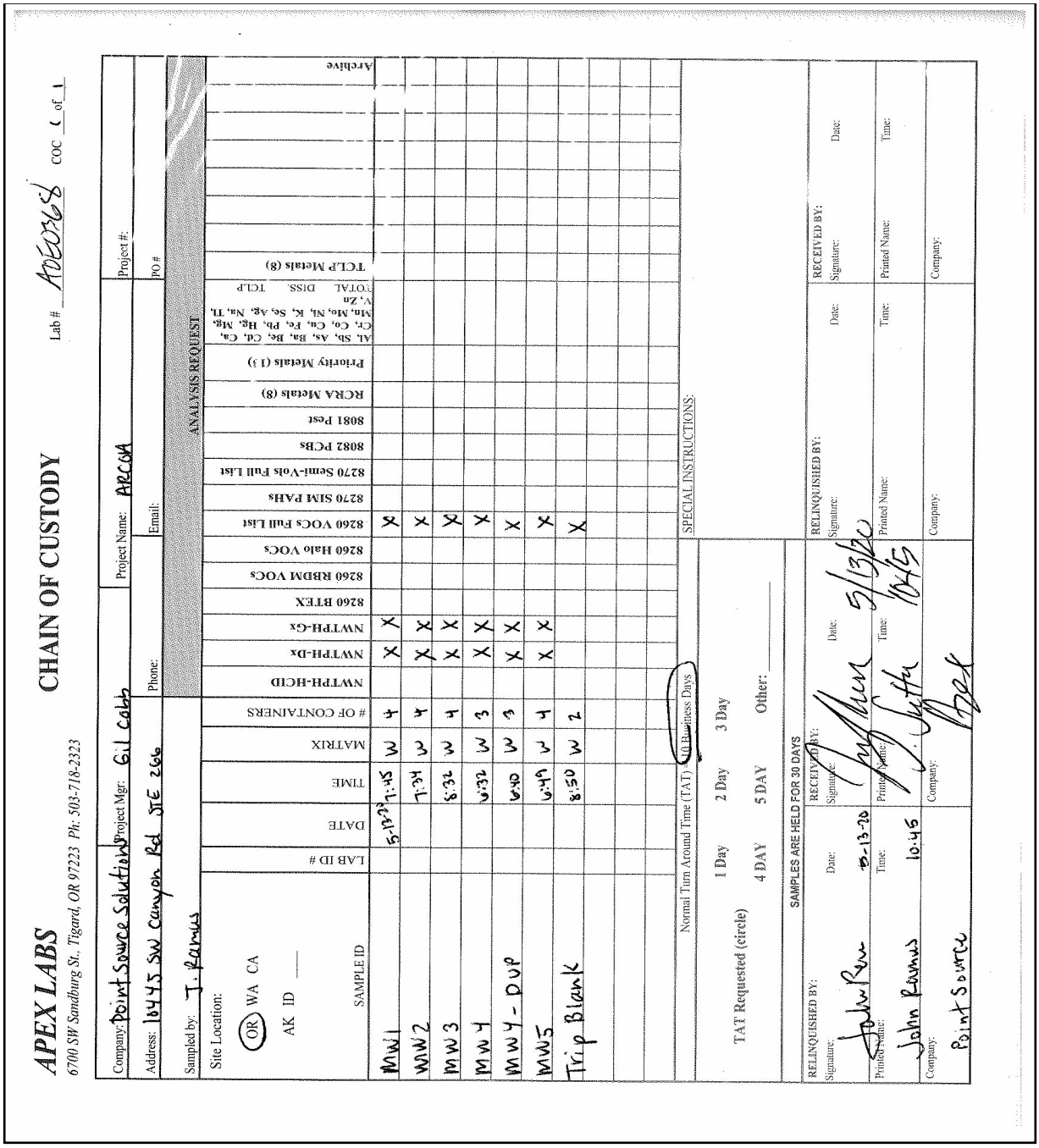

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A0E0368 COC 1 of 1

Company: Point Source Solutions Project Mgr: Gil Cobb
Address: 10445 SW Canyon Rd STE 266 Phone:
Sampled by: T. Parnus

Project Name: ARCOA Project #:
Email: PO #

Site Location: (OR) WA CA AK ID ___

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
MW1		5-13-20	7:45	W	4		X	X				X								
MW2			7:24	W	4		X	X				X								
MW3			6:32	W	4		X	X				X								
MW4			6:32	W	3		X	X				X								
MW4-DUP			6:40	W	3		X	X				X								
MW5			6:49	W	4		X	X				X								
Trip Blank			8:50	W	2							X								

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) 10 Business Days

TAT Requested (circle)
1 Day 2 Day 3 Day
4 DAY 5 DAY Other: ____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: John Penn	Signature:	Signature:	Signature:
Printed Name: John Penn	Printed Name:	Printed Name:	Printed Name:
Company: Point Source	Company:	Company:	Company:
Date: 5-13-20	Date:	Date: 5/13/20	Date:
Time: 10:45	Time:	Time: 1045	Time:

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EPA ID: OR01039

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10445 SW Canyon Road Suite 115	Project Number: **OR190501-3**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0E0368 - 06 01 20 1634**

APEX LABS COOLER RECEIPT FORM

Client: Point Source Solutions Element WO#: A0 E0368

Project/Project #: ARCOIA

Delivery Info:

Date/time received: 5/13/20 @ 1045 By: JS

Delivered by: Apex___ Client X ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other___

Cooler Inspection Date/time inspected: 5/13/20 @ 1045 By: JS

Chain of Custody included? Yes X No___ Custody seals? Yes___ No X

Signed/dated by client? Yes X No___

Signed/dated by Apex? Yes X No___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.4						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	real						
Condition:	good						

Cooler out of temp? (Y/(N)) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/(NA)

Out of temperature samples form initiated? Yes/No/(NA)

Samples Inspection: Date/time inspected: 5/13/20 @ 15:13 By: LG

All samples intact? Yes X No___ Comments:

Bottle labels/COCs agree? Yes X No___ Comments: No T/D on VOAs.

COC/container discrepancies form initiated? Yes___ No X

Containers/volumes received appropriate for analysis? Yes X No___ Comments:

Do VOA vials have visible headspace? Yes___ No X NA___

Comments

Water samples: pH checked: Yes X No___ NA___ pH appropriate? Yes X No___ NA___

Comments:

Additional information: Trip blank not lab created

Labeled by: LG Witness: JS Cooler Inspected by: Client See Project Contact Form: Y

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Monday, October 26, 2020

Gil Cobb
Point Source Solutions, LLC
10445 SW Canyon Road Suite 115
Beaverton, OR 97005

RE: A0J0198 - Arcoa Building - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0J0198, which was received by the laboratory on 10/6/2020 at 1:36:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: KFriscia@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample reciept, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1	5.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Kevin J. Friscia, Project Manager

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ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	A0J0198-01	Water	10/06/20 09:50	10/06/20 13:36
MW2	A0J0198-02	Water	10/06/20 10:47	10/06/20 13:36
MW3	A0J0198-03	Water	10/06/20 10:35	10/06/20 13:36
MW4	A0J0198-04	Water	10/06/20 08:50	10/06/20 13:36
MW5	A0J0198-05	Water	10/06/20 09:41	10/06/20 13:36
MW6	A0J0198-06	Water	10/06/20 11:10	10/06/20 13:36

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0J0198-01)				**Matrix: Water**		**Batch: 0100252**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	10/08/20 05:12	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 89 %*	*Limits: 50-150 %*		*1*	*10/08/20 05:12*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)		*100 %*	*50-150 %*		*1*	*10/08/20 05:12*	*NWTPH-Gx (MS)*	
MW2 (A0J0198-02)				**Matrix: Water**		**Batch: 0100252**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	10/08/20 06:06	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 91 %*	*Limits: 50-150 %*		*1*	*10/08/20 06:06*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)		*104 %*	*50-150 %*		*1*	*10/08/20 06:06*	*NWTPH-Gx (MS)*	
MW3 (A0J0198-03)				**Matrix: Water**		**Batch: 0100252**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	10/08/20 06:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 92 %*	*Limits: 50-150 %*		*1*	*10/08/20 06:33*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)		*102 %*	*50-150 %*		*1*	*10/08/20 06:33*	*NWTPH-Gx (MS)*	
MW4 (A0J0198-04)				**Matrix: Water**		**Batch: 0100252**		
Gasoline Range Organics	**0.824**	---	0.100	mg/L	1	10/08/20 07:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 105 %*	*Limits: 50-150 %*		*1*	*10/08/20 07:00*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)		*104 %*	*50-150 %*		*1*	*10/08/20 07:00*	*NWTPH-Gx (MS)*	
MW5 (A0J0198-05)				**Matrix: Water**		**Batch: 0100252**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	10/08/20 07:27	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 90 %*	*Limits: 50-150 %*		*1*	*10/08/20 07:27*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)		*103 %*	*50-150 %*		*1*	*10/08/20 07:27*	*NWTPH-Gx (MS)*	
MW6 (A0J0198-06)				**Matrix: Water**		**Batch: 0100252**		
Gasoline Range Organics	ND	---	0.100	mg/L	1	10/08/20 11:04	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 89 %*	*Limits: 50-150 %*		*1*	*10/08/20 11:04*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)		*100 %*	*50-150 %*		*1*	*10/08/20 11:04*	*NWTPH-Gx (MS)*	

Apex Laboratories

Kevin J. Friscia, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0J0198-01)				**Matrix: Water**		**Batch: 0100252**		
Acetone	ND	---	0.0200	mg/L	1	10/08/20 05:12	EPA 8260D	
Acrylonitrile	ND	---	0.00200	mg/L	1	10/08/20 05:12	EPA 8260D	
Benzene	ND	---	0.000200	mg/L	1	10/08/20 05:12	EPA 8260D	
Bromobenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Bromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Bromodichloromethane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Bromoform	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Bromomethane	ND	---	0.00500	mg/L	1	10/08/20 05:12	EPA 8260D	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	10/08/20 05:12	EPA 8260D	
n-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Carbon disulfide	ND	---	0.0100	mg/L	1	10/08/20 05:12	EPA 8260D	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Chlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Chloroethane	ND	---	0.00500	mg/L	1	10/08/20 05:12	EPA 8260D	EST
Chloroform	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Chloromethane	ND	---	0.00500	mg/L	1	10/08/20 05:12	EPA 8260D	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Dibromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Dibromomethane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW1 (A0J0198-01)				**Matrix: Water**		**Batch: 0100252**		
Ethylbenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	10/08/20 05:12	EPA 8260D	
2-Hexanone	ND	---	0.0100	mg/L	1	10/08/20 05:12	EPA 8260D	
Isopropylbenzene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Methylene chloride	ND	---	0.0100	mg/L	1	10/08/20 05:12	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	10/08/20 05:12	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Naphthalene	ND	---	0.00200	mg/L	1	10/08/20 05:12	EPA 8260D	
n-Propylbenzene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Styrene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Tetrachloroethene (PCE)	**0.000667**	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
Toluene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
Vinyl chloride	ND	---	0.000400	mg/L	1	10/08/20 05:12	EPA 8260D	
m,p-Xylene	ND	---	0.00100	mg/L	1	10/08/20 05:12	EPA 8260D	
o-Xylene	ND	---	0.000500	mg/L	1	10/08/20 05:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*109 %*	*Limits:*	*80-120 %*	*1*	*10/08/20 05:12*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*10/08/20 05:12*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*108 %*		*80-120 %*	*1*	*10/08/20 05:12*	*EPA 8260D*	
MW2 (A0J0198-02)				**Matrix: Water**		**Batch: 0100252**		
Acetone	ND	---	0.0200	mg/L	1	10/08/20 06:06	EPA 8260D	
Acrylonitrile	ND	---	0.00200	mg/L	1	10/08/20 06:06	EPA 8260D	
Benzene	ND	---	0.000200	mg/L	1	10/08/20 06:06	EPA 8260D	
Bromobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Bromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Bromodichloromethane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A0J0198-02)				**Matrix: Water**		**Batch: 0100252**		
Bromoform	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Bromomethane	ND	---	0.00500	mg/L	1	10/08/20 06:06	EPA 8260D	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	10/08/20 06:06	EPA 8260D	
n-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Carbon disulfide	ND	---	0.0100	mg/L	1	10/08/20 06:06	EPA 8260D	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Chlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Chloroethane	ND	---	0.00500	mg/L	1	10/08/20 06:06	EPA 8260D	EST
Chloroform	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Chloromethane	ND	---	0.00500	mg/L	1	10/08/20 06:06	EPA 8260D	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Dibromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Dibromomethane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Ethylbenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	10/08/20 06:06	EPA 8260D	
2-Hexanone	ND	---	0.0100	mg/L	1	10/08/20 06:06	EPA 8260D	
Isopropylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Methylene chloride	ND	---	0.0100	mg/L	1	10/08/20 06:06	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW2 (A0J0198-02)				**Matrix: Water**		**Batch: 0100252**		
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	10/08/20 06:06	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Naphthalene	ND	---	0.00200	mg/L	1	10/08/20 06:06	EPA 8260D	
n-Propylbenzene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Styrene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Tetrachloroethene (PCE)	**0.000952**	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
Toluene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
Vinyl chloride	ND	---	0.000400	mg/L	1	10/08/20 06:06	EPA 8260D	
m,p-Xylene	ND	---	0.00100	mg/L	1	10/08/20 06:06	EPA 8260D	
o-Xylene	ND	---	0.000500	mg/L	1	10/08/20 06:06	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*112 %*	*Limits: 80-120 %*	*1*	*10/08/20 06:06*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*10/08/20 06:06*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*10/08/20 06:06*	*EPA 8260D*	
MW3 (A0J0198-03)				**Matrix: Water**		**Batch: 0100252**		
Acetone	ND	---	0.0200	mg/L	1	10/08/20 06:33	EPA 8260D	
Acrylonitrile	ND	---	0.00200	mg/L	1	10/08/20 06:33	EPA 8260D	
Benzene	ND	---	0.000200	mg/L	1	10/08/20 06:33	EPA 8260D	
Bromobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Bromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Bromodichloromethane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Bromoform	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Bromomethane	ND	---	0.00500	mg/L	1	10/08/20 06:33	EPA 8260D	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	10/08/20 06:33	EPA 8260D	
n-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A0J0198-03)				**Matrix: Water**		**Batch: 0100252**		
Carbon disulfide	ND	---	0.0100	mg/L	1	10/08/20 06:33	EPA 8260D	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Chlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Chloroethane	ND	---	0.00500	mg/L	1	10/08/20 06:33	EPA 8260D	EST
Chloroform	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Chloromethane	ND	---	0.00500	mg/L	1	10/08/20 06:33	EPA 8260D	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Dibromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Dibromomethane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Ethylbenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	10/08/20 06:33	EPA 8260D	
2-Hexanone	ND	---	0.0100	mg/L	1	10/08/20 06:33	EPA 8260D	
Isopropylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Methylene chloride	ND	---	0.0100	mg/L	1	10/08/20 06:33	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	10/08/20 06:33	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Naphthalene	ND	---	0.00200	mg/L	1	10/08/20 06:33	EPA 8260D	
n-Propylbenzene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Styrene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW3 (A0J0198-03)				**Matrix: Water**		**Batch: 0100252**		
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Tetrachloroethene (PCE)	**0.000785**	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
Toluene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 06:33	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
Vinyl chloride	ND	---	0.000400	mg/L	1	10/08/20 06:33	EPA 8260D	
m,p-Xylene	ND	---	0.00100	mg/L	1	10/08/20 06:33	EPA 8260D	
o-Xylene	ND	---	0.000500	mg/L	1	10/08/20 06:33	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*10/08/20 06:33*	*EPA 8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*10/08/20 06:33*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*10/08/20 06:33*	*EPA 8260D*	
MW4 (A0J0198-04)				**Matrix: Water**		**Batch: 0100252**		
Acetone	ND	---	0.0200	mg/L	1	10/08/20 07:00	EPA 8260D	
Acrylonitrile	ND	---	0.00200	mg/L	1	10/08/20 07:00	EPA 8260D	
Benzene	**0.000203**	---	0.000200	mg/L	1	10/08/20 07:00	EPA 8260D	
Bromobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Bromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Bromodichloromethane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Bromoform	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Bromomethane	ND	---	0.00500	mg/L	1	10/08/20 07:00	EPA 8260D	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	10/08/20 07:00	EPA 8260D	
n-Butylbenzene	**0.00154**	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
sec-Butylbenzene	**0.0102**	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
tert-Butylbenzene	**0.00123**	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Carbon disulfide	ND	---	0.0100	mg/L	1	10/08/20 07:00	EPA 8260D	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Chlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Chloroethane	ND	---	0.00500	mg/L	1	10/08/20 07:00	EPA 8260D	EST
Chloroform	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Chloromethane	ND	---	0.00500	mg/L	1	10/08/20 07:00	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A0J0198-04)				**Matrix: Water**		**Batch: 0100252**		
2-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Dibromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Dibromomethane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
cis-1,2-Dichloroethene	**0.000661**	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Ethylbenzene	**0.00110**	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	10/08/20 07:00	EPA 8260D	
2-Hexanone	ND	---	0.0100	mg/L	1	10/08/20 07:00	EPA 8260D	
Isopropylbenzene	**0.00555**	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Methylene chloride	ND	---	0.0100	mg/L	1	10/08/20 07:00	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	10/08/20 07:00	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Naphthalene	ND	---	0.00200	mg/L	1	10/08/20 07:00	EPA 8260D	
n-Propylbenzene	**0.00811**	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Styrene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
Toluene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 07:00	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW4 (A0J0198-04)				**Matrix: Water**		**Batch: 0100252**		
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,2,4-Trimethylbenzene	**0.00915**	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
1,3,5-Trimethylbenzene	**0.00118**	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
Vinyl chloride	**0.000589**	---	0.000400	mg/L	1	10/08/20 07:00	EPA 8260D	
m,p-Xylene	ND	---	0.00100	mg/L	1	10/08/20 07:00	EPA 8260D	
o-Xylene	ND	---	0.000500	mg/L	1	10/08/20 07:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*113 %*	*Limits: 80-120 %*	*1*	*10/08/20 07:00*	*EPA 8260D*	
Toluene-d8 (Surr)			*94 %*	*80-120 %*	*1*	*10/08/20 07:00*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*104 %*	*80-120 %*	*1*	*10/08/20 07:00*	*EPA 8260D*	
MW5 (A0J0198-05)				**Matrix: Water**		**Batch: 0100252**		
Acetone	ND	---	0.0200	mg/L	1	10/08/20 07:27	EPA 8260D	
Acrylonitrile	ND	---	0.00200	mg/L	1	10/08/20 07:27	EPA 8260D	
Benzene	ND	---	0.000200	mg/L	1	10/08/20 07:27	EPA 8260D	
Bromobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Bromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Bromodichloromethane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Bromoform	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Bromomethane	ND	---	0.00500	mg/L	1	10/08/20 07:27	EPA 8260D	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	10/08/20 07:27	EPA 8260D	
n-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Carbon disulfide	ND	---	0.0100	mg/L	1	10/08/20 07:27	EPA 8260D	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Chlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Chloroethane	ND	---	0.00500	mg/L	1	10/08/20 07:27	EPA 8260D	EST
Chloroform	**0.00108**	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Chloromethane	ND	---	0.00500	mg/L	1	10/08/20 07:27	EPA 8260D	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Dibromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Dibromomethane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A0J0198-05)				**Matrix: Water**		**Batch: 0100252**		
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Ethylbenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	10/08/20 07:27	EPA 8260D	
2-Hexanone	ND	---	0.0100	mg/L	1	10/08/20 07:27	EPA 8260D	
Isopropylbenzene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Methylene chloride	ND	---	0.0100	mg/L	1	10/08/20 07:27	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	10/08/20 07:27	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
Naphthalene	ND	---	0.00200	mg/L	1	10/08/20 07:27	EPA 8260D	
n-Propylbenzene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Styrene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Tetrachloroethene (PCE)	**0.00127**	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
Toluene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW5 (A0J0198-05)				**Matrix: Water**		**Batch: 0100252**		
Vinyl chloride	ND	---	0.000400	mg/L	1	10/08/20 07:27	EPA 8260D	
m,p-Xylene	ND	---	0.00100	mg/L	1	10/08/20 07:27	EPA 8260D	
o-Xylene	ND	---	0.000500	mg/L	1	10/08/20 07:27	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*111 %*	*Limits: 80-120 %*	*1*	*10/08/20 07:27*	*EPA 8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*10/08/20 07:27*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*107 %*	*80-120 %*	*1*	*10/08/20 07:27*	*EPA 8260D*	
MW6 (A0J0198-06)				**Matrix: Water**		**Batch: 0100252**		
Acetone	ND	---	0.0200	mg/L	1	10/08/20 11:04	EPA 8260D	
Acrylonitrile	ND	---	0.00200	mg/L	1	10/08/20 11:04	EPA 8260D	
Bromobenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Bromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Bromodichloromethane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Bromoform	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Bromomethane	ND	---	0.00500	mg/L	1	10/08/20 11:04	EPA 8260D	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	10/08/20 11:04	EPA 8260D	
n-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Carbon disulfide	ND	---	0.0100	mg/L	1	10/08/20 11:04	EPA 8260D	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Chlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Chloroethane	ND	---	0.00500	mg/L	1	10/08/20 11:04	EPA 8260D	EST
Chloroform	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Chloromethane	ND	---	0.00500	mg/L	1	10/08/20 11:04	EPA 8260D	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Dibromochloromethane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Dibromomethane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	

Apex Laboratories

Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW6 (A0J0198-06)				**Matrix: Water**		**Batch: 0100252**		
cis-1,2-Dichloroethene	**0.000401**	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Ethylbenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	10/08/20 11:04	EPA 8260D	
2-Hexanone	ND	---	0.0100	mg/L	1	10/08/20 11:04	EPA 8260D	
Isopropylbenzene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Methylene chloride	ND	---	0.0100	mg/L	1	10/08/20 11:04	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	10/08/20 11:04	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Naphthalene	ND	---	0.00200	mg/L	1	10/08/20 11:04	EPA 8260D	
n-Propylbenzene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Styrene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Tetrachloroethene (PCE)	**0.000698**	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
Toluene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
Vinyl chloride	ND	---	0.000400	mg/L	1	10/08/20 11:04	EPA 8260D	
m,p-Xylene	ND	---	0.00100	mg/L	1	10/08/20 11:04	EPA 8260D	
o-Xylene	ND	---	0.000500	mg/L	1	10/08/20 11:04	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits:*	*80-120 %*	*1*	*10/08/20 11:04*	*EPA 8260D*	
Toluene-d8 (Surr)			*99 %*		*80-120 %*	*1*	*10/08/20 11:04*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*105 %*		*80-120 %*	*1*	*10/08/20 11:04*	*EPA 8260D*	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW6 (A0J0198-06RE1)				**Matrix: Water**		**Batch: 0100253**		
Benzene	ND	---	0.000200	mg/L	1	10/08/20 16:21	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*10/08/20 16:21*	*EPA 8260D*	
Toluene-d8 (Surr)			*103 %*	*80-120 %*	*1*	*10/08/20 16:21*	*EPA 8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*10/08/20 16:21*	*EPA 8260D*	

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Kevin J. Friscia, Project Manager

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ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B									Water			
Blank (0100252-BLK1)		Prepared: 10/07/20 22:30		Analyzed: 10/08/20 00:15								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 87 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*101 %*		*50-150 %*			*"*				
LCS (0100252-BS2)		Prepared: 10/07/20 22:30		Analyzed: 10/07/20 23:48								
NWTPH-Gx (MS)												
Gasoline Range Organics	0.436	---	0.100	mg/L	1	0.500	---	87	80 - 120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*99 %*		*50-150 %*			*"*				
Duplicate (0100252-DUP2)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 05:39								
QC Source Sample: MW1 (A0J0198-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 90 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*100 %*		*50-150 %*			*"*				

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10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
Blank (0100252-BLK1)		Prepared: 10/07/20 22:30		Analyzed: 10/08/20 00:15								
EPA 8260D												
Acetone	ND	---	0.0200	mg/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.000200	mg/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Bromoform	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	EST
Chloroform	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
Blank (0100252-BLK1)		Prepared: 10/07/20 22:30		Analyzed: 10/08/20 00:15								
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Styrene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
Toluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 109 %*		*Limits: 80-120 %*			*Dilution: 1x*					

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B									Water			
Blank (0100252-BLK1)			Prepared: 10/07/20 22:30 Analyzed: 10/08/20 00:15									
Surr: Toluene-d8 (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*				*Dilution: 1x*				
4-Bromofluorobenzene (Surr)			*108 %*	*80-120 %*				*"*				
LCS (0100252-BS1)			Prepared: 10/07/20 22:30 Analyzed: 10/07/20 23:21									
EPA 8260D												
Acetone	0.0389	---	0.0200	mg/L	1	0.0400	---	97	80 - 120%	---	---	
Acrylonitrile	0.0228	---	0.00200	mg/L	1	0.0200	---	114	80 - 120%	---	---	
Benzene	0.0213	---	0.000200	mg/L	1	0.0200	---	107	80 - 120%	---	---	
Bromobenzene	0.0205	---	0.000500	mg/L	1	0.0200	---	103	80 - 120%	---	---	
Bromochloromethane	0.0238	---	0.00100	mg/L	1	0.0200	---	119	80 - 120%	---	---	
Bromodichloromethane	0.0228	---	0.00100	mg/L	1	0.0200	---	114	80 - 120%	---	---	
Bromoform	0.0254	---	0.00100	mg/L	1	0.0200	---	**127**	**80 - 120%**	---	---	Q-56
Bromomethane	0.0247	---	0.00500	mg/L	1	0.0200	---	**123**	**80 - 120%**	---	---	Q-56
2-Butanone (MEK)	0.0396	---	0.0100	mg/L	1	0.0400	---	99	80 - 120%	---	---	
n-Butylbenzene	0.0205	---	0.00100	mg/L	1	0.0200	---	103	80 - 120%	---	---	
sec-Butylbenzene	0.0202	---	0.00100	mg/L	1	0.0200	---	101	80 - 120%	---	---	
tert-Butylbenzene	0.0183	---	0.00100	mg/L	1	0.0200	---	92	80 - 120%	---	---	
Carbon disulfide	0.0209	---	0.0100	mg/L	1	0.0200	---	105	80 - 120%	---	---	
Carbon tetrachloride	0.0237	---	0.00100	mg/L	1	0.0200	---	119	80 - 120%	---	---	
Chlorobenzene	0.0209	---	0.000500	mg/L	1	0.0200	---	104	80 - 120%	---	---	
Chloroethane	0.0192	---	0.00500	mg/L	1	0.0200	---	96	80 - 120%	---	---	EST
Chloroform	0.0220	---	0.00100	mg/L	1	0.0200	---	110	80 - 120%	---	---	
Chloromethane	0.0196	---	0.00500	mg/L	1	0.0200	---	98	80 - 120%	---	---	
2-Chlorotoluene	0.0204	---	0.00100	mg/L	1	0.0200	---	102	80 - 120%	---	---	
4-Chlorotoluene	0.0193	---	0.00100	mg/L	1	0.0200	---	97	80 - 120%	---	---	
Dibromochloromethane	0.0249	---	0.00100	mg/L	1	0.0200	---	**124**	**80 - 120%**	---	---	Q-56
1,2-Dibromo-3-chloropropane	0.0205	---	0.00500	mg/L	1	0.0200	---	102	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	0.0212	---	0.000500	mg/L	1	0.0200	---	106	80 - 120%	---	---	
Dibromomethane	0.0230	---	0.00100	mg/L	1	0.0200	---	115	80 - 120%	---	---	
1,2-Dichlorobenzene	0.0209	---	0.000500	mg/L	1	0.0200	---	104	80 - 120%	---	---	
1,3-Dichlorobenzene	0.0211	---	0.000500	mg/L	1	0.0200	---	105	80 - 120%	---	---	
1,4-Dichlorobenzene	0.0202	---	0.000500	mg/L	1	0.0200	---	101	80 - 120%	---	---	
Dichlorodifluoromethane	0.0193	---	0.00100	mg/L	1	0.0200	---	97	80 - 120%	---	---	
1,1-Dichloroethane	0.0204	---	0.000400	mg/L	1	0.0200	---	102	80 - 120%	---	---	

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
LCS (0100252-BS1)		Prepared: 10/07/20 22:30			Analyzed: 10/07/20 23:21							
1,2-Dichloroethane (EDC)	0.0199	---	0.000400	mg/L	1	0.0200	---	100	80 - 120%	---	---	
1,1-Dichloroethene	0.0207	---	0.000400	mg/L	1	0.0200	---	103	80 - 120%	---	---	
cis-1,2-Dichloroethene	0.0208	---	0.000400	mg/L	1	0.0200	---	104	80 - 120%	---	---	
trans-1,2-Dichloroethene	0.0208	---	0.000400	mg/L	1	0.0200	---	104	80 - 120%	---	---	
1,2-Dichloropropane	0.0213	---	0.000500	mg/L	1	0.0200	---	106	80 - 120%	---	---	
1,3-Dichloropropane	0.0203	---	0.00100	mg/L	1	0.0200	---	102	80 - 120%	---	---	
2,2-Dichloropropane	0.0179	---	0.00100	mg/L	1	0.0200	---	89	80 - 120%	---	---	
1,1-Dichloropropene	0.0207	---	0.00100	mg/L	1	0.0200	---	103	80 - 120%	---	---	
cis-1,3-Dichloropropene	0.0192	---	0.00100	mg/L	1	0.0200	---	96	80 - 120%	---	---	
trans-1,3-Dichloropropene	0.0182	---	0.00100	mg/L	1	0.0200	---	91	80 - 120%	---	---	
Ethylbenzene	0.0200	---	0.000500	mg/L	1	0.0200	---	100	80 - 120%	---	---	
Hexachlorobutadiene	0.0214	---	0.00500	mg/L	1	0.0200	---	107	80 - 120%	---	---	
2-Hexanone	0.0370	---	0.0100	mg/L	1	0.0400	---	93	80 - 120%	---	---	
Isopropylbenzene	0.0200	---	0.00100	mg/L	1	0.0200	---	100	80 - 120%	---	---	
4-Isopropyltoluene	0.0197	---	0.00100	mg/L	1	0.0200	---	99	80 - 120%	---	---	
Methylene chloride	0.0222	---	0.0100	mg/L	1	0.0200	---	111	80 - 120%	---	---	
4-Methyl-2-pentanone (MiBK)	0.0361	---	0.0100	mg/L	1	0.0400	---	90	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	0.0173	---	0.00100	mg/L	1	0.0200	---	87	80 - 120%	---	---	
Naphthalene	0.0167	---	0.00200	mg/L	1	0.0200	---	84	80 - 120%	---	---	
n-Propylbenzene	0.0192	---	0.000500	mg/L	1	0.0200	---	96	80 - 120%	---	---	
Styrene	0.0200	---	0.00100	mg/L	1	0.0200	---	100	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	0.0230	---	0.000400	mg/L	1	0.0200	---	115	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	0.0208	---	0.000500	mg/L	1	0.0200	---	104	80 - 120%	---	---	
Tetrachloroethene (PCE)	0.0218	---	0.000400	mg/L	1	0.0200	---	109	80 - 120%	---	---	
Toluene	0.0192	---	0.00100	mg/L	1	0.0200	---	96	80 - 120%	---	---	
1,2,3-Trichlorobenzene	0.0185	---	0.00200	mg/L	1	0.0200	---	92	80 - 120%	---	---	
1,2,4-Trichlorobenzene	0.0178	---	0.00200	mg/L	1	0.0200	---	89	80 - 120%	---	---	
1,1,1-Trichloroethane	0.0204	---	0.000400	mg/L	1	0.0200	---	102	80 - 120%	---	---	
1,1,2-Trichloroethane	0.0214	---	0.000500	mg/L	1	0.0200	---	107	80 - 120%	---	---	
Trichloroethene (TCE)	0.0239	---	0.000400	mg/L	1	0.0200	---	120	80 - 120%	---	---	
Trichlorofluoromethane	0.0245	---	0.00200	mg/L	1	0.0200	---	**122**	**80 - 120%**	---	---	Q-56
1,2,3-Trichloropropane	0.0213	---	0.00100	mg/L	1	0.0200	---	106	80 - 120%	---	---	
1,2,4-Trimethylbenzene	0.0201	---	0.00100	mg/L	1	0.0200	---	100	80 - 120%	---	---	
1,3,5-Trimethylbenzene	0.0200	---	0.00100	mg/L	1	0.0200	---	100	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B												
LCS (0100252-BS1)		Prepared: 10/07/20 22:30		Analyzed: 10/07/20 23:21								
Vinyl chloride	0.0189	---	0.000400	mg/L	1	0.0200	---	94	80 - 120%	---	---	
m,p-Xylene	0.0392	---	0.00100	mg/L	1	0.0400	---	98	80 - 120%	---	---	
o-Xylene	0.0188	---	0.000500	mg/L	1	0.0200	---	94	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 107 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*96 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*				*"*			
Duplicate (0100252-DUP2)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 05:39								
QC Source Sample: MW1 (A0J0198-01)												
EPA 8260D												
Acetone	ND	---	0.0200	mg/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	---	0.00200	mg/L	1	---	ND	---	---	---	30%	
Benzene	ND	---	0.000200	mg/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Bromoform	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	---	0.00500	mg/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	---	0.0100	mg/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	---	0.00500	mg/L	1	---	ND	---	---	---	30%	EST
Chloroform	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	---	0.00500	mg/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
Duplicate (0100252-DUP2)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 05:39								
QC Source Sample: MW1 (A0J0198-01)												
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	---	0.0100	mg/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	---	0.0100	mg/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.00200	mg/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Styrene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	**0.000667**	---	0.000400	mg/L	1	---	0.000667	---	---	0	30%	
Toluene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	

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Kevin J. Friscia, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
Duplicate (0100252-DUP2)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 05:39								
QC Source Sample: MW1 (A0J0198-01)												
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.000400	mg/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	0.00100	mg/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.000500	mg/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 108 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*99 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*105 %*		*80-120 %*			*"*					
Matrix Spike (0100252-MS1)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 11:31								**T-02**
QC Source Sample: MW6 (A0J0198-06)												
EPA 8260D												
Acetone	0.0416	---	0.0200	mg/L	1	0.0400	ND	104	39 - 160%	---	---	
Acrylonitrile	0.0214	---	0.00200	mg/L	1	0.0200	ND	107	63 - 135%	---	---	
Benzene	0.0212	---	0.000200	mg/L	1	0.0200	0.000227	105	79 - 120%	---	---	
Bromobenzene	0.0208	---	0.000500	mg/L	1	0.0200	ND	104	80 - 120%	---	---	
Bromochloromethane	0.0239	---	0.00100	mg/L	1	0.0200	ND	120	78 - 123%	---	---	
Bromodichloromethane	0.0228	---	0.00100	mg/L	1	0.0200	ND	114	79 - 125%	---	---	
Bromoform	0.0240	---	0.00100	mg/L	1	0.0200	ND	120	66 - 130%	---	---	Q-54c
Bromomethane	0.0299	---	0.00500	mg/L	1	0.0200	ND	**149**	**53 - 141%**	---	---	Q-54a
2-Butanone (MEK)	0.0394	---	0.0100	mg/L	1	0.0400	ND	99	56 - 143%	---	---	
n-Butylbenzene	0.0195	---	0.00100	mg/L	1	0.0200	ND	97	75 - 128%	---	---	
sec-Butylbenzene	0.0199	---	0.00100	mg/L	1	0.0200	ND	99	77 - 126%	---	---	
tert-Butylbenzene	0.0187	---	0.00100	mg/L	1	0.0200	ND	94	78 - 124%	---	---	
Carbon disulfide	0.0209	---	0.0100	mg/L	1	0.0200	ND	105	64 - 133%	---	---	
Carbon tetrachloride	0.0241	---	0.00100	mg/L	1	0.0200	ND	121	72 - 136%	---	---	
Chlorobenzene	0.0207	---	0.000500	mg/L	1	0.0200	ND	103	80 - 120%	---	---	
Chloroethane	0.0220	---	0.00500	mg/L	1	0.0200	ND	110	60 - 138%	---	---	EST
Chloroform	0.0223	---	0.00100	mg/L	1	0.0200	ND	112	79 - 124%	---	---	

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
Matrix Spike (0100252-MS1)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 11:31								**T-02**
QC Source Sample: MW6 (A0J0198-06)												
Chloromethane	0.0212	---	0.00500	mg/L	1	0.0200	ND	106	50 - 139%	---	---	
2-Chlorotoluene	0.0205	---	0.00100	mg/L	1	0.0200	ND	102	79 - 122%	---	---	
4-Chlorotoluene	0.0185	---	0.00100	mg/L	1	0.0200	ND	92	78 - 122%	---	---	
Dibromochloromethane	0.0236	---	0.00100	mg/L	1	0.0200	ND	118	74 - 126%	---	---	Q-54b
1,2-Dibromo-3-chloropropane	0.0201	---	0.00500	mg/L	1	0.0200	ND	101	62 - 128%	---	---	
1,2-Dibromoethane (EDB)	0.0203	---	0.000500	mg/L	1	0.0200	ND	102	77 - 121%	---	---	
Dibromomethane	0.0228	---	0.00100	mg/L	1	0.0200	ND	114	79 - 123%	---	---	
1,2-Dichlorobenzene	0.0203	---	0.000500	mg/L	1	0.0200	ND	102	80 - 120%	---	---	
1,3-Dichlorobenzene	0.0200	---	0.000500	mg/L	1	0.0200	ND	100	80 - 120%	---	---	
1,4-Dichlorobenzene	0.0200	---	0.000500	mg/L	1	0.0200	ND	100	79 - 120%	---	---	
Dichlorodifluoromethane	0.0201	---	0.00100	mg/L	1	0.0200	ND	100	32 - 152%	---	---	
1,1-Dichloroethane	0.0203	---	0.000400	mg/L	1	0.0200	ND	102	77 - 125%	---	---	
1,2-Dichloroethane (EDC)	0.0203	---	0.000400	mg/L	1	0.0200	ND	101	73 - 128%	---	---	
1,1-Dichloroethene	0.0217	---	0.000400	mg/L	1	0.0200	ND	109	71 - 131%	---	---	
cis-1,2-Dichloroethene	0.0214	---	0.000400	mg/L	1	0.0200	0.000401	105	78 - 123%	---	---	
trans-1,2-Dichloroethene	0.0211	---	0.000400	mg/L	1	0.0200	ND	105	75 - 124%	---	---	
1,2-Dichloropropane	0.0205	---	0.000500	mg/L	1	0.0200	ND	103	78 - 122%	---	---	
1,3-Dichloropropane	0.0200	---	0.00100	mg/L	1	0.0200	ND	100	80 - 120%	---	---	
2,2-Dichloropropane	0.0153	---	0.00100	mg/L	1	0.0200	ND	77	60 - 139%	---	---	
1,1-Dichloropropene	0.0206	---	0.00100	mg/L	1	0.0200	ND	103	79 - 125%	---	---	
cis-1,3-Dichloropropene	0.0169	---	0.00100	mg/L	1	0.0200	ND	85	75 - 124%	---	---	
trans-1,3-Dichloropropene	0.0173	---	0.00100	mg/L	1	0.0200	ND	86	73 - 127%	---	---	
Ethylbenzene	0.0196	---	0.000500	mg/L	1	0.0200	ND	98	79 - 121%	---	---	
Hexachlorobutadiene	0.0191	---	0.00500	mg/L	1	0.0200	ND	96	66 - 134%	---	---	
2-Hexanone	0.0367	---	0.0100	mg/L	1	0.0400	ND	92	57 - 139%	---	---	
Isopropylbenzene	0.0196	---	0.00100	mg/L	1	0.0200	ND	98	72 - 131%	---	---	
4-Isopropyltoluene	0.0190	---	0.00100	mg/L	1	0.0200	ND	95	77 - 127%	---	---	
Methylene chloride	0.0207	---	0.0100	mg/L	1	0.0200	ND	104	74 - 124%	---	---	
4-Methyl-2-pentanone (MiBK)	0.0357	---	0.0100	mg/L	1	0.0400	ND	89	67 - 130%	---	---	
Methyl tert-butyl ether (MTBE)	0.0169	---	0.00100	mg/L	1	0.0200	ND	84	71 - 124%	---	---	
Naphthalene	0.0157	---	0.00200	mg/L	1	0.0200	ND	79	61 - 128%	---	---	
n-Propylbenzene	0.0190	---	0.000500	mg/L	1	0.0200	ND	95	76 - 126%	---	---	
Styrene	0.0190	---	0.00100	mg/L	1	0.0200	ND	95	78 - 123%	---	---	

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Kevin J. Friscia, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100252 - EPA 5030B							**Water**					
Matrix Spike (0100252-MS1)		Prepared: 10/07/20 23:31		Analyzed: 10/08/20 11:31								**T-02**
QC Source Sample: MW6 (A0J0198-06)												
1,1,1,2-Tetrachloroethane	0.0223	---	0.000400	mg/L	1	0.0200	ND	112	78 - 124%	---	---	
1,1,2,2-Tetrachloroethane	0.0211	---	0.000500	mg/L	1	0.0200	ND	106	71 - 121%	---	---	
Tetrachloroethene (PCE)	0.0215	---	0.000400	mg/L	1	0.0200	0.000698	104	74 - 129%	---	---	
Toluene	0.0192	---	0.00100	mg/L	1	0.0200	ND	96	80 - 121%	---	---	
1,2,3-Trichlorobenzene	0.0173	---	0.00200	mg/L	1	0.0200	ND	87	69 - 129%	---	---	
1,2,4-Trichlorobenzene	0.0168	---	0.00200	mg/L	1	0.0200	ND	84	69 - 130%	---	---	
1,1,1-Trichloroethane	0.0214	---	0.000400	mg/L	1	0.0200	ND	107	74 - 131%	---	---	
1,1,2-Trichloroethane	0.0210	---	0.000500	mg/L	1	0.0200	ND	105	80 - 120%	---	---	
Trichloroethene (TCE)	0.0235	---	0.000400	mg/L	1	0.0200	ND	117	79 - 123%	---	---	
Trichlorofluoromethane	0.0293	---	0.00200	mg/L	1	0.0200	ND	**146**	**65 - 141%**	---	---	Q-54
1,2,3-Trichloropropane	0.0207	---	0.00100	mg/L	1	0.0200	ND	103	73 - 122%	---	---	
1,2,4-Trimethylbenzene	0.0200	---	0.00100	mg/L	1	0.0200	ND	100	76 - 124%	---	---	
1,3,5-Trimethylbenzene	0.0198	---	0.00100	mg/L	1	0.0200	ND	99	75 - 124%	---	---	
Vinyl chloride	0.0220	---	0.000400	mg/L	1	0.0200	ND	110	58 - 137%	---	---	
m,p-Xylene	0.0389	---	0.00100	mg/L	1	0.0400	ND	97	80 - 121%	---	---	
o-Xylene	0.0184	---	0.000500	mg/L	1	0.0200	ND	92	78 - 122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*95 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*			*"*					

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100253 - EPA 5030B							**Water**					
Blank (0100253-BLK1)		Prepared: 10/08/20 07:45		Analyzed: 10/08/20 09:56								
EPA 8260D												
Acetone	ND	---	0.0200	mg/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
Benzene	ND	---	0.000200	mg/L	1	---	---	---	---	---	---	
Bromobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Bromoform	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
Bromomethane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Chloroethane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
Chloroform	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Chloromethane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Dibromomethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100253 - EPA 5030B							**Water**					
Blank (0100253-BLK1)		Prepared: 10/08/20 07:45		Analyzed: 10/08/20 09:56								
1,2-Dichloropropane	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.00500	mg/L	1	---	---	---	---	---	---	
2-Hexanone	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Methylene chloride	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	0.0100	mg/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Styrene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
Toluene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	0.00200	mg/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.000400	mg/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	---	0.00100	mg/L	1	---	---	---	---	---	---	
o-Xylene	ND	---	0.000500	mg/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*				*Dilution: 1x*				

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Kevin J. Friscia, Project Manager

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Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100253 - EPA 5030B												**Water**
Blank (0100253-BLK1)			Prepared: 10/08/20 07:45 Analyzed: 10/08/20 09:56									
Surr: Toluene-d8 (Surr)			*Recovery: 100 %*	*Limits: 80-120 %*					*Dilution: 1x*			
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*					*"*			
LCS (0100253-BS1)			Prepared: 10/08/20 07:45 Analyzed: 10/08/20 09:01									
EPA 8260D												
Acetone	0.0384	---	0.0200	mg/L	1	0.0400	---	96	80 - 120%	---	---	
Acrylonitrile	0.0204	---	0.00200	mg/L	1	0.0200	---	102	80 - 120%	---	---	
Benzene	0.0196	---	0.000200	mg/L	1	0.0200	---	98	80 - 120%	---	---	
Bromobenzene	0.0196	---	0.000500	mg/L	1	0.0200	---	98	80 - 120%	---	---	
Bromochloromethane	0.0212	---	0.00100	mg/L	1	0.0200	---	106	80 - 120%	---	---	
Bromodichloromethane	0.0208	---	0.00100	mg/L	1	0.0200	---	104	80 - 120%	---	---	
Bromoform	0.0190	---	0.00200	mg/L	1	0.0200	---	95	80 - 120%	---	---	
Bromomethane	0.0230	---	0.00500	mg/L	1	0.0200	---	115	80 - 120%	---	---	
2-Butanone (MEK)	0.0421	---	0.0100	mg/L	1	0.0400	---	105	80 - 120%	---	---	
n-Butylbenzene	0.0219	---	0.00100	mg/L	1	0.0200	---	110	80 - 120%	---	---	
sec-Butylbenzene	0.0211	---	0.00100	mg/L	1	0.0200	---	106	80 - 120%	---	---	
tert-Butylbenzene	0.0206	---	0.00100	mg/L	1	0.0200	---	103	80 - 120%	---	---	
Carbon disulfide	0.0176	---	0.0100	mg/L	1	0.0200	---	88	80 - 120%	---	---	
Carbon tetrachloride	0.0193	---	0.00100	mg/L	1	0.0200	---	97	80 - 120%	---	---	
Chlorobenzene	0.0190	---	0.000500	mg/L	1	0.0200	---	95	80 - 120%	---	---	
Chloroethane	0.0221	---	0.00500	mg/L	1	0.0200	---	110	80 - 120%	---	---	
Chloroform	0.0200	---	0.00100	mg/L	1	0.0200	---	100	80 - 120%	---	---	
Chloromethane	0.0191	---	0.00500	mg/L	1	0.0200	---	96	80 - 120%	---	---	
2-Chlorotoluene	0.0208	---	0.00100	mg/L	1	0.0200	---	104	80 - 120%	---	---	
4-Chlorotoluene	0.0204	---	0.00100	mg/L	1	0.0200	---	102	80 - 120%	---	---	
Dibromochloromethane	0.0176	---	0.00100	mg/L	1	0.0200	---	88	80 - 120%	---	---	
1,2-Dibromo-3-chloropropane	0.0190	---	0.00500	mg/L	1	0.0200	---	95	80 - 120%	---	---	
1,2-Dibromoethane (EDB)	0.0215	---	0.000500	mg/L	1	0.0200	---	108	80 - 120%	---	---	
Dibromomethane	0.0212	---	0.00100	mg/L	1	0.0200	---	106	80 - 120%	---	---	
1,2-Dichlorobenzene	0.0196	---	0.000500	mg/L	1	0.0200	---	98	80 - 120%	---	---	
1,3-Dichlorobenzene	0.0197	---	0.000500	mg/L	1	0.0200	---	98	80 - 120%	---	---	
1,4-Dichlorobenzene	0.0196	---	0.000500	mg/L	1	0.0200	---	98	80 - 120%	---	---	
Dichlorodifluoromethane	0.0185	---	0.00100	mg/L	1	0.0200	---	93	80 - 120%	---	---	
1,1-Dichloroethane	0.0203	---	0.000400	mg/L	1	0.0200	---	101	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

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ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100253 - EPA 5030B							**Water**					
LCS (0100253-BS1)		Prepared: 10/08/20 07:45			Analyzed: 10/08/20 09:01							
1,2-Dichloroethane (EDC)	0.0200	---	0.000400	mg/L	1	0.0200	---	100	80 - 120%	---	---	
1,1-Dichloroethene	0.0191	---	0.000400	mg/L	1	0.0200	---	95	80 - 120%	---	---	
cis-1,2-Dichloroethene	0.0204	---	0.000400	mg/L	1	0.0200	---	102	80 - 120%	---	---	
trans-1,2-Dichloroethene	0.0202	---	0.000400	mg/L	1	0.0200	---	101	80 - 120%	---	---	
1,2-Dichloropropane	0.0202	---	0.000500	mg/L	1	0.0200	---	101	80 - 120%	---	---	
1,3-Dichloropropane	0.0212	---	0.00100	mg/L	1	0.0200	---	106	80 - 120%	---	---	
2,2-Dichloropropane	0.0209	---	0.00100	mg/L	1	0.0200	---	105	80 - 120%	---	---	
1,1-Dichloropropene	0.0191	---	0.00100	mg/L	1	0.0200	---	96	80 - 120%	---	---	
cis-1,3-Dichloropropene	0.0226	---	0.00100	mg/L	1	0.0200	---	113	80 - 120%	---	---	
trans-1,3-Dichloropropene	0.0188	---	0.00100	mg/L	1	0.0200	---	94	80 - 120%	---	---	
Ethylbenzene	0.0202	---	0.000500	mg/L	1	0.0200	---	101	80 - 120%	---	---	
Hexachlorobutadiene	0.0192	---	0.00500	mg/L	1	0.0200	---	96	80 - 120%	---	---	
2-Hexanone	0.0363	---	0.0100	mg/L	1	0.0400	---	91	80 - 120%	---	---	
Isopropylbenzene	0.0214	---	0.00100	mg/L	1	0.0200	---	107	80 - 120%	---	---	
4-Isopropyltoluene	0.0214	---	0.00100	mg/L	1	0.0200	---	107	80 - 120%	---	---	
Methylene chloride	0.0205	---	0.0100	mg/L	1	0.0200	---	103	80 - 120%	---	---	
4-Methyl-2-pentanone (MiBK)	0.0394	---	0.0100	mg/L	1	0.0400	---	98	80 - 120%	---	---	
Methyl tert-butyl ether (MTBE)	0.0203	---	0.00100	mg/L	1	0.0200	---	102	80 - 120%	---	---	
Naphthalene	0.0205	---	0.00200	mg/L	1	0.0200	---	102	80 - 120%	---	---	
n-Propylbenzene	0.0206	---	0.000500	mg/L	1	0.0200	---	103	80 - 120%	---	---	
Styrene	0.0223	---	0.00100	mg/L	1	0.0200	---	112	80 - 120%	---	---	
1,1,1,2-Tetrachloroethane	0.0223	---	0.000400	mg/L	1	0.0200	---	112	80 - 120%	---	---	
1,1,2,2-Tetrachloroethane	0.0211	---	0.000500	mg/L	1	0.0200	---	106	80 - 120%	---	---	
Tetrachloroethene (PCE)	0.0192	---	0.000400	mg/L	1	0.0200	---	96	80 - 120%	---	---	
Toluene	0.0193	---	0.00100	mg/L	1	0.0200	---	97	80 - 120%	---	---	
1,2,3-Trichlorobenzene	0.0195	---	0.00200	mg/L	1	0.0200	---	97	80 - 120%	---	---	
1,2,4-Trichlorobenzene	0.0197	---	0.00200	mg/L	1	0.0200	---	99	80 - 120%	---	---	
1,1,1-Trichloroethane	0.0199	---	0.000400	mg/L	1	0.0200	---	100	80 - 120%	---	---	
1,1,2-Trichloroethane	0.0205	---	0.000500	mg/L	1	0.0200	---	103	80 - 120%	---	---	
Trichloroethene (TCE)	0.0188	---	0.000400	mg/L	1	0.0200	---	94	80 - 120%	---	---	
Trichlorofluoromethane	0.0192	---	0.00200	mg/L	1	0.0200	---	96	80 - 120%	---	---	
1,2,3-Trichloropropane	0.0207	---	0.00100	mg/L	1	0.0200	---	104	80 - 120%	---	---	
1,2,4-Trimethylbenzene	0.0218	---	0.00100	mg/L	1	0.0200	---	109	80 - 120%	---	---	
1,3,5-Trimethylbenzene	0.0216	---	0.00100	mg/L	1	0.0200	---	108	80 - 120%	---	---	

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Kevin J. Friscia, Project Manager

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ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100253 - EPA 5030B												**Water**
LCS (0100253-BS1)		Prepared: 10/08/20 07:45		Analyzed: 10/08/20 09:01								
Vinyl chloride	0.0191	---	0.000400	mg/L	1	0.0200	---	95	80 - 120%	---	---	
m,p-Xylene	0.0416	---	0.00100	mg/L	1	0.0400	---	104	80 - 120%	---	---	
o-Xylene	0.0208	---	0.000500	mg/L	1	0.0200	---	104	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*101 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*				*"*			

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0100252							
A0J0198-01	Water	NWTPH-Gx (MS)	10/06/20 09:50	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-02	Water	NWTPH-Gx (MS)	10/06/20 10:47	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-03	Water	NWTPH-Gx (MS)	10/06/20 10:35	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-04	Water	NWTPH-Gx (MS)	10/06/20 08:50	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-05	Water	NWTPH-Gx (MS)	10/06/20 09:41	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-06	Water	NWTPH-Gx (MS)	10/06/20 11:10	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0100252							
A0J0198-01	Water	EPA 8260D	10/06/20 09:50	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-02	Water	EPA 8260D	10/06/20 10:47	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-03	Water	EPA 8260D	10/06/20 10:35	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-04	Water	EPA 8260D	10/06/20 08:50	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-05	Water	EPA 8260D	10/06/20 09:41	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
A0J0198-06	Water	EPA 8260D	10/06/20 11:10	10/07/20 23:31	5mL/5mL	5mL/5mL	1.00
Batch: 0100253							
A0J0198-06RE1	Water	EPA 8260D	10/06/20 11:10	10/08/20 12:36	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

Kevin J. Friscia, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

EST	Result reported as an Estimated Value. Result estimated. Initial Calibration Verification Standard (ICV) failed low
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. The results are reported as Estimated Values.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
T-02	This Batch QC sample was analyzed outside of the method specified 12 hour analysis window. Results are estimated.

Apex Laboratories

Kevin J. Friscia, Project Manager

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10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

Kevin J. Friscia, Project Manager

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Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Kevin J. Friscia, Project Manager

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ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation)
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Kevin J. Friscia, Project Manager

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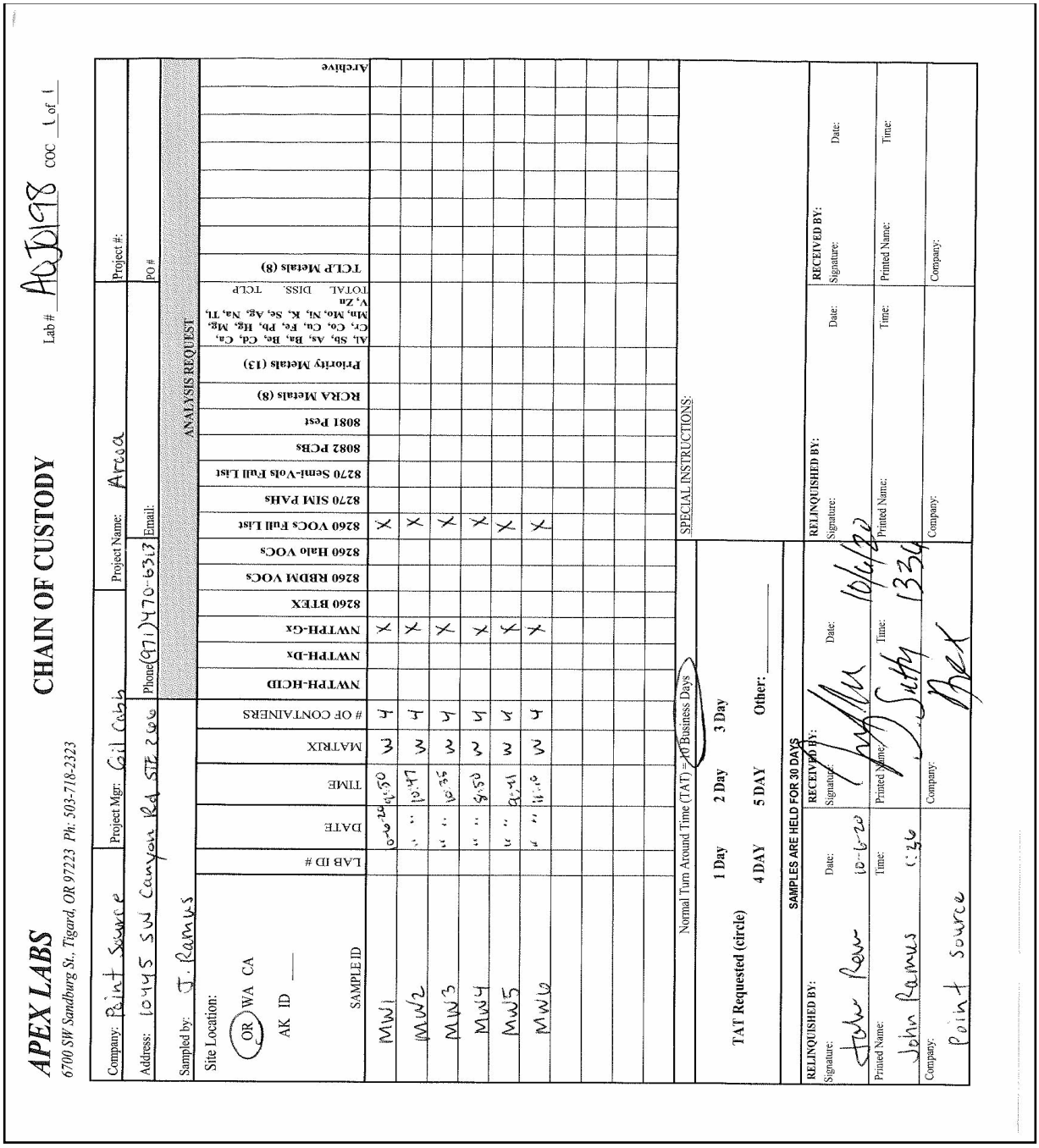

APEX LABS — 6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A0J0198 COC 1 of 1

Company: Point Source — Project Mgr: Gil Cobb — Phone: (971) 470-6317 — Project Name: Arcoa — Project #:
Address: 10445 SW Canyon Rd Ste 200 — Email: — PO #
Sampled by: J. Ramus

Site Location: (OR) WA CA — AK ID ___

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pest	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Archive
MW1		10-25-20	1150	W	4			X				X									
MW2		"	1247	W	4			X				X									
MW3		"	1351	W	4			X				X									
MW4		"	1451	W	4			X				X									
MW5		"	1551	W	4			X				X									
MW6		"	1651	W	4			X				X									

SPECIAL INSTRUCTIONS:

Normal Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day — 2 Day — 3 Day — 4 DAY — 5 DAY — Other: ___

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 10-26-20	Date:	Date: 10/26/20	Date:
Printed Name: John Ramus	Printed Name:	Printed Name:	Printed Name:
Time: 1536	Time:	Time: 1334	Time:
Company: Point Source	Company:	Company:	Company:

Apex Laboratories

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Kevin J. Friscia, Project Manager

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

Point Source Solutions, LLC	Project: **Arcoa Building**	
10445 SW Canyon Road Suite 115	Project Number: **[none]**	**Report ID:**
Beaverton, OR 97005	Project Manager: **Gil Cobb**	**A0J0198 - 10 26 20 0927**

APEX LABS COOLER RECEIPT FORM

Client: Point Source Element WO#: A0 J0198

Project/Project #: Arcoa

Delivery Info:

Date/time received: 10/6/20 @ 1336 By: JS

Delivered by: Apex___ Client X ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other_____

Cooler Inspection Date/time inspected: 10/6/20 @ 1336 By: JS

Chain of Custody included? Yes X No ___ Custody seals? Yes_____ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	5.8						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Gel						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 10/7/20 @ 1142 By: JS

All samples intact? Yes X No ___ Comments:

Bottle labels/COCs agree? Yes ___ No X Comments: 2/4 VOAs for MW2 labels read MW2 4 & MW2 3, matched by ID on lid of cont.

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments:

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X

Comments:

Additional information: No T/D on all cont. on all Samples.

Labeled by: JS Witness: [illegible] Cooler Inspected by: Client See Project Contact Form: Y

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 28, 2017

Andy Klopfenstein, Project Manager
Point Source Solutions
10445 SW Canyon Rd., Ste. 115
Beaverton, OR 97005

Dear Mr. Klopfenstein:

Included are the results from the testing of material submitted on March 15, 2017 from the 1024 SE Grand Ave OR161206-3C, F&BI 703265 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
PSS0328R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 15, 2017 by Friedman & Bruya, Inc. from the Point Source Solutions 1024 SE Grand Ave OR161206-3C, F&BI 703265 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
703265 -01	SS2

The sample did not contain of peaks indicating the presence of a Stoddard solvent range product.

The TO-15 gasoline range concentrations were quantified using a single point calibration at 200 ppbv.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SS2	Client:	Point Source Solutions
Date Received:	03/15/17	Project:	1024 SE Grand Ave OR161206-3C
Date Collected:	03/14/17	Lab ID:	703265-01 1/5
Date Analyzed:	03/17/17	Data File:	031717.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Chlorodifluoromethane	<1.8	<0.5	1-Butanol	<30	<10
Propene	<3.4	<2	Carbon tetrachloride	<3.1	<0.5
Dichlorodifluoromethane	<2.5	<0.5	Benzene	<1.6	<0.5
Chloromethane	<1	<0.5	Cyclohexane	<34	<10
F-114	<3.5	<0.5	2-Pentanone	<18	<5
Isobutene	<4.6	<2	3-Pentanone	<18	<5
Acetaldehyde	<45	<25	Pentanal	<18	<5
Vinyl chloride	<1.3	<0.5	1,2-Dichloropropane	<2.3	<0.5
1,3-Butadiene	<1.1	<0.5	1,4-Dioxane	<1.8	<0.5
Bromomethane	<1.9	<0.5	Bromodichloromethane	<3.4	<0.5
Chloroethane	<1.3	<0.5	Trichloroethene	<2.7	<0.5
Ethanol	210	110	cis-1,3-Dichloropropene	<2.3	<0.5
Acetonitrile	<8.4	<5	4-Methyl-2-pentanone	<20	<5
Acrolein	<4.6	<2	trans-1,3-Dichloropropene	<2.3	<0.5
Acrylonitrile	<1.1 ca	<0.5 ca	Toluene	5.2	1.4
Pentane	<15 ca	<5 ca	1,1,2-Trichloroethane	<2.7	<0.5
Trichlorofluoromethane	<2.8	<0.5	3-Hexanone	<20	<5
Acetone	97	41	2-Hexanone	<20	<5
2-Propanol	<43	<17	Hexanal	<20	<5
Isoprene	<1.4	<0.5	Tetrachloroethene	23	3.4
Iodomethane	<2.9	<0.5	Dibromochloromethane	<4.3	<0.5
1,1-Dichloroethene	<2	<0.5	1,2-Dibromoethane (EDB)	<3.8	<0.5
Methacrolein	<14	<5	Chlorobenzene	<2.3	<0.5
trans-1,2-Dichloroethene	<2	<0.5	Ethylbenzene	<2.2	<0.5
Cyclopentane	<1.4 ca	<0.5 ca	1,1,2,2-Tetrachloroethane	<3.4	<0.5
Methyl vinyl ketone	<5.7	<2	m,p-Xylene	7.6	1.8
Butanal	<15	<5	o-Xylene	4.1	0.95
Methylene chloride	<430	<120	Styrene	<4.3	<1
CFC-113	<3.8	<0.5	Bromoform	<10	<1
Carbon disulfide	<31	<10	Benzyl chloride	<2.6	<0.5
Methyl t-butyl ether	<1.8	<0.5	1,3,5-Trimethylbenzene	<12	<2.5
Vinyl acetate	<35 ca	<10 ca	1,2,4-Trimethylbenzene	<12	<2.5
1,1-Dichloroethane	<2	<0.5	1,3-Dichlorobenzene	<6	<1
cis-1,2-Dichloroethene	<2	<0.5	1,4-Dichlorobenzene	<3	<0.5
Hexane	<18	<5	1,2,3-Trimethylbenzene	<12	<2.5
Chloroform	<2.4	<0.5	1,2-Dichlorobenzene	<6	<1
2-Butanone (MEK)	<15	<5	1,2,4-Trichlorobenzene	<3.7	<0.5
1,2-Dichloroethane (EDC)	<2	<0.5	Naphthalene	2.6	0.50
1,1,1-Trichloroethane	<2.7	<0.5	Hexachlorobutadiene	<5.3	<0.5
Gasoline Range Organics	<2,100	<500			

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	1024 SE Grand Ave OR161206-3C
Date Collected:	Not Applicable	Lab ID:	07-536 mb
Date Analyzed:	03/16/17	Data File:	031607.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Chlorodifluoromethane	<0.35	<0.1	1-Butanol	<6.1	<2
Propene	<0.69	<0.4	Carbon tetrachloride	<0.63	<0.1
Dichlorodifluoromethane	<0.49	<0.1	Benzene	<0.32	<0.1
Chloromethane	<0.21	<0.1	Cyclohexane	<6.9	<2
F-114	<0.7	<0.1	2-Pentanone	<3.5	<1
Isobutene	<0.92	<0.4	3-Pentanone	<3.5	<1
Acetaldehyde	<9	<5	Pentanal	<3.5	<1
Vinyl chloride	<0.26	<0.1	1,2-Dichloropropane	<0.46	<0.1
1,3-Butadiene	<0.22	<0.1	1,4-Dioxane	<0.36	<0.1
Bromomethane	<0.39	<0.1	Bromodichloromethane	<0.67	<0.1
Chloroethane	<0.26	<0.1	Trichloroethene	<0.54	<0.1
Ethanol	<7.5	<4	cis-1,3-Dichloropropene	<0.45	<0.1
Acetonitrile	<1.7	<1	4-Methyl-2-pentanone	<4.1	<1
Acrolein	<0.92	<0.4	trans-1,3-Dichloropropene	<0.45	<0.1
Acrylonitrile	<0.22	<0.1	Toluene	<0.38	<0.1
Pentane	<3 ca	<1 ca	1,1,2-Trichloroethane	<0.55	<0.1
Trichlorofluoromethane	<0.56	<0.1	3-Hexanone	<4.1	<1
Acetone	<4.8	<2	2-Hexanone	<4.1	<1
2-Propanol	<8.6	<3.5	Hexanal	<4.1	<1
Isoprene	<0.28	<0.1	Tetrachloroethene	<0.68	<0.1
Iodomethane	<0.58	<0.1	Dibromochloromethane	<0.85	<0.1
1,1-Dichloroethene	<0.4	<0.1	1,2-Dibromoethane (EDB)	<0.77	<0.1
Methacrolein	<2.9	<1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Cyclopentane	<0.29	<0.1	1,1,2,2-Tetrachloroethane	<0.69	<0.1
Methyl vinyl ketone	<1.1	<0.4	m,p-Xylene	<0.87	<0.2
Butanal	<2.9	<1	o-Xylene	<0.43	<0.1
Methylene chloride	<87	<25	Styrene	<0.85	<0.2
CFC-113	<0.77	<0.1	Bromoform	<2.1	<0.2
Carbon disulfide	<6.2	<2	Benzyl chloride	<0.52	<0.1
Methyl t-butyl ether	<0.36	<0.1	1,3,5-Trimethylbenzene	<2.5	<0.5
Vinyl acetate	<7	<2	1,2,4-Trimethylbenzene	<2.5	<0.5
1,1-Dichloroethane	<0.4	<0.1	1,3-Dichlorobenzene	<1.2	<0.2
cis-1,2-Dichloroethene	<0.4	<0.1	1,4-Dichlorobenzene	<0.6	<0.1
Hexane	<3.5	<1	1,2,3-Trimethylbenzene	<2.5	<0.5
Chloroform	<0.49	<0.1	1,2-Dichlorobenzene	<1.2	<0.2
2-Butanone (MEK)	<2.9	<1	1,2,4-Trichlorobenzene	<0.74	<0.1
1,2-Dichloroethane (EDC)	<0.4	<0.1	Naphthalene	<0.52	<0.1
1,1,1-Trichloroethane	<0.55	<0.1	Hexachlorobutadiene	<1.1	<0.1
Gasoline Range Organics	<410	<100			

Date of Report: 03/28/17
Date Received: 03/15/17
Project: 1024 SE Grand Ave OR161206-3C, F&BI 703265

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chlorodifluoromethane	ppbv	10	94	70-130
Propene	ppbv	10	78	70-130
Dichlorodifluoromethane	ppbv	10	93	70-130
Chloromethane	ppbv	10	94	70-130
F-114	ppbv	10	103	70-130
Isobutene	ppbv	10	93	70-130
Acetaldehyde	ppbv	10	94	70-130
Vinyl chloride	ppbv	10	100	70-130
1,3-Butadiene	ppbv	10	98	70-130
Bromomethane	ppbv	10	104	70-130
Chloroethane	ppbv	10	99	70-130
Ethanol	ppbv	10	101	70-130
Acetonitrile	ppbv	10	95	70-130
Acrolein	ppbv	10	95	70-130
Acrylonitrile	ppbv	10	71	70-130
Pentane	ppbv	10	69 vo	70-130
Trichlorofluoromethane	ppbv	10	103	70-130
Acetone	ppbv	10	97	70-130
2-Propanol	ppbv	10	99	70-130
Isoprene	ppbv	10	87	70-130
Iodomethane	ppbv	10	94	70-130
1,1-Dichloroethene	ppbv	10	91	70-130
Methacrolein	ppbv	10	84	70-130
trans-1,2-Dichloroethene	ppbv	10	92	70-130
Cyclopentane	ppbv	10	74	70-130
Methyl Vinyl Ketone	ppbv	10	100	70-130
Butanal	ppbv	10	91	70-130
Methylene chloride	ppbv	10	92	70-130
CFC-113	ppbv	10	95	70-130
Carbon disulfide	ppbv	10	91	70-130
Methyl t-butyl ether	ppbv	10	84	70-130
Vinyl acetate	ppbv	10	70	70-130
1,1-Dichloroethane	ppbv	10	88	70-130
cis-1,2-Dichloroethene	ppbv	10	88	70-130
Hexane	ppbv	10	84	70-130
Chloroform	ppbv	10	90	70-130
2-Butanone (MEK)	ppbv	10	90	70-130
1,2-Dichloroethane (EDC)	ppbv	10	86	70-130
1,1,1-Trichloroethane	ppbv	10	84	70-130
1-Butanol	ppbv	10	80	70-130
Carbon tetrachloride	ppbv	10	86	70-130

Date of Report: 03/28/17
Date Received: 03/15/17
Project: 1024 SE Grand Ave OR161206-3C, F&BI 703265

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ppbv	10	88	70-130
Cyclohexane	ppbv	10	83	70-130
2-Pentanone	ppbv	10	93	70-130
3-Pentanone	ppbv	10	93	70-130
Pentanal	ppbv	10	85	70-130
1,2-Dichloropropane	ppbv	10	94	70-130
1,4-Dioxane	ppbv	10	103	70-130
Bromodichloromethane	ppbv	10	95	70-130
Trichloroethene	ppbv	10	95	70-130
cis-1,3-Dichloropropene	ppbv	10	87	70-130
4-Methyl-2-pentanone	ppbv	10	96	70-130
trans-1,3-Dichloropropene	ppbv	10	88	70-130
Toluene	ppbv	10	94	70-130
1,1,2-Trichloroethane	ppbv	10	102	70-130
3-Hexanone	ppbv	10	94	70-130
2-Hexanone	ppbv	10	94	70-130
Hexanal	ppbv	10	89	70-130
Tetrachloroethene	ppbv	10	98	70-130
Dibromochloromethane	ppbv	10	104	70-130
1,2-Dibromoethane (EDB)	ppbv	10	101	70-130
Chlorobenzene	ppbv	10	99	70-130
Ethylbenzene	ppbv	10	97	70-130
1,1,2,2,-Tetrachloroethane	ppbv	10	100	70-130
m,p-Xylene	ppbv	20	97	70-130
o-Xylene	ppbv	10	96	70-130
Styrene	ppbv	10	94	70-130
Bromoform	ppbv	10	101	70-130
Benzyl chloride	ppbv	10	83	70-130
1,3,5-Trimethylbenzene	ppbv	10	96	70-130
1,2,4-Trimethylbenzene	ppbv	10	98	70-130
1,3-Dichlorobenzene	ppbv	10	100	70-130
1,4-Dichlorobenzene	ppbv	10	98	70-130
1,2,3-Trimethylbenzene	ppbv	10	97	70-130
1,2-Dichlorobenzene	ppbv	10	100	70-130
1,2,4-Trichlorobenzene	ppbv	10	83	70-130
Naphthalene	ppbv	10	84	70-130
Hexachlorobutadiene	ppbv	10	89	70-130
Gasoline Range Organics	ppbv	10	97	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

703265

SAMPLE CHAIN OF CUSTODY

ME 03/15/17

Page # 1 of 1

Report To Andy Klopfenstein
Company Point Source Solutions
Address 10445 SW Canyon Rd Ste 115
City, State, ZIP Beaverton, OR 97005
Phone 503-780-1569 Email Andy@pointsourcesolutions.com

SAMPLERS (*signature*)

PROJECT NAME	PO #
1024 SE Grand Ave	OR16120-3C
REMARKS pe AK 3/14/17 AS	INVOICE TO

TURNAROUND TIME
☐ Standard
☒ RUSH 5 day
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Archive Samples
☐ Other

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	6x 1,2 DCA	Notes
SS2	01	2294	FB106	3/14/17	29.5	10:06	5	10:12	X			X	need standard solvents
													Samples received at 20c

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:				
Received by:	Khan Phan	FcBT	3/15/17	1400
Relinquished by:				
Received by:				

FORMS\COC\COCTO-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 7, 2020

Andy Klopfenstein, Project Manager
Point Source Solutions
10445 SW Canyon Rd., Ste. 115
Beaverton, OR 97005

Dear Mr Klopfenstein:

Included are the results from the testing of material submitted on December 18, 2019 from the Arcoa Building, F&BI 912331 project. There are 10 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
PSS0107R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 18, 2019 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 912331 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
912331 -01	SV1
912331 -02	SS1

Several APH ranges and TO-15 compounds exceeded the calibration range in sample SV1. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV1	Client:	Point Source Solutions
Date Received:	12/18/19	Project:	Arcoa Building, F&BI 912331
Date Collected:	12/17/19	Lab ID:	912331-01 1/38
Date Analyzed:	12/31/19	Data File:	123046.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	440,000 ve
APH EC9-12 aliphatics	770,000 ve
APH EC9-10 aromatics	46,000 ve

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 912331
Date Collected:	Not Applicable	Lab ID:	09-3151 mb
Date Analyzed:	12/31/19	Data File:	123030.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<46
APH EC9-12 aliphatics	<35
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV1	Client:	Point Source Solutions
Date Received:	12/18/19	Project:	Arcoa Building, F&BI 912331
Date Collected:	12/17/19	Lab ID:	912331-01 1/38
Date Analyzed:	12/31/19	Data File:	123046.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	510	300	1,2-Dichloropropane	190	41
Dichlorodifluoromethane	<19	<3.8	1,4-Dioxane	<14	<3.8
Chloromethane	<78	<38	2,2,4-Trimethylpentane	<180	<38
F-114	<27	<3.8	Methyl methacrylate	<160	<38
Vinyl chloride	<9.7	<3.8	Heptane	<160	<38
1,3-Butadiene	33	15	Bromodichloromethane	<2.5	<0.38
Butane	<90	<38	Trichloroethene	220	41
Bromomethane	<59	<15	cis-1,3-Dichloropropene	<17	<3.8
Chloroethane	<100	<38	4-Methyl-2-pentanone	<160	<38
Vinyl bromide	<17	<3.8	trans-1,3-Dichloropropene	<17	<3.8
Ethanol	<290	<150	Toluene	<720	<190
Acrolein	<35	<15	1,1,2-Trichloroethane	<4.1	<0.76
Pentane	<110	<38	2-Hexanone	<160	<38
Trichlorofluoromethane	<85	<15	Tetrachloroethene	1,500	220
Acetone	<180	<76	Dibromochloromethane	<3.2	<0.38
2-Propanol	<330	<130	1,2-Dibromoethane (EDB)	<2.9	<0.38
1,1-Dichloroethene	<15	<3.8	Chlorobenzene	<17	<3.8
trans-1,2-Dichloroethene	<15	<3.8	Ethylbenzene	610	140
Methylene chloride	<3,300	<950	1,1,2,2-Tetrachloroethane	<5.2	<0.76
t-Butyl alcohol (TBA)	<460	<150	Nonane	37,000 ve	7,000 ve
3-Chloropropene	<48	<15	Isopropylbenzene	1,100	220
CFC-113	<29	<3.8	2-Chlorotoluene	<200	<38
Carbon disulfide	<240	<76	Propylbenzene	1,700	340
Methyl t-butyl ether (MTBE)	<69	<19	4-Ethyltoluene	6,400 ve	1,300 ve
Vinyl acetate	<270	<76	m,p-Xylene	1,200	280
1,1-Dichloroethane	<15	<3.8	o-Xylene	1,500	340
cis-1,2-Dichloroethene	<15	<3.8	Styrene	<32	<7.6
Hexane	<130	<38	Bromoform	<79	<7.6
Chloroform	<1.9	<0.38	Benzyl chloride	<2	<0.38
Ethyl acetate	<270	<76	1,3,5-Trimethylbenzene	8,400 ve	1,700 ve
Tetrahydrofuran	<11	<3.8	1,2,4-Trimethylbenzene	7,800 ve	1,600 ve
2-Butanone (MEK)	<110	<38	1,3-Dichlorobenzene	<23	<3.8
1,2-Dichloroethane (EDC)	<1.5	<0.38	1,4-Dichlorobenzene	<9.1	<1.5
1,1,1-Trichloroethane	<21	<3.8	1,2-Dichlorobenzene	<23	<3.8
Carbon tetrachloride	<24	<3.8	1,2,4-Trichlorobenzene	<28	<3.8
Benzene	240	76	Naphthalene	<10	<1.9
Cyclohexane	<260	<76	Hexachlorobutadiene	<8.1	<0.76
Gasoline Range Organics	1,500,000	360,000			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SS1	Client:	Point Source Solutions
Date Received:	12/18/19	Project:	Arcoa Building, F&BI 912331
Date Collected:	12/17/19	Lab ID:	912331-02 1/3.4
Date Analyzed:	12/31/19	Data File:	123052.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	103	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<2.3	<1.4	1,2-Dichloropropane	<0.79	<0.17
Dichlorodifluoromethane	2.4	0.49	1,4-Dioxane	<1.2	<0.34
Chloromethane	<7	<3.4	2,2,4-Trimethylpentane	<16	<3.4
F-114	<2.4	<0.34	Methyl methacrylate	<14	<3.4
Vinyl chloride	<0.87	<0.34	Heptane	<14	<3.4
1,3-Butadiene	<0.075	<0.034	Bromodichloromethane	<0.23	<0.034
Butane	<8.1	<3.4	Trichloroethene	3.6	0.68
Bromomethane	<5.3	<1.4	cis-1,3-Dichloropropene	<1.5	<0.34
Chloroethane	<9	<3.4	4-Methyl-2-pentanone	<14	<3.4
Vinyl bromide	<1.5	<0.34	trans-1,3-Dichloropropene	<1.5	<0.34
Ethanol	110	59	Toluene	<64	<17
Acrolein	<3.1	<1.4	1,1,2-Trichloroethane	<0.37	<0.068
Pentane	<10	<3.4	2-Hexanone	<14	<3.4
Trichlorofluoromethane	<7.6	<1.4	Tetrachloroethene	<23	<3.4
Acetone	44	18	Dibromochloromethane	<0.29	<0.034
2-Propanol	<29	<12	1,2-Dibromoethane (EDB)	<0.26	<0.034
1,1-Dichloroethene	<1.3	<0.34	Chlorobenzene	<1.6	<0.34
trans-1,2-Dichloroethene	<1.3	<0.34	Ethylbenzene	<1.5	<0.34
Methylene chloride	<300	<85	1,1,2,2-Tetrachloroethane	<0.47	<0.068
t-Butyl alcohol (TBA)	<41	<14	Nonane	<18	<3.4
3-Chloropropene	<4.3	<1.4	Isopropylbenzene	<8.4	<1.7
CFC-113	<2.6	<0.34	2-Chlorotoluene	<18	<3.4
Carbon disulfide	<21	<6.8	Propylbenzene	<8.4	<1.7
Methyl t-butyl ether (MTBE)	<6.1	<1.7	4-Ethyltoluene	<8.4	<1.7
Vinyl acetate	<24	<6.8	m,p-Xylene	3.2	0.73
1,1-Dichloroethane	<1.4	<0.34	o-Xylene	<1.5	<0.34
cis-1,2-Dichloroethene	<1.3	<0.34	Styrene	<2.9	<0.68
Hexane	<12	<3.4	Bromoform	<7	<0.68
Chloroform	14	2.9	Benzyl chloride	<0.18	<0.034
Ethyl acetate	<25	<6.8	1,3,5-Trimethylbenzene	<8.4	<1.7
Tetrahydrofuran	<1	<0.34	1,2,4-Trimethylbenzene	<8.4	<1.7
2-Butanone (MEK)	<10	<3.4	1,3-Dichlorobenzene	<2	<0.34
1,2-Dichloroethane (EDC)	0.15	0.037	1,4-Dichlorobenzene	<0.82	<0.14
1,1,1-Trichloroethane	<1.9	<0.34	1,2-Dichlorobenzene	<2	<0.34
Carbon tetrachloride	2.7	0.42	1,2,4-Trichlorobenzene	<2.5	<0.34
Benzene	<1.1	<0.34	Naphthalene	<0.89	<0.17
Cyclohexane	<23	<6.8	Hexachlorobutadiene	<0.73	<0.068
Gasoline Range Organics	<2,800	<6,800			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 912331
Date Collected:	Not Applicable	Lab ID:	09-3151 mb
Date Analyzed:	12/31/19	Data File:	123030.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	BAT

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<0.69	<0.4	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.49	<0.1	1,4-Dioxane	<0.36	<0.1
Chloromethane	<2.1	<1	2,2,4-Trimethylpentane	<4.7	<1
F-114	<0.7	<0.1	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.022	<0.01	Bromodichloromethane	<0.067	<0.01
Butane	<2.4	<1	Trichloroethene	<0.27	<0.05
Bromomethane	<1.6	<0.4	cis-1,3-Dichloropropene	<0.45	<0.1
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<4.1	<1
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<19	<5
Acrolein	<0.92	<0.4	1,1,2-Trichloroethane	<0.11	<0.02
Pentane	<3	<1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<87	<25	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<1.3	<0.4	Isopropylbenzene	<2.5	<0.5
CFC-113	<0.77	<0.1	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<2.5	<0.5
Methyl t-butyl ether (MTBE)	<1.8	<0.5	4-Ethyltoluene	<2.5	<0.5
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<2.5	<0.5
Tetrahydrofuran	<0.29	<0.1	1,2,4-Trimethylbenzene	<2.5	<0.5
2-Butanone (MEK)	<2.9	<1	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.24	<0.04
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.63	<0.1	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02
Gasoline Range Organics	<820	<200			

Date of Report: 01/07/20
Date Received: 12/18/19
Project: Arcoa Building, F&BI 912331

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 912417-09 1/2.9 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	3,400	3,500	3
APH EC9-12 aliphatics	ug/m3	1,300	1,400	7
APH EC9-10 aromatics	ug/m3	<72	<72	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	23	86	70-130
APH EC9-12 aliphatics	ug/m3	23	109	70-130
APH EC9-10 aromatics	ug/m3	23	99	70-130

Date of Report: 01/07/20
Date Received: 12/18/19
Project: Arcoa Building, F&BI 912331

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Propene	ppbv	5	98	70-130
Dichlorodifluoromethane	ppbv	5	103	70-130
Chloromethane	ppbv	5	94	70-130
F-114	ppbv	5	103	70-130
Vinyl chloride	ppbv	5	103	70-130
1,3-Butadiene	ppbv	5	112	70-130
Butane	ppbv	5	101	70-130
Bromomethane	ppbv	5	97	70-130
Chloroethane	ppbv	5	103	70-130
Ethanol	ppbv	5	104	70-130
Acrolein	ppbv	5	101	70-130
Pentane	ppbv	5	100	70-130
Trichlorofluoromethane	ppbv	5	101	70-130
Acetone	ppbv	5	95	70-130
2-Propanol	ppbv	5	103	70-130
1,1-Dichloroethene	ppbv	5	105	70-130
trans-1,2-Dichloroethene	ppbv	5	103	70-130
Methylene chloride	ppbv	5	90	70-130
t-Butyl alcohol (TBA)	ppbv	5	102	70-130
3-Chloropropene	ppbv	5	100	70-130
CFC-113	ppbv	5	102	70-130
Carbon disulfide	ppbv	5	97	70-130
Methyl t-butyl ether (MTBE)	ppbv	5	107	70-130
Vinyl acetate	ppbv	5	98	70-130
1,1-Dichloroethane	ppbv	5	99	70-130
cis-1,2-Dichloroethene	ppbv	5	104	70-130
Hexane	ppbv	5	116	70-130
Chloroform	ppbv	5	99	70-130
Ethyl acetate	ppbv	5	97	70-130
Tetrahydrofuran	ppbv	5	104	70-130
2-Butanone (MEK)	ppbv	5	100	70-130
1,2-Dichloroethane (EDC)	ppbv	5	103	70-130
1,1,1-Trichloroethane	ppbv	5	98	70-130
Carbon tetrachloride	ppbv	5	102	70-130
Benzene	ppbv	5	98	70-130
Cyclohexane	ppbv	5	98	70-130
1,2-Dichloropropane	ppbv	5	93	70-130
1,4-Dioxane	ppbv	5	94	70-130
2,2,4-Trimethylpentane	ppbv	5	100	70-130
Methyl methacrylate	ppbv	5	102	70-130

Date of Report: 01/07/20
Date Received: 12/18/19
Project: Arcoa Building, F&BI 912331

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Heptane	ppbv	5	106	70-130
Bromodichloromethane	ppbv	5	90	70-130
Trichloroethene	ppbv	5	92	70-130
cis-1,3-Dichloropropene	ppbv	5	99	70-130
4-Methyl-2-pentanone	ppbv	5	111	70-130
trans-1,3-Dichloropropene	ppbv	5	107	70-130
Toluene	ppbv	5	99	70-130
1,1,2-Trichloroethane	ppbv	5	96	70-130
2-Hexanone	ppbv	5	109	70-130
Tetrachloroethene	ppbv	5	91	70-130
Dibromochloromethane	ppbv	5	91	70-130
1,2-Dibromoethane (EDB)	ppbv	5	98	70-130
Chlorobenzene	ppbv	5	102	70-130
Ethylbenzene	ppbv	5	105	70-130
1,1,2,2-Tetrachloroethane	ppbv	5	92	70-130
Nonane	ppbv	5	119	70-130
Isopropylbenzene	ppbv	5	100	70-130
2-Chlorotoluene	ppbv	5	108	70-130
Propylbenzene	ppbv	5	106	70-130
4-Ethyltoluene	ppbv	5	123	70-130
m,p-Xylene	ppbv	10	108	70-130
o-Xylene	ppbv	5	105	70-130
Styrene	ppbv	5	113	70-130
Bromoform	ppbv	5	97	70-130
Benzyl chloride	ppbv	5	109	70-130
1,3,5-Trimethylbenzene	ppbv	5	113	70-130
1,2,4-Trimethylbenzene	ppbv	5	119	70-130
1,3-Dichlorobenzene	ppbv	5	107	70-130
1,4-Dichlorobenzene	ppbv	5	107	70-130
1,2-Dichlorobenzene	ppbv	5	99	70-130
1,2,4-Trichlorobenzene	ppbv	5	99	70-130
Naphthalene	ppbv	5	104	70-130
Hexachlorobutadiene	ppbv	5	101	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

912331 ME 12/18/19

Page # 1 of 1

Report To Andy Klopfenstein
Company Point Source Solutions
Address 10445 SW Canyon Rd #266
City, State, ZIP Beaverton, OR 97005
Phone 503-780-1569 Email Andy@...

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: Arcoa Building

PO #

NOTES:

INVOICE TO

TURNAROUND TIME
☒ Standard
☒ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive Samples
☐ Other

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	TPH-GX	Notes
SV1	01	3255	230	IA / (SG)	12/17/19	30	6:09	5	6:16	X			(X)		X	(X) - per AK
SS1	02	3677	204	IA / (SG)	"	29	7:08	5	7:14	X					X	1/3/20 ME
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Eurb
Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		A. Klopfenstein	P.S.S.	12/17/19	14:30
Received by:		James Bruya	F&B	12/18	7:50
Relinquished by:					
Received by:			Samples received at 19 °C		

FORMS\COC\COCTO-15.DOC

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10/23/2020
Mr. Andy Klopfenstein
Point Source Solutions, LLC
2419 SE 11th Avenue

Portland OR 97214

Project Name: Arcoa
Project #: OR190517-3
Workorder #: 2010259A

Dear Mr. Andy Klopfenstein

The following report includes the data for the above referenced project for sample(s) received on 10/12/2020 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Alexandra Winslow at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Alexandra Winslow

Project Manager

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WORK ORDER #: 2010259A

Work Order Summary

CLIENT:	Mr. Andy Klopfenstein Point Source Solutions, LLC 2419 SE 11th Avenue Portland, OR 97214	**BILL TO:**	Mr. Andy Klopfenstein Point Source Solutions, LLC 2419 SE 11th Avenue Portland, OR 97214
PHONE:	503-236-5885	**P.O. #**	
FAX:	503-224-0449	**PROJECT #**	OR190517-3 Arcoa
DATE RECEIVED:	10/12/2020	**CONTACT:**	Alexandra Winslow
DATE COMPLETED:	10/23/2020		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV1b	TO-15	3.3 "Hg	14.9 psi
02A	Lab Blank	TO-15	NA	NA
03A	CCV	TO-15	NA	NA
04A	LCS	TO-15	NA	NA
04AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 10/23/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
Point Source Solutions, LLC
Workorder# 2010259A

One 1 Liter Summa Canister sample was received on October 12, 2020. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene.

Dilution was performed on sample SV1b due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV1b

Lab ID#: 2010259A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trimethylbenzene	2.3	2.6	11	13

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Client Sample ID: SV1b

Lab ID#: 2010259A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a101930**	**Date of Collection: 10/9/20 9:51:00 AM**	
Dil. Factor:	**4.52**	**Date of Analysis: 10/20/20 09:07 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	2.3	Not Detected	7.2	Not Detected
Ethyl Benzene	2.3	Not Detected	9.8	Not Detected
Toluene	2.3	Not Detected	8.5	Not Detected
m,p-Xylene	2.3	Not Detected	9.8	Not Detected
o-Xylene	2.3	Not Detected	9.8	Not Detected
1,3,5-Trimethylbenzene	2.3	Not Detected	11	Not Detected
1,2,4-Trimethylbenzene	2.3	2.6	11	13
Naphthalene	4.5	Not Detected	24	Not Detected
Total Xylenes	4.5	Not Detected	20	Not Detected
TPH ref. to Gasoline (MW=100)	230	Not Detected	920	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2010259A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a101907**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/20 01:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
Total Xylenes	1.0	Not Detected	4.3	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: CCV

Lab ID#: 2010259A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a101902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/20 10:37 AM**	

Compound	%Recovery
Benzene	89
Ethyl Benzene	97
Toluene	90
m,p-Xylene	106
o-Xylene	110
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	101
Naphthalene	105
Total Xylenes	108
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 2010259A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a101903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/20 11:02 AM**	

Compound	%Recovery	Method Limits
Benzene	95	70-130
Ethyl Benzene	102	70-130
Toluene	92	70-130
m,p-Xylene	114	70-130
o-Xylene	113	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	105	70-130
Naphthalene	110	60-140
Total Xylenes	113	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 2010259A-04AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a101904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/19/20 11:27 AM**	

Compound	%Recovery	Method Limits
Benzene	94	70-130
Ethyl Benzene	102	70-130
Toluene	90	70-130
m,p-Xylene	111	70-130
o-Xylene	112	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	104	70-130
Naphthalene	116	60-140
Total Xylenes	112	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130

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Analysis Request /Canister Chain of Custody

For Laboratory Use Only

PID: _____ Workorder #: 2010259

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

page--of ---

Client: Point Source Solutions
Project Name: Arco9
Project Manager: Gil Cobb
Project # OR19Ø517-3
Sampler: Kyle Fisher
Site Name: Arco9

Special Instructions/Notes:
Warning: Sample may be very high

Turnaround Time (Rush surcharges may apply)
Standard ✓ Rush _____ (specify)

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Canister Vacuum/Pressure		Lab Use Only		Requested Analyses			
				Date	Time	Date	Time	Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N_2 / He	See email			
01A	SV16	NØ269	24130	10/9/20	9:42	10/9/20	9:51	29	5			✓			

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
[signature] / Point Source Solutions	10/9/2020	12:06	[signature] EAL	10/12-2020	0928
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name: UPS | Custody Seals Intact? | Yes | No | None (circled)

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

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10/23/2020
Mr. Andy Klopfenstein
Point Source Solutions, LLC
2419 SE 11th Avenue

Portland OR 97214

Project Name: Arcoa
Project #: OR190517-3
Workorder #: 2010259B

Dear Mr. Andy Klopfenstein

The following report includes the data for the above referenced project for sample(s) received on 10/12/2020 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 APH are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Alexandra Winslow at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Alexandra Winslow

Project Manager

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WORK ORDER #: 2010259B

Work Order Summary

CLIENT:	Mr. Andy Klopfenstein Point Source Solutions, LLC 2419 SE 11th Avenue Portland, OR 97214	**BILL TO:**	Mr. Andy Klopfenstein Point Source Solutions, LLC 2419 SE 11th Avenue Portland, OR 97214
PHONE:	503-236-5885	**P.O. #**	
FAX:	503-224-0449	**PROJECT #**	OR190517-3 Arcoa
DATE RECEIVED:	10/12/2020	**CONTACT:**	Alexandra Winslow
DATE COMPLETED:	10/23/2020		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV1b	Modified TO-15 APH	3.3 "Hg	14.9 psi
01B	SV1b	Modified TO-15 APH	3.3 "Hg	14.9 psi
02A	Lab Blank	Modified TO-15 APH	NA	NA
02B	Lab Blank	Modified TO-15 APH	NA	NA
03A	CCV	Modified TO-15 APH	NA	NA
03B	CCV	Modified TO-15 APH	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 10/23/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15 & VPH Fractions
Point Source Solutions, LLC
Workorder# 2010259B

One 1 Liter Summa Canister sample was received on October 12, 2020. The laboratory performed analysis via EPA Method TO-15 and Air Toxics VPH (Volatile Petroleum Hydrocarbon) methods for the Determination of VPH Fractions using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. This method is designed to measure gaseous phase aliphatic and aromatic compounds in ambient air and soil gas collected in stainless steel Summa canisters. Air Toxics VPH method is a hybrid of EPA TO-15, MADEP APH and WSDE VPH methods. Chromatographic peaks were identified via mass spectrum as either aliphatic or aromatic petroleum hydrocarbons and included in the appropriate range as defined by the method. The volatile Aliphatic hydrocarbons are collectively quantified within the C5 to C6 range, C6 to C8 range, C8 to C10 range and the C10 to C12 range. Additionally, the volatile Aromatic hydrocarbons are collectively quantified within the C8 to C10 range and the C10 to C12 range. The Aromatic ranges refer to the equivalent carbon (EC) ranges. (Please note that benzene constitutes the >C5-C7 aromatic range and toluene constitutes the >C7-C8 aromatic range. Benzene and toluene concentrations are reported on the TO-15 workorder fraction.)

Aliphatic data is calculated from the Total Ion chromatogram which has been reprocessed in a duplicate file differentiated from the original by the addition of an alphanumeric extension. The Aromatic calculation also uses the information contained in the associated Extracted Ion file.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified

b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV1b

Lab ID#: 2010259B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	23	36	73	120

Client Sample ID: SV1b

Lab ID#: 2010259B-01B

No Detections Were Found.

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Client Sample ID: SV1b

Lab ID#: 2010259B-01A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	**p102025a**	**Date of Collection: 10/9/20 9:51:00 AM**	
Dil. Factor:	**2.26**	**Date of Analysis: 10/21/20 03:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	23	36	73	120
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	23	Not Detected	93	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	23	Not Detected	130	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	23	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

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Client Sample ID: SV1b

Lab ID#: 2010259B-01B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	**p102025c**	**Date of Collection: 10/9/20 9:51:00 AM**	
Dil. Factor:	**2.26**	**Date of Analysis: 10/21/20 03:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	23	Not Detected	110	Not Detected
>C10-C12 Aromatic Hydrocarbons	23	Not Detected	120	Not Detected

Container Type: 1 Liter Summa Canister

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Client Sample ID: Lab Blank

Lab ID#: 2010259B-02A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	**p102007a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/20/20 03:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: Lab Blank

Lab ID#: 2010259B-02B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	**p102007c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/20/20 03:39 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: CCV

Lab ID#: 2010259B-03A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	**p102005a**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 10/20/20 01:06 PM**

Compound	%Recovery
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	98
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	93
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	88
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	80

Container Type: NA - Not Applicable

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Client Sample ID: CCV

Lab ID#: 2010259B-03B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	**p102005c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/20/20 01:06 PM**	

Compound	%Recovery
>C8-C10 Aromatic Hydrocarbons	97
>C10-C12 Aromatic Hydrocarbons	89

Container Type: NA - Not Applicable

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Analysis Request /Canister Chain of Custody

For Laboratory Use Only

PID: _____ Workorder #: 2010259

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

page--of ---

Client: Point Source Solutions
Project Name: Arco9
Project Manager: Gil Cobb
Project # OR19Ø517-3
Sampler: Kyle Fisher
Site Name: Arco9

Special Instructions/Notes:
Warning: Sample may be very high

Turnaround Time (Rush surcharges may apply)
Standard ✓ Rush _____ (specify)

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Canister Vacuum/Pressure		Lab Use Only		Requested Analyses			
				Date	Time	Date	Time	Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N_2 / He	See email			
01A	SV16	NØ269	24130	10/9/20	9:42	10/9/20	9:51	29	5			✓			

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
[signature] / Point Source Solutions	10/9/2020	12:06	[signature] EAL	10/12-2020	0928
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name: UPS | Custody Seals Intact? | Yes | No | None (circled)

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

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12/4/2020
Mr. Andy Klopfenstein
Point Source Solutions, LLC
2419 SE 11th Avenue

Portland OR 97214

Project Name: Arcoa
Project #: OR190517-3
Workorder #: 2011440

Dear Mr. Andy Klopfenstein

The following report includes the data for the above referenced project for sample(s) received on 11/19/2020 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Alexandra Winslow at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Alexandra Winslow

Project Manager

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WORK ORDER #: 2011440

Work Order Summary

CLIENT:	Mr. Andy Klopfenstein Point Source Solutions, LLC 2419 SE 11th Avenue Portland, OR 97214	**BILL TO:**	Mr. Andy Klopfenstein Point Source Solutions, LLC 2419 SE 11th Avenue Portland, OR 97214
PHONE:	503-236-5885	**P.O. #**	
FAX:	503-224-0449	**PROJECT #**	OR190517-3 Arcoa
DATE RECEIVED:	11/19/2020	**CONTACT:**	Alexandra Winslow
DATE COMPLETED:	12/04/2020		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV2b	TO-15	3.7 "Hg	14.9 psi
02A	SV3b	TO-15	5.1 "Hg	15.1 psi
03A	SV6	TO-15	10.2 "Hg	14.8 psi
04A	SV7	TO-15	4.5 "Hg	15 psi
05A	Lab Blank	TO-15	NA	NA
05B	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
06B	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA
07B	LCS	TO-15	NA	NA
07BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 12/04/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.
Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
EPA Method TO-15
Point Source Solutions, LLC
Workorder# 2011440

Four 1 Liter Summa Canister samples were received on November 19, 2020. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody was missing method information. EATL proceeded with the analysis as per the original contract or verbal agreement.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene.

Dilution was performed on sample SV3b due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV2b

Lab ID#: 2011440-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	1.3	4.3	5.0
Chloroform	1.2	13	5.6	64

Client Sample ID: SV3b

Lab ID#: 2011440-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloroform	51	10000	250	50000
Tetrachloroethene	51	55	340	380
Carbon Tetrachloride	51	580	320	3700

Client Sample ID: SV6

Lab ID#: 2011440-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloroform	1.5	11	7.4	53
Tetrachloroethene	1.5	3.0	10	20

Client Sample ID: SV7

Lab ID#: 2011440-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	3.4	4.5	13

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Client Sample ID: SV2b

Lab ID#: 2011440-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113011**	**Date of Collection:**	**11/18/20 11:48:00 A**
Dil. Factor:	**2.30**	**Date of Analysis:**	**11/30/20 03:34 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	3.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	1.3	4.3	5.0
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
Naphthalene	2.3	Not Detected	12	Not Detected
Total Xylenes	2.3	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	470	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Propanol	4.6	Not Detected	11	Not Detected
Chloroform	1.2	13	5.6	64
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: SV3b

Lab ID#: 2011440-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p120318**	**Date of Collection:**	**11/18/20 10:53:00 A**
Dil. Factor:	**102**	**Date of Analysis:**	**12/3/20 07:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	51	Not Detected	160	Not Detected
Ethyl Benzene	51	Not Detected	220	Not Detected
Toluene	51	Not Detected	190	Not Detected
m,p-Xylene	51	Not Detected	220	Not Detected
o-Xylene	51	Not Detected	220	Not Detected
1,3,5-Trimethylbenzene	51	Not Detected	250	Not Detected
1,2,4-Trimethylbenzene	51	Not Detected	250	Not Detected
Naphthalene	100	Not Detected	530	Not Detected
Total Xylenes	100	Not Detected	440	Not Detected
TPH ref. to Gasoline (MW=100)	5100	Not Detected	21000	Not Detected
1,2-Dichloroethane	51	Not Detected	210	Not Detected
2-Propanol	200	Not Detected	500	Not Detected
Chloroform	51	10000	250	50000
Tetrachloroethene	51	55	340	380
Trichloroethene	51	Not Detected	270	Not Detected
Carbon Tetrachloride	51	580	320	3700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: SV6

Lab ID#: 2011440-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113012**	**Date of Collection:**	**11/18/20 10:15:00 A**
Dil. Factor:	**3.04**	**Date of Analysis:**	**11/30/20 04:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.5	Not Detected	4.8	Not Detected
Ethyl Benzene	1.5	Not Detected	6.6	Not Detected
Toluene	1.5	Not Detected	5.7	Not Detected
m,p-Xylene	1.5	Not Detected	6.6	Not Detected
o-Xylene	1.5	Not Detected	6.6	Not Detected
1,3,5-Trimethylbenzene	1.5	Not Detected	7.5	Not Detected
1,2,4-Trimethylbenzene	1.5	Not Detected	7.5	Not Detected
Naphthalene	3.0	Not Detected	16	Not Detected
Total Xylenes	3.0	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	150	Not Detected	620	Not Detected
1,2-Dichloroethane	1.5	Not Detected	6.2	Not Detected
2-Propanol	6.1	Not Detected	15	Not Detected
Chloroform	1.5	11	7.4	53
Tetrachloroethene	1.5	3.0	10	20
Trichloroethene	1.5	Not Detected	8.2	Not Detected
Carbon Tetrachloride	1.5	Not Detected	9.6	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: SV7

Lab ID#: 2011440-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113013**	**Date of Collection: 11/18/20 1:14:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 11/30/20 04:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	Not Detected	3.8	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
Toluene	1.2	3.4	4.5	13
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
Naphthalene	2.4	Not Detected	12	Not Detected
Total Xylenes	2.4	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	120	Not Detected	490	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2011440-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113010**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/20 01:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
Total Xylenes	1.0	Not Detected	4.3	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: Lab Blank

Lab ID#: 2011440-05B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p120305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/3/20 11:27 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected
Total Xylenes	1.0	Not Detected	4.3	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: CCV

Lab ID#: 2011440-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113008**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/20 12:47 PM**	

Compound	%Recovery
Benzene	88
Ethyl Benzene	104
Toluene	93
m,p-Xylene	113
o-Xylene	112
1,3,5-Trimethylbenzene	108
1,2,4-Trimethylbenzene	119
Naphthalene	111
Total Xylenes	113
TPH ref. to Gasoline (MW=100)	100
1,2-Dichloroethane	89
2-Propanol	75
Chloroform	91
Tetrachloroethene	113
Trichloroethene	96
Carbon Tetrachloride	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 2011440-06B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p120302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/3/20 10:00 AM**	

Compound	%Recovery
Benzene	103
Ethyl Benzene	104
Toluene	104
m,p-Xylene	106
o-Xylene	107
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	117
Naphthalene	86
Total Xylenes	106
TPH ref. to Gasoline (MW=100)	100
1,2-Dichloroethane	116
2-Propanol	124
Chloroform	104
Tetrachloroethene	95
Trichloroethene	102
Carbon Tetrachloride	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2011440-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/20 10:10 AM**	

Compound	%Recovery	Method Limits
Benzene	89	70-130
Ethyl Benzene	107	70-130
Toluene	93	70-130
m,p-Xylene	118	70-130
o-Xylene	114	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	120	70-130
Naphthalene	128	60-140
Total Xylenes	116	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	
1,2-Dichloroethane	91	70-130
2-Propanol	77	70-130
Chloroform	91	70-130
Tetrachloroethene	117	70-130
Trichloroethene	99	70-130
Carbon Tetrachloride	101	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2011440-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**j113004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 11/30/20 10:38 AM**	

Compound	%Recovery	Method Limits
Benzene	87	70-130
Ethyl Benzene	104	70-130
Toluene	92	70-130
m,p-Xylene	113	70-130
o-Xylene	112	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	115	70-130
Naphthalene	120	60-140
Total Xylenes	112	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	
1,2-Dichloroethane	87	70-130
2-Propanol	78	70-130
Chloroform	89	70-130
Tetrachloroethene	115	70-130
Trichloroethene	95	70-130
Carbon Tetrachloride	100	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 2011440-07B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p120303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/3/20 10:29 AM**	

Compound	%Recovery	Method Limits
Benzene	106	70-130
Ethyl Benzene	103	70-130
Toluene	102	70-130
m,p-Xylene	106	70-130
o-Xylene	105	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	111	70-130
Naphthalene	98	60-140
Total Xylenes	105	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	
1,2-Dichloroethane	117	70-130
2-Propanol	130	70-130
Chloroform	108	70-130
Tetrachloroethene	94	70-130
Trichloroethene	105	70-130
Carbon Tetrachloride	103	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 2011440-07BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p120304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/3/20 10:58 AM**	

Compound	%Recovery	Method Limits
Benzene	105	70-130
Ethyl Benzene	105	70-130
Toluene	101	70-130
m,p-Xylene	106	70-130
o-Xylene	105	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	111	70-130
Naphthalene	104	60-140
Total Xylenes	106	70-130
TPH ref. to Gasoline (MW=100)	Not Spiked	
1,2-Dichloroethane	113	70-130
2-Propanol	129	70-130
Chloroform	107	70-130
Tetrachloroethene	95	70-130
Trichloroethene	105	70-130
Carbon Tetrachloride	104	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Analysis Request /Canister Chain of Custody

For Laboratory Use Only

PID: _____ Workorder #: 2011440

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

page--of ---

Client: Point Source Solutions
Project Name: Arcon
Project Manager: Gil Lobb
Project # 0R19[illegible]517-3
Sampler: Kyle Fisher
Site Name: Arcon

Special Instructions/Notes: Note on SV6 in email

Turnaround Time (Rush surcharges may apply)
Standard ✓ Rush _____ (specify)

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Canister Vacuum/Pressure		Lab Use Only		Requested Analyses			
				Date	Time	Date	Time	Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N_2 / He	See email			
01A	SV2b	0B714	25288	11/18/20	11:41	11/18/20	11:48	28	5			✓			
02A	SV3b	N2849	25179	11/18/20	10:47	11/18/20	10:53	30	5			✓			
03A	SV6	N313H	23288	11/18/20	10:10	11/18/20	10:15	25	5			✓			
04A	SV7	A724H	24398	11/18/20	13:09	11/18/20	13:14	28	5			✓			

Relinquished by: (Signature/Affiliation) Point Source Solutions	Date 11/18/20	Time 15:12	Received by: (Signature/Affiliation) EAR	Date 11-19-2020	Time 0933
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name: UPS | Custody Seals Intact? | Yes | No | None

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 4, 2021

Gil Cobb, Project Manager
Point Source Solutions
10445 SW Canyon Rd., Ste. 266
Beaverton, OR 97005

Dear Mr Cobb:

Included are the results from the testing of material submitted on December 22, 2020 from the Arcoa Building, F&BI 012372 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Andy Klopfenstein
PSS0104R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 22, 2020 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 012372 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
012372-01	AA1
012372-02	AA2
012372-03	AA3

A TO-17 internal standard failed the acceptance criteria for sample AA1. The sample was diluted and reanalyzed with acceptable results. Both data sets were reported.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA1b	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-01b 1/0.033
Date Analyzed:	12/22/20	Data File:	122217.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	0.22 J
Carbon tetrachloride	0.46 J
Benzene	0.91 J
Trichloroethene	0.065 J
Ethylbenzene	0.61 J
Gasoline Range Organics	120

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA1b	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-01b 1/0.066
Date Analyzed:	12/23/20	Data File:	122310.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	<0.33
Carbon tetrachloride	0.40
Benzene	<1.3
Trichloroethene	<0.07
Ethylbenzene	0.55

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA1a	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-01a 1/0.033
Date Analyzed:	12/22/20	Data File:	122220.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	<0.16
Carbon tetrachloride	<0.16
Benzene	<0.66
Trichloroethene	<0.033
Ethylbenzene	<0.16
Gasoline Range Organics	<90

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA2b	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-02b 1/0.033
Date Analyzed:	12/22/20	Data File:	122218.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	3.9
Carbon tetrachloride	0.82
Benzene	0.80
Trichloroethene	0.13
Ethylbenzene	0.44
Gasoline Range Organics	120

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA2a	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-02a 1/0.033
Date Analyzed:	12/22/20	Data File:	122221.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	<0.16
Carbon tetrachloride	<0.16
Benzene	<0.66
Trichloroethene	<0.033
Ethylbenzene	<0.16
Gasoline Range Organics	<90

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA3b	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-03b 1/0.033
Date Analyzed:	12/22/20	Data File:	122219.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	<0.16
Carbon tetrachloride	<0.16
Benzene	<0.66
Trichloroethene	<0.033
Ethylbenzene	<0.16
Gasoline Range Organics	<90

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	AA3a	Client:	Point Source Solutions
Date Received:	12/22/20	Project:	Arcoa Building, F&BI 012372
Date Collected:	12/17/20	Lab ID:	012372-03a 1/0.033
Date Analyzed:	12/22/20	Data File:	122222.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	<0.16
Carbon tetrachloride	<0.16
Benzene	<0.66
Trichloroethene	<0.033
Ethylbenzene	<0.16
Gasoline Range Organics	<90

Analysis For Volatile Compounds By Method TO-17

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 012372
Date Collected:	Not Applicable	Lab ID:	00-2839 mb
Date Analyzed:	12/22/20	Data File:	122209.D
Matrix:	Air	Instrument:	GCMS10
Units:	ug/m3	Operator:	bat

Compounds:	Concentration ug/m3
Chloroform	<5
Carbon tetrachloride	<5
Benzene	<20
Trichloroethene	<1
Ethylbenzene	<5
Gasoline Range Organics	<2,500

Date of Report: 01/04/21
Date Received: 12/22/20
Project: Arcoa Building, F&BI 012372

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-17

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chloroform	ng/tube	50	105	70-130
Carbon tetrachloride	ng/tube	50	100	70-130
Benzene	ng/tube	50	96	70-130
Trichloroethene	ng/tube	50	99	70-130
Ethylbenzene	ng/tube	50	101	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

012372

ME 12-22-20

Page # 1 of 1 CR2

Report To Gil Cobb

Company Point Source Solutions

Address 10445 SW Canyon Rd STE 266

City, State, ZIP Beaverton, OR 97005

Phone _____ Email _____

SAMPLERS (*signature*) John Ramm

PROJECT NAME: Arcoa Building

PO #:

REMARKS:

INVOICE TO:

TURNAROUND TIME
- [x] Standard Turnaround
- [ ] RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other _____

Sample Name	Lab ID	Tube ID	Collection Information: Sample Date	Pre-Flow Rate	Post-Flow Rate	Start Time	End Time	Volume Sampled	TO-17 Analytes Requested: Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	TPH-DRO	2-Propanol	see email	Notes
AA1	01	305121 309139	12-17-20 12-18-20	21.56	22.39	15:45	15:45	30.241								X	
AA2	02	311342 453006	" "	20.67	23.13	15:54	15:54	30.24								X	
AA3	03	322171 311390	" "	20.93	22.26	16:38	16:32	30.13								X	
														Samples received at 3 °C			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Ramm	John Ramms	Point Source	12/21/20	3:01
Received by: D. W. B	Liz Webber Bruya	F:B	12/22/20	837
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 26, 2021

Gil Cobb, Project Manager
Point Source Solutions
10445 SW Canyon Rd., Ste. 266
Beaverton, OR 97005

Dear Mr Cobb:

Included are the results from the testing of material submitted on January 19, 2021 from the Arcoa Building, F&BI 101226 project. There are 8 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
PSS0126R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 19, 2021 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 101226 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
101226 -01	AA4
101226 -02	AA5
101226 -03	AA6
101226 -04	AA7

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA4	Client:	Point Source Solutions
Date Received:	01/19/21	Project:	Arcoa Building, F&BI 101226
Date Collected:	01/15/21	Lab ID:	101226-01
Date Analyzed:	01/22/21	Data File:	012123.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	102	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	0.10	0.021

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA5	Client:	Point Source Solutions
Date Received:	01/19/21	Project:	Arcoa Building, F&BI 101226
Date Collected:	01/15/21	Lab ID:	101226-02 1/1.2
Date Analyzed:	01/22/21	Data File:	012124.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	2.9	0.60

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA6	Client:	Point Source Solutions
Date Received:	01/19/21	Project:	Arcoa Building, F&BI 101226
Date Collected:	01/15/21	Lab ID:	101226-03
Date Analyzed:	01/22/21	Data File:	012125.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	0.81	0.17

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA7	Client:	Point Source Solutions
Date Received:	01/19/21	Project:	Arcoa Building, F&BI 101226
Date Collected:	01/15/21	Lab ID:	101226-04
Date Analyzed:	01/22/21	Data File:	012126.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	2.3	0.47

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 101226
Date Collected:	Not Applicable	Lab ID:	01-168 MB
Date Analyzed:	01/21/21	Data File:	012114.D
Matrix:	Air	Instrument:	GCMS12
Units:	ug/m3	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	98	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	<0.049	<0.01

Date of Report: 01/26/21
Date Received: 01/19/21
Project: Arcoa Building, F&BI 101226

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 101286-01 1/5.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Chloroform	ug/m3	0.61	0.59	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chloroform	ug/m3	66	103	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

101226

SAMPLE CHAIN OF CUSTODY

ME 01-19-21

Page # 1 of 1

Report To Gil Cobb

Company Point Source Solutions

Address 10445 SW Canyon Rd STE 266

City, State, ZIP Beaverton, OR 97005

Phone _____ Email _____

SAMPLERS (*signature*) John Ramos

PROJECT NAME: Arcoa Building

PO #:

REPORTING LEVEL: [X] Indoor Air [ ] Deep Soil Gas [ ] Sub Slab/Soil Gas [ ] SVE/Grab

INVOICE TO:

TURNAROUND TIME: [X] Standard [ ] RUSH _____ Rush charges authorized by: _____

SAMPLE DISPOSAL: [ ] Dispose after 30 days [ ] Archive Samples [ ] Other _____

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	Chloroform	Notes
AA4	01	20557	06606	1-15-21	29	8:20	9	4:20				X	
AA5	02	18570	07846	" "	29	8:27	8.5	4:27				X	
AA6	03	18568	05356	" "	30	8:32	8.5	4:32				X	
AA7	04	21437	05350	" "	29	8:37	10	4:37				X	
													Samples received at 19 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Ramos	John Ramos	Point Source	1-18-21	3:09
Received by:	Liz Webber-Bruya	F?B	1/19/21	1826
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 26, 2022

Gil Cobb, Project Manager
Point Source Solutions
10445 SW Canyon Rd., Ste. 266
Beaverton, OR 97005

Dear Mr Cobb:

Included are the results from the testing of material submitted on January 12, 2022 from the Arcoa Building, F&BI 201136 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0126R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 12, 2022 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 201136 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
201136 -01	SS1

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SS1	Client:	Point Source Solutions
Date Received:	01/12/22	Project:	Arcoa Building, F&BI 201136
Date Collected:	01/11/22	Lab ID:	201136-01 1/6.3
Date Analyzed:	01/17/22	Data File:	011720.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<54	<22
Trichloroethene	180	34
Tetrachloroethene	89	13

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 201136
Date Collected:	Not Applicable	Lab ID:	02-0111 MB
Date Analyzed:	01/17/22	Data File:	011710.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<8.6	<3.5
Trichloroethene	<0.11	<0.02
Tetrachloroethene	<6.8	<1

Date of Report: 01/26/22
Date Received: 01/12/22
Project: Arcoa Building, F&BI 201136

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 201112-02 1/5.5 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
2-Propanol	ug/m3	<47	<47	nm
Trichloroethene	ug/m3	<0.59	<0.59	nm
Tetrachloroethene	ug/m3	<37	<37	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
2-Propanol	ug/m3	33	93	70-130
Trichloroethene	ug/m3	73	103	70-130
Tetrachloroethene	ug/m3	92	109	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

201136

01-12-22

Page # 1 of 1

Report To Gil Cobb

Company Point Source Solutions

Address 16445 SW Canyon Rd #E111

City, State, ZIP Beaverton, OR 97005

Phone _____ Email _____

SAMPLERS (*signature*) John Ramis

PROJECT NAME & ADDRESS: Arcoa Building

PO #

NOTES:

INVOICE TO

TURNAROUND TIME
- ☐ Standard
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Default: Clean after 3 days
- ☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED								
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	PCE	TCE	2-Prop	Notes
SS1	01	7993	07	IA / SG	1-11-22	29	13:42	5	13:49						X	X	X	
				IA / SG														
				IA / SG														
				IA / SG														
				IA / SG														
				IA / SG														
				IA / SG														
				IA / SG														

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Ramis	John Ramis	Point Source	1-12-22	10:55
Received by: [signature]	[illegible] Bruya	FBY	1/12/22	1055
Relinquished by:				
Received by:		Samples received at 22 °C		

FORMS\COC\COCTO-15.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 24, 2022

Gil Cobb, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr Cobb:

Included are the results from the testing of material submitted on March 11, 2022 from the ARCOA Building, F&BI 203218 project. There are 11 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Gil Cobb, Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0324R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 11, 2022 by Friedman & Bruya, Inc. from the Point Source Solutions ARCOA Building, F&BI 203218 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
203218 -01	AA8
203218 -02	AA9
203218 -03	SV8
203218 -04	SV9
203218 -05	SV10

The TO-15 gasoline range concentrations were quantified using a single point calibration at 80 ppbv.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA8	Client:	Point Source Solutions
Date Received:	03/11/22	Project:	ARCOA Building, F&BI 203218
Date Collected:	03/09/22	Lab ID:	203218-01
Date Analyzed:	03/11/22	Data File:	031116.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	0.89	0.18
Carbon tetrachloride	0.48	0.076
Benzene	0.37	0.12
Trichloroethene	<0.11	<0.02
Ethylbenzene	<0.43	<0.1
Gasoline Range Organics	<330	<80

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA9	Client:	Point Source Solutions
Date Received:	03/11/22	Project:	ARCOA Building, F&BI 203218
Date Collected:	03/09/22	Lab ID:	203218-02
Date Analyzed:	03/11/22	Data File:	031117.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	20	4.1
Carbon tetrachloride	2.7	0.42
Benzene	0.38	0.12
Trichloroethene	<0.11	<0.02
Ethylbenzene	<0.43	<0.1
Gasoline Range Organics	<330	<80

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV8	Client:	Point Source Solutions
Date Received:	03/11/22	Project:	ARCOA Building, F&BI 203218
Date Collected:	03/18/22	Lab ID:	203218-03 1/5.8
Date Analyzed:	03/19/22	Data File:	031823.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<50	<20
Chloroform	0.40	0.081
Carbon tetrachloride	<1.8	<0.29
Benzene	3.4	1.1
Trichloroethene	<0.62	<0.12
Ethylbenzene	8.9	2.1
Gasoline Range Organics	3,600	880

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV9	Client:	Point Source Solutions
Date Received:	03/11/22	Project:	ARCOA Building, F&BI 203218
Date Collected:	03/18/22	Lab ID:	203218-04 1/6.0
Date Analyzed:	03/19/22	Data File:	031824.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<52	<21
Chloroform	0.67	0.14
Carbon tetrachloride	<1.9	<0.3
Benzene	<1.9	<0.6
Trichloroethene	<0.64	<0.12
Ethylbenzene	<2.6	<0.6
Gasoline Range Organics	<2,000	<480

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV10	Client:	Point Source Solutions
Date Received:	03/11/22	Project:	ARCOA Building, F&BI 203218
Date Collected:	03/18/22	Lab ID:	203218-05 1/6.0
Date Analyzed:	03/19/22	Data File:	031825.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	110	46
Chloroform	280	58
Carbon tetrachloride	42	6.6
Benzene	2.1	0.64
Trichloroethene	<0.64	<0.12
Ethylbenzene	6.7	1.5
Gasoline Range Organics	3,100	750

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	ARCOA Building, F&BI 203218
Date Collected:	Not Applicable	Lab ID:	02-0662 MB
Date Analyzed:	03/18/22	Data File:	031811.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<8.6	<3.5
Chloroform	<0.049	<0.01
Carbon tetrachloride	<0.31	<0.05
Benzene	<0.32	<0.1
Trichloroethene	<0.11	<0.02
Ethylbenzene	<0.43	<0.1
Gasoline Range Organics	<330	<80

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	ARCOA Building, F&BI 203218
Date Collected:	Not Applicable	Lab ID:	02-0564 MB
Date Analyzed:	03/11/22	Data File:	031112.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	<0.049	<0.01
Carbon tetrachloride	<0.31	<0.05
Benzene	<0.32	<0.1
Trichloroethene	<0.11	<0.02
Ethylbenzene	<0.43	<0.1
Gasoline Range Organics	<330	<80

Date of Report: 03/24/22
Date Received: 03/11/22
Project: ARCOA Building, F&BI 203218

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 203099-01 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Chloroform	ug/m3	<0.28	<0.28	nm
Carbon tetrachloride	ug/m3	<1.8	<1.8	nm
Benzene	ug/m3	<1.9	<1.9	nm
Trichloroethene	ug/m3	<0.62	<0.62	nm
Ethylbenzene	ug/m3	<2.5	<2.5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chloroform	ug/m3	66	104	70-130
Carbon tetrachloride	ug/m3	85	106	70-130
Benzene	ug/m3	43	104	70-130
Trichloroethene	ug/m3	73	98	70-130
Ethylbenzene	ug/m3	59	105	70-130

Date of Report: 03/24/22
Date Received: 03/11/22
Project: ARCOA Building, F&BI 203218

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 203292-01 1/6.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
2-Propanol	ug/m3	<52	<52	nm
Chloroform	ug/m3	<0.29	<0.29	nm
Carbon tetrachloride	ug/m3	<1.9	<1.9	nm
Benzene	ug/m3	<1.9	<1.9	nm
Trichloroethene	ug/m3	<0.64	<0.64	nm
Ethylbenzene	ug/m3	<2.6	<2.6	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
2-Propanol	ug/m3	33	74	70-130
Chloroform	ug/m3	66	84	70-130
Carbon tetrachloride	ug/m3	85	85	70-130
Benzene	ug/m3	43	79	70-130
Trichloroethene	ug/m3	73	85	70-130
Ethylbenzene	ug/m3	59	79	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

203218

03-11-22

Page # 1 of 1

Report To Gil Cobb

Company Point Source Solutions

Address 5317 NE St Johns Road

City, State, ZIP Vancouver, WA

Phone _____ Email _____

SAMPLERS (*signature*) John Ramus

PROJECT NAME & ADDRESS: ARCOA Building

PO #

NOTES:

INVOICE TO

TURNAROUND TIME
- ☒ Standard
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Default: Clean after 3 days
- ☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED							
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium	See email	2-hexanone	→ chloroform, carbon tetrachloride, benzene, TCE, ethylbenzene, GRO Notes
AA8	01	37214	8 hr	(IA) / SG	3-9-22	30	8:15	8	16:15						X		
AA9	02	40714	8hr	(IA) / SG	" "	30	8124	5	16:24						X		
SV8	03	8255	256	IA / (SG)	" "	30	8:45	5	8:50						X	X	per JR email
SV9	04	8527	243	IA / (SG)	" "	28	9:20	5	9:25						X	X	
SV10	05	3390	224	IA / (SG)	" "	30	9:43	5	9:49						X	X	
				IA / SG													
				IA / SG													
				IA / SG													

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Ramus	John Ramus	Point Source	3-11-22	11:10
Received by: Tolena Christensen	Tolena Christensen	FBS	3/11/22	11:10
Relinquished by:				
Received by:		Samples received at 17 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 25, 2022

Gil Cobb, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr Cobb:

Included are the additional results from the testing of material submitted on April 8, 2022 from the Arcoa Building, F&BI 204107 project. There are 11 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0425R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 8, 2022 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 204107 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
204107 -01	SB9-S1-2
204107 -02	SB9-S2-4
204107 -03	SB9-S3-6
204107 -04	SB10-S1-2
204107 -05	SB10-S2-4
204107 -06	SB11-S1-2
204107 -07	SB11-S2-4
204107 -08	SB11-S3-6
204107 -09	SB12-S1-2
204107 -10	SB12-S2-4
204107 -11	SB12-S3-6
204107 -12	SB13-S1-2
204107 -13	SB13-S2-4
204107 -14	SB13-S3-6
204107 -15	SB14-S1-2
204107 -16	SB14-S2-4
204107 -17	SB14-S3-6

The 8260D chloroform concentration in the method blank was qualified due to a failed calibration standard. The data were qualified accordingly.

All quality control requirements were acceptable.

Date of Report: 04/25/22
Date Received: 04/08/22
Project: Arcoa Building, F&BI 204107
Date Extracted: 04/18/22
Date Analyzed: 04/19/22

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
SB10-S1-2 204107-04	<5	74
SB11-S1-2 204107-06	<5	79
SB12-S1-2 204107-09	<5	74
SB13-S1-2 204107-12	<5	85
SB14-S1-2 204107-15	<5	68
Method Blank 02-879 MB	<5	80

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	SB10-S1-2	Client:	Point Source Solutions
Date Received:	04/08/22	Project:	Arcoa Building, F&BI 204107
Date Extracted:	04/15/22	Lab ID:	204107-04
Date Analyzed:	04/20/22	Data File:	042025.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	79	128
Toluene-d8	99	84	121
4-Bromofluorobenzene	100	84	116

Compounds:	Concentration mg/kg (ppm)
Chloroform	<0.05
Carbon tetrachloride	<0.05
Benzene	<0.03
Trichloroethene	<0.02
Ethylbenzene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	SB11-S1-2	Client:	Point Source Solutions
Date Received:	04/08/22	Project:	Arcoa Building, F&BI 204107
Date Extracted:	04/15/22	Lab ID:	204107-06
Date Analyzed:	04/20/22	Data File:	042026.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	79	128
Toluene-d8	96	84	121
4-Bromofluorobenzene	96	84	116

Compounds:	Concentration mg/kg (ppm)
Chloroform	0.51
Carbon tetrachloride	<0.05
Benzene	<0.03
Trichloroethene	<0.02
Toluene	<0.05
Ethylbenzene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	SB12-S1-2	Client:	Point Source Solutions
Date Received:	04/08/22	Project:	Arcoa Building, F&BI 204107
Date Extracted:	04/15/22	Lab ID:	204107-09
Date Analyzed:	04/20/22	Data File:	042028.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	79	128
Toluene-d8	97	84	121
4-Bromofluorobenzene	97	84	116

Compounds:	Concentration mg/kg (ppm)
Chloroform	0.080
Carbon tetrachloride	<0.05
Benzene	<0.03
Trichloroethene	<0.02
Ethylbenzene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	SB13-S1-2	Client:	Point Source Solutions
Date Received:	04/08/22	Project:	Arcoa Building, F&BI 204107
Date Extracted:	04/15/22	Lab ID:	204107-12
Date Analyzed:	04/20/22	Data File:	042029.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	79	128
Toluene-d8	93	84	121
4-Bromofluorobenzene	97	84	116

Compounds:	Concentration mg/kg (ppm)
Chloroform	0.086
Carbon tetrachloride	<0.05
Benzene	<0.03
Trichloroethene	<0.02
Ethylbenzene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	SB14-S1-2	Client:	Point Source Solutions
Date Received:	04/08/22	Project:	Arcoa Building, F&BI 204107
Date Extracted:	04/15/22	Lab ID:	204107-15
Date Analyzed:	04/20/22	Data File:	042030.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	79	128
Toluene-d8	95	84	121
4-Bromofluorobenzene	97	84	116

Compounds:	Concentration mg/kg (ppm)
Chloroform	<0.05
Carbon tetrachloride	<0.05
Benzene	<0.03
Trichloroethene	<0.02
Ethylbenzene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 204107
Date Extracted:	04/15/22	Lab ID:	02-921 mb
Date Analyzed:	04/15/22	Data File:	041505.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	90	109
Toluene-d8	93	89	112
4-Bromofluorobenzene	109	84	115

Compounds:	Concentration mg/kg (ppm)
Chloroform	<0.05 ca
Carbon tetrachloride	<0.05
Benzene	<0.03
Trichloroethene	<0.02
Ethylbenzene	<0.05

Date of Report: 04/25/22
Date Received: 04/08/22
Project: Arcoa Building, F&BI 204107

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 204226-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	85	71-131

Date of Report: 04/25/22
Date Received: 04/08/22
Project: Arcoa Building, F&BI 204107

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Chloroform	mg/kg (ppm)	1	73	71	66-120	3
Carbon tetrachloride	mg/kg (ppm)	1	87	80	60-139	8
Benzene	mg/kg (ppm)	1	82	78	71-118	5
Trichloroethene	mg/kg (ppm)	1	81	78	63-121	4
Ethylbenzene	mg/kg (ppm)	1	104	98	64-123	6

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

204107

SAMPLE CHAIN OF CUSTODY 04.08.22

603

Page # 1 of 2 CDL

Report To Gil Cobb

Company Point Source Solutions

Address 5317 NE St Johns Rd STE D

City, State, ZIP Vancouver WA

Phone _____ Email _____

SAMPLERS (*signature*) John Kerr

PROJECT NAME: Arcca Building

PO #:

REMARKS:

Project specific RLs? - Yes / No

INVOICE TO:

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	See site plan for list	Hold			● per GC 4/15/22 AE Notes
SB9-S1-2	01A-C	4-6-22	11:22	Soil	3								X				chloroform
SB9-S2-4	02	" "	11:38	" "	3								X				carbon tetrachloride
SB9-S3-6	03	" "	12:06	" "	3								X				Benzene
SB10-S1-2	04	" "	12:20	" "	3								●	~~X~~			Trichloroethene
SB10-S2-4	05	" "	12:28	" "	3								X	X			Ethylbenzene
SB11-S1-2	06	" "	12:35	" "	3								●	~~X~~			GRO
SB11-S2-4	07	" "	12:51	" "	3								X	X			
SB11-S3-6	08	" "	12:58	" "	3								X	X			
SB12-S1-2	09	" "	13:08	" "	3								●	~~X~~			
SB12-S2-4	10	" "	13:17	" "	3								X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Kerr	John Kerr	Point Source	4-8-22	10:36
Received by: D. Mc-B	Liz Webber-Bruya	F?B	4/8/22	1036
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

204101

SAMPLE CHAIN OF CUSTODY

04.08.22

CH2 605

Page # 2 of 2 CDF

Report To Gil Cobb

Company Point Source Solutions

Address 5317 NE St Johns Rd STE D

City, State, ZIP Vancouver, WA

Phone _____ Email _____

SAMPLERS (*signature*) John Ram

PROJECT NAME: Arcea Building

PO #:

REMARKS:

Project specific RLs? - Yes / No

INVOICE TO:

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	see side note	Hold			Notes
SB12-S3-6	11 A-C	4-6-22	13:38	Soil	3								X	X			chloroform
SB13-S1-2	12	" "	14:03	" "	3								●	X			Carbon tetrachloride
SB13-S2-4	13	" "	14:15	" "	3								X	X			Benzene
SB13-S3-6	14	" "	14:20	" "	3								X	X			Trichloroethene
SB14-S1-2	15	" "	14:25	" "	3								●	X			Ethylbenzene
SB14-S2-4	16	" "	14:40	" "	3								X	X			GRO
SB14-S3-6	17	" "	14:45	" "	3								X	X			

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: John Ram	John Ramus	Point Source	4-8-22	10:36
Received by: Liz Webber-Bruya	Liz Webber-Bruya	F?B	4/8/22	1036
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 31, 2022

Gil Cobb, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr Cobb:

Included are the additional results from the testing of material submitted on May 13, 2022 from the Arcon Building, F&BI 205235 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Gil Cobb, Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0531R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Sewer Gas	Client:	Point Source Solutions
Date Received:	05/13/22	Project:	Arcon Building, F&BI 205235
Date Collected:	05/12/22	Lab ID:	205235-01 1/4.5
Date Analyzed:	05/18/22	Data File:	051737.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	14	2.8
Carbon tetrachloride	1.8	0.29
Benzene	<1.4	<0.45
Ethylbenzene	<2	<0.45

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcon Building, F&BI 205235
Date Collected:	05/17/22	Lab ID:	02-1209 MB
Date Analyzed:	05/18/22	Data File:	051727.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	<0.049	<0.01
Carbon tetrachloride	<0.31	<0.05
Benzene	<0.32	<0.1
Ethylbenzene	<0.43	<0.1

Date of Report: 05/31/22
Date Received: 05/13/22
Project: Arcon Building, F&BI 205235

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 205235-01 1/4.5 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Chloroform	ug/m3	14	13	7
Carbon tetrachloride	ug/m3	1.8	1.8	0
Benzene	ug/m3	<1.4	<1.4	nm
Ethylbenzene	ug/m3	<2	<2	nm

Date of Report: 05/31/22
Date Received: 05/13/22
Project: Arcon Building, F&BI 205235

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chloroform	ug/m3	66	97	70-130
Carbon tetrachloride	ug/m3	85	103	70-130
Benzene	ug/m3	43	86	70-130
Ethylbenzene	ug/m3	59	81	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

205235 05-13-22

Page # 1 of 1

Report To GiI Cobb

Company Point Source Solutions

Address 5317 NE St Johns Rd Ste D

City, State, ZIP Vancouver, WA 98661

Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: Arcon Building

PO #:

NOTES:

INVOICE TO

TURNAROUND TIME
- ☒ Standard
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Default: Clean after 3 days
- ☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	Chlorotoluene, bromo & API ES	Helium	2-Prop	Notes
Sewer Gas	01	2434	88	(IA) / SG	5/12/22	28	9:32	5	9:39			X	*		X	
				IA / SG												* Add 4
				IA / SG												analytes per
				IA / SG												KF
				IA / SG												5/5/22
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Kyle Fisher	PSS	5/12/22	9:58
Received by:			FRB	5/13/22	10:30
Relinquished by:					
Received by:			Samples received at 19°C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 16, 2023

Gil Cobb, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr Cobb:

Included are the results from the testing of material submitted on March 8, 2023 from the Arcoa Building, F&BI 303127 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0316R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 8, 2023 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 303127 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
303127 -01	MW4
303127 -02	MW4-DUP
303127 -03	MW5
303127 -04	MW1
303127 -05	MW2
303127 -06	MW3
303127 -07	MW6

The 8260D matrix spike and laboratory control sample exceeded the acceptance criteria for several analytes. The compounds were not detected, therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 03/16/23
Date Received: 03/08/23
Project: Arcoa Building, F&BI 303127
Date Extracted: 03/10/23
Date Analyzed: 03/10/23

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW4 303127-01	680	148
MW4-DUP 303127-02	720	ip
MW5 303127-03	<100	110
MW1 303127-04	<100	103
MW2 303127-05	<100	101
MW3 303127-06	<100	97
MW6 303127-07	<100	103
Method Blank 03-568 MB	<100	102

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW4	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-01
Date Analyzed:	03/14/23	Data File:	031409.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	89	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	106	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.39	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	1.5
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	5.6
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	7.1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	1.5
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	1.1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	12
Benzene	<0.35	sec-Butylbenzene	8.4
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW4-DUP	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-02
Date Analyzed:	03/14/23	Data File:	031410.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	71	132
Toluene-d8	102	68	139
4-Bromofluorobenzene	106	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.42	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	1.5
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	5.6
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	6.8
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	1.4
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	1.0
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	12
Benzene	<0.35	sec-Butylbenzene	8.2
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW5	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-03
Date Analyzed:	03/14/23	Data File:	031411.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	102	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	1.8	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW1	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-04
Date Analyzed:	03/14/23	Data File:	031412.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	98	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW2	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-05
Date Analyzed:	03/14/23	Data File:	031413.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	71	132
Toluene-d8	93	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW3	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-06
Date Analyzed:	03/14/23	Data File:	031414.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	89	71	132
Toluene-d8	91	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	1.5	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW6	Client:	Point Source Solutions
Date Received:	03/08/23	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	303127-07
Date Analyzed:	03/14/23	Data File:	031415.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	1.0
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 303127
Date Extracted:	03/10/23	Lab ID:	03-0544 mb
Date Analyzed:	03/10/23	Data File:	031007.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	99	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 03/16/23
Date Received: 03/08/23
Project: Arcoa Building, F&BI 303127

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 303127-07 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	99	70-130

Date of Report: 03/16/23
Date Received: 03/08/23
Project: Arcoa Building, F&BI 303127

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 303110-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	137	50-150
Chloromethane	ug/L (ppb)	10	<10	117	50-150
Vinyl chloride	ug/L (ppb)	10	<0.02	126	50-150
Bromomethane	ug/L (ppb)	10	<5	109	50-150
Chloroethane	ug/L (ppb)	10	<1	120	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	173 vo	50-150
Acetone	ug/L (ppb)	50	<50	179 vo	50-150
1,1-Dichloroethene	ug/L (ppb)	10	<1	186 vo	50-150
Hexane	ug/L (ppb)	10	<5	96	50-150
Methylene chloride	ug/L (ppb)	10	<5	80	50-150
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	96	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	97	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	96	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	99	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	97	50-150
Chloroform	ug/L (ppb)	10	<1	94	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	89	50-150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	89	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	97	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	95	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	94	50-150
Benzene	ug/L (ppb)	10	<0.35	99	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	91	50-150
1,2-Dichloropropane	ug/L (ppb)	10	<1	97	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	91	50-150
Dibromomethane	ug/L (ppb)	10	<1	100	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	106	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	99	50-150
Toluene	ug/L (ppb)	10	<1	100	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	97	50-150
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	95	50-150
2-Hexanone	ug/L (ppb)	50	<10	103	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	99	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	101	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	97	50-150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	100	50-150
Chlorobenzene	ug/L (ppb)	10	<1	97	50-150
Ethylbenzene	ug/L (ppb)	10	<1	97	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	98	50-150
m,p-Xylene	ug/L (ppb)	20	<2	97	50-150
o-Xylene	ug/L (ppb)	10	<1	97	50-150
Styrene	ug/L (ppb)	10	<1	105	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	98	50-150
Bromoform	ug/L (ppb)	10	<5	94	50-150
n-Propylbenzene	ug/L (ppb)	10	<1	102	50-150
Bromobenzene	ug/L (ppb)	10	<1	97	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	97	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	110	50-150
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	95	50-150
2-Chlorotoluene	ug/L (ppb)	10	<1	102	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	107	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	101	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	101	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	103	50-150
p-Isopropyltoluene	ug/L (ppb)	10	<1	105	50-150
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	102	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	101	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	99	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	95	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	103	50-150
Naphthalene	ug/L (ppb)	10	<1	100	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	95	50-150

Date of Report: 03/16/23
Date Received: 03/08/23
Project: Arcoa Building, F&BI 303127

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	141	142	46-206	1
Chloromethane	ug/L (ppb)	10	115	118	70-142	3
Vinyl chloride	ug/L (ppb)	10	126	124	70-130	2
Bromomethane	ug/L (ppb)	10	105	106	56-197	1
Chloroethane	ug/L (ppb)	10	109	114	70-130	4
Trichlorofluoromethane	ug/L (ppb)	10	105	167 vo	70-130	46 vo
Acetone	ug/L (ppb)	50	90	84	10-140	7
1,1-Dichloroethene	ug/L (ppb)	10	97	97	70-130	0
Hexane	ug/L (ppb)	10	104	98	54-136	6
Methylene chloride	ug/L (ppb)	10	98	93	43-134	5
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	93	96	70-130	3
trans-1,2-Dichloroethene	ug/L (ppb)	10	96	96	70-130	0
1,1-Dichloroethane	ug/L (ppb)	10	94	95	70-130	1
2,2-Dichloropropane	ug/L (ppb)	10	100	101	70-130	1
cis-1,2-Dichloroethene	ug/L (ppb)	10	98	95	70-130	3
Chloroform	ug/L (ppb)	10	90	88	70-130	2
2-Butanone (MEK)	ug/L (ppb)	50	85	89	17-154	5
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	87	88	70-130	1
1,1,1-Trichloroethane	ug/L (ppb)	10	95	96	70-130	1
1,1-Dichloropropene	ug/L (ppb)	10	92	94	70-130	2
Carbon tetrachloride	ug/L (ppb)	10	93	93	70-130	0
Benzene	ug/L (ppb)	10	97	99	70-130	2
Trichloroethene	ug/L (ppb)	10	89	90	70-130	1
1,2-Dichloropropane	ug/L (ppb)	10	92	96	70-130	4
Bromodichloromethane	ug/L (ppb)	10	96	95	70-130	1
Dibromomethane	ug/L (ppb)	10	100	97	70-130	3
4-Methyl-2-pentanone	ug/L (ppb)	50	106	105	68-130	1
cis-1,3-Dichloropropene	ug/L (ppb)	10	94	100	69-131	6
Toluene	ug/L (ppb)	10	105	99	70-130	6
trans-1,3-Dichloropropene	ug/L (ppb)	10	103	96	70-130	7
1,1,2-Trichloroethane	ug/L (ppb)	10	102	97	70-130	5
2-Hexanone	ug/L (ppb)	50	111	95	45-138	16
1,3-Dichloropropane	ug/L (ppb)	10	107	107	70-130	0
Tetrachloroethene	ug/L (ppb)	10	106	99	70-130	7
Dibromochloromethane	ug/L (ppb)	10	112	98	60-148	13
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	105	100	70-130	5
Chlorobenzene	ug/L (ppb)	10	104	98	70-130	6
Ethylbenzene	ug/L (ppb)	10	104	97	70-130	7
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	104	93	70-130	11
m,p-Xylene	ug/L (ppb)	20	103	96	70-130	7
o-Xylene	ug/L (ppb)	10	103	96	70-130	7
Styrene	ug/L (ppb)	10	112	97	70-130	14
Isopropylbenzene	ug/L (ppb)	10	103	98	70-130	5
Bromoform	ug/L (ppb)	10	98	91	69-138	7
n-Propylbenzene	ug/L (ppb)	10	102	102	70-130	0
Bromobenzene	ug/L (ppb)	10	96	96	70-130	0
1,3,5-Trimethylbenzene	ug/L (ppb)	10	100	100	70-130	0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	111	110	70-130	1
1,2,3-Trichloropropane	ug/L (ppb)	10	98	98	70-130	0
2-Chlorotoluene	ug/L (ppb)	10	104	107	70-130	3
4-Chlorotoluene	ug/L (ppb)	10	107	105	70-130	2
tert-Butylbenzene	ug/L (ppb)	10	97	98	70-130	1
1,2,4-Trimethylbenzene	ug/L (ppb)	10	100	96	70-130	4
sec-Butylbenzene	ug/L (ppb)	10	107	104	70-130	3
p-Isopropyltoluene	ug/L (ppb)	10	106	103	70-130	3
1,3-Dichlorobenzene	ug/L (ppb)	10	104	100	70-130	4
1,4-Dichlorobenzene	ug/L (ppb)	10	102	103	70-130	1
1,2-Dichlorobenzene	ug/L (ppb)	10	99	101	70-130	2
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	102	97	70-130	5
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	95	70-130	2
Hexachlorobutadiene	ug/L (ppb)	10	102	104	70-130	2
Naphthalene	ug/L (ppb)	10	101	100	70-130	1
1,2,3-Trichlorobenzene	ug/L (ppb)	10	97	99	70-130	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY 03/8/23

VW2

303127

Report To Gil Cobb

Company Point Source Solutions

Address 5317 NE St Johns Rd Ste. D

City, State, ZIP Vancouver, WA 98661

Phone _____ Email _____

SAMPLERS (*signature*) [redacted]

PROJECT NAME: Arcos Building

PO #:

REMARKS:

Project Specific RLs - Yes / No

INVOICE TO:

Page # 1 of 1

TURNAROUND TIME
- X Standard Turnaround
- RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- Dispose after 30 days
- Archive Samples
- Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082						Notes
MW4	01 AP	3/2/23	9:23	W	4		X		X								
MW4-DUP	02		9:24														
MW5	03		9:17														
MW1	04		10:03														
MW2	05		10:17														
MW3	06		11:01														
MW6	07		11:15														
																	Samples received at 9 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Kyle Fisher	955	3/2/23	13:30
Received by: [signature]	ANH PHAN	F&B	03/08/23	11:15
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 24, 2023

Gil Cobb, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr Cobb:

Included are the results from the testing of material submitted on April 18, 2023 from the Arcoa Building, F&BI 304242 project. There are 6 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0424R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 18, 2023 by Friedman & Bruya, Inc. from the Point Source Solutions Arcoa Building, F&BI 304242 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
304242 -01	SV11
304242 -02	Riser

The chloroform concentration in the samples exceeded the calibration range of the instrument. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	SV11	Client:	Point Source Solutions
Date Received:	04/18/23	Project:	Arcoa Building, F&BI 304242
Date Collected:	04/17/23	Lab ID:	304242-01 1/15
Date Analyzed:	04/19/23	Data File:	041825.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<130	<52
Chloroform	2,700 ve	550 ve
Carbon tetrachloride	61	9.8

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Riser	Client:	Point Source Solutions
Date Received:	04/18/23	Project:	Arcoa Building, F&BI 304242
Date Collected:	04/17/23	Lab ID:	304242-02 1/16
Date Analyzed:	04/19/23	Data File:	041826.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/m3	ppbv
Chloroform	3,300 ve	680 ve
Carbon tetrachloride	290	46

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Arcoa Building, F&BI 304242
Date Collected:	Not Applicable	Lab ID:	03-0738 MB
Date Analyzed:	04/18/23	Data File:	041812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	ppbv
2-Propanol	<8.6	<3.5
Chloroform	<0.049	<0.01
Carbon tetrachloride	<0.31	<0.05

Date of Report: 04/24/23
Date Received: 04/18/23
Project: Arcoa Building, F&BI 304242

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 304246-01 1/8.0 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
2-Propanol	ug/m3	<69	<69	nm
Chloroform	ug/m3	0.66	0.66	0
Carbon tetrachloride	ug/m3	<2.5	<2.5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
2-Propanol	ug/m3	33	81	70-130
Chloroform	ug/m3	66	98	70-130
Carbon tetrachloride	ug/m3	85	109	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY 04/17/23

304242

Report To Gil Cobb

Company Point Source Solutions

Address 5317 NE St Johns Rd, Ste. D

City, State, ZIP Vancouver, WA 98661

Phone _____ Email _____

SAMPLERS (*signature*)	
PROJECT NAME & ADDRESS Arcon Building	PO #
NOTES:	INVOICE TO

Page # 1 of 1

TURNAROUND TIME
Standard
X RUSH 5 day
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean after 3 days
Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	Chloroform APH	Carbon Tetrachloride Helium	2-propanol	X - per KF 4/18 Notes
SV11	01	2438	18	IA / (SG)	4/17/23	30	12:56	5	13:05				X	X	X	See email
Riser	02	3251	17	IA / (SG)	↓	30	13:14	5	13:21				X	X		See email
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG							Samples received at 18 °C					
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kyle Fisher	PSS	4/17/23	16:02
Received by:	ANH PHAN	FSB	04/18/23	10:32
Relinquished by:				
Received by:				

FORMS\COC\COCTO-15.DOC

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX F

ECOLOGICAL BASIC SITE INFORMATION CHECKLIST

Basic Site Information Checklist

(Appendix A1, "Conducting Ecological Risk Assessments", Oregon DEQ, September 2020)

General Site Information		
ECSI File No. or LUST File No.: ECSI No. 6199		
Site Name: Former Allyn's Cleaning & Dyeing		
Site Location (address, city, and/or county): 1006 SE Grand Avenue, Portland, Multnomah County, Oregon, 97203		
Latitude/Longitude: 45.515629 N, -122.660417W		
Current Site Use: Commercial Retail and Office Space		
Historical Site Use: Dry Cleaning and Commercial Dying Operations (1935-1960).		
Zoning: EX - Central Employment by City of Portland		
Site Features: The Site is improved with a 23,400 square foot three-story commercial building with a partial basement constructed in 1909 and a 2,100 square foot single-story addition to the east of the main Site building constructed in 1985. Served by City of Portland municipal water and sanitary sewer.		
Chemicals of Interest: TPH-Gx (Stoddard), TPH-Dx, TPH-Dx (Heavy Oil), Carbon Tetrachloride, Chloroform, Benzene, Cis-1,2-DCE, 1,1-DCE, EDC, Ethylbenzene, Isopropyl benzene, Naphthalene, PCE, TCE, 1,2,4-TMB, 1,3,5-TMB, Toluene, Vinyl Chloride, Total Xylenes		
Site Conditions – Provide Approximate Areas (acreage or square-feet)		
Site	**Within ¼ mile**	
No	No	**Terrestrial Open Habitat/Grasslands:** Dominated by short to medium-tall grasses, low to medium shrubs, or bare soil.
No	No	**Forest or Woodland Habitats:** Woodlands (maple, alder, aspen), conifer forest (Douglas fir, hemlock, cedar, spruce), mixed-woodland, juniper, pine (ponderosa, lodgepole)
No	No	**Wetland:** May be either tidal or non-tidal wetlands with emergent herbaceous plants.
No	Yes	**Riparian Zone:** Patches or linear strips of land adjacent to waterbodies

		(rivers, streams, waterbodies), or on nearby floodplains and terraces. May be impacted by periodic riverine flooding or perennial flowing water. May or may not also contain wetlands.
No	No	**Aquatic Open Water:** Ponds, lakes, reservoirs, rivers, creeks, streams, bays, estuaries, and nearshore marine and intertidal.
Yes	Yes	**Impermeable Surface:** Pavement, structures. The Site and surrounding areas are fully paved with asphalt and concrete.

Documentation (attached)

Aerial Site Vicinity Map(s). (**Figure 1**), Topographic Map. (**Figure 2**)

Site Plan identifying Site features. (**Figure 3**)

Figures illustrating sample locations and former drycleaner location (**Figure 4A – 5B**)

Aerial Map showing habitat types described above both within and adjacent to the Site by at least ¼ mile from Site boundary. (**Figure 9**)

Summary of known or potential contaminated soil, groundwater, migration pathways:

All contaminated soil on Site is capped by an impermeable surface and is inaccessible to ecological receptors.

The plume of contaminated groundwater is not contiguous to any freshwater habitat, as the Willamette River is over a ¼ mile away from the western edge of the estimated plume.

No significant on-site exposure pathways have been identified for ecological receptors, as there is less than 0.5 sq. acres of exposed, unpaved soil in the LOF, and no area adjacent to the LOF contains a terrestrial exposure area greater than 0.5 sq. acres.

Checklist Completed By:

Name: Kyle Fisher

Title: Project Manager, Point Source Solutions

Expertise: BA, Environmental Studies

Date: April 17, 2023

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX G
SPREADSHEET for CALCULATING NON-CARCINOGENIC SSRBCs for TPH

Risk-Based Concentrations for TPH: Site-Specific Data

	RBCss					RBCso			
Fuel Fraction	Residential (mg/kg)	Urban Residential (mg/kg)	Occupational (mg/kg)	Construction Worker (mg/kg)	Excavation Worker (mg/kg)	Residential (mg/kg)	Urban Residential (mg/kg)	Occupational (mg/kg)	Residential (mg/kg)
Aliphatic C5-C6	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aliphatic >C6-C8	2.4E-04	2.4E-04	2.2E-04	9.4E-05	9.5E-05	5.7E-04	5.7E-04	5.3E-03	1.9E-03
Aliphatic >C8-C10	3.1E-01	3.1E-01	3.4E-01	4.0E-01	3.9E-01	2.4E-01	2.4E-01	2.4E-01	7.8E-01
Aliphatic >C10-C12	2.7E-01	2.7E-01	2.8E-01	3.4E-01	3.2E-01	9.1E-02	9.1E-02	2.0E-02	1.5E-01
Aliphatic >C12-C16	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aliphatic >C16-C21	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aliphatic >C21-C34	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aromatic >C8-C10	9.2E-19	9.2E-19	8.7E-19	5.6E-19	4.9E-19	1.8E-18	1.8E-18	1.8E-18	8.3E-19
Aromatic >C10-C12	1.4E-01	1.4E-01	1.3E-01	1.3E-01	1.1E-01	8.4E-02	8.4E-02	2.0E-02	1.7E-02
Aromatic >C12-C16	1.0E-02	8.8E-03	8.8E-03	1.1E-02	1.0E-02	7.0E-04	7.0E-04	1.6E-04	3.3E-04
Aromatic >C16-C21	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Aromatic >C21-C34	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
n-Hexane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Benzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Total Xylenes	1.9E-03	2.0E-03	1.8E-03	9.9E-04	9.1E-04	4.1E-03	4.1E-03	5.7E-03	3.5E-03
1,2,4-trimethylbenzene	2.5E-01	2.5E-01	2.2E-01	9.6E-02	4.0E-02	5.8E-01	5.8E-01	1.8E-01	4.3E-02
1,3,5-trimethylbenzene	1.0E-02	1.0E-02	1.2E-02	1.7E-02	1.7E-02	1.1E-19	1.1E-19	4.3E-20	5.1E-20
Naphthalene	7.9E-03	6.0E-03	4.3E-03	3.2E-03	1.3E-03	1.6E-03	1.6E-03	3.9E-04	3.3E-04
TPH RBC* ⟶	620	1,200	9,700	4,200	>MAX	3,000	3,000	>MAX	80
Generic Gasoline	1,200	2,500	20,000	9,700	>MAX	5,900	5,900	69,000	94
Generic Diesel / Heating Oil	1,100	2,200	14,000	4,600	>MAX	>MAX	>MAX	>MAX	>MAX
Generic Mineral Insulating Oil	2,800	5,700	36,000	11,000	>MAX	>MAX	>MAX	>MAX	>MAX

RBCsi		RBCsw			RBCtw			RBCwo		
Urban Residential	Occupational	Residential	Urban Residential	Occupational	Residential	Urban Residential	Occupational	Residential	Urban Residential	Occupational
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E+03	1.5E+03	6.1E+03	6.5E+04	6.5E+04	2.7E+05
1.9E-03	1.6E-03	2.9E-04	2.9E-04	8.6E-05	1.5E+03	1.5E+03	6.1E+03	4.3E+04	4.3E+04	1.8E+05
7.8E-01	6.6E-02	2.1E-02	2.1E-02	3.5E-03	1.3E+02	1.3E+02	5.5E+02	3.8E+03	3.8E+03	1.6E+04
1.5E-01	5.5E-03	1.6E-03	1.6E-03	2.0E-04	1.3E+02	1.3E+02	5.5E+02	2.6E+03	2.6E+03	1.1E+04
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.7E+02	3.7E+02	1.5E+03	5.9E+02	5.9E+02	2.5E+03
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E+05	1.1E+05	4.4E+05	6.3E+18	6.3E+18	2.6E+19
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.1E+05	1.1E+05	4.4E+05	3.1E+17	3.1E+17	1.3E+18
8.3E-19	4.8E-19	4.0E-18	4.0E-18	2.9E-18	2.0E+19	2.0E+19	8.3E+19	5.0E+22	5.0E+22	2.1E+23
1.7E-02	5.6E-03	2.9E-01	2.9E-01	1.3E-01	1.8E+02	1.8E+02	7.3E+02	1.2E+06	1.2E+06	4.9E+06
3.3E-04	4.3E-05	1.2E-02	1.2E-02	2.6E-03	1.8E+02	1.8E+02	7.3E+02	1.9E+06	1.9E+06	7.9E+06
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E+02	1.8E+02	7.3E+02	3.8E+06	3.8E+06	1.6E+07
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E+03	1.5E+03	5.8E+03	4.2E+24	4.2E+24	1.8E+25
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.8E+02	8.8E+02	3.6E+03	2.1E+05	2.1E+05	9.0E+05
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.4E+01	4.4E+01	1.8E+02	2.8E+05	2.8E+05	1.2E+06
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.3E+03	2.3E+03	9.2E+03	4.4E+07	4.4E+07	1.8E+08
0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.3E+03	1.3E+03	5.5E+03	8.8E+06	8.8E+06	3.7E+07
3.5E-03	1.5E-03	3.4E-02	3.4E-02	2.0E-02	2.0E+02	2.0E+02	8.5E+02	9.2E+05	9.2E+05	3.9E+06
4.3E-02	5.0E-02	5.6E-01	5.6E-01	7.6E-01	1.5E+01	1.5E+01	6.1E+01	8.0E+04	8.0E+04	3.3E+05
5.1E-20	1.2E-20	2.2E-02	2.2E-02	8.0E-03	3.7E+02	3.7E+02	1.5E+03	9.2E+22	9.2E+22	3.9E+23
3.3E-04	1.1E-04	5.6E-02	5.6E-02	2.5E-02	6.2E+00	6.2E+00	2.6E+01	1.4E+05	1.4E+05	5.7E+05
80	>MAX	220	220	>MAX	100	100	430	>S	>S	>S
94	>MAX	31	31	130	110	110	450	>S	>S	>S
>MAX	>MAX	9,500	9,500	>MAX	100	100	430	>S	>S	>S
>MAX	>MAX	>MAX	>MAX	>MAX	300	300	1,300	>S	>S	>S

RBCwi			RBCwe	RBCair			RBCsg		
Residential (ug/L)	Urban Residential (ug/L)	Occupational (ug/L)	Construction & Excavation Worker (ug/L)	Residential (ug/m^3)	Urban Residential (ug/m^3)	Occupational (ug/m^3)	Residential (ug/m^3)	Urban Residential (ug/m^3)	Occupational (ug/m^3)
2.9E+03	2.9E+03	3.7E+04	1.7E+05	7.3E+02	7.3E+02	3.1E+03	1.5E+05	1.5E+05	3.1E+06
1.9E+03	1.9E+03	2.4E+04	1.7E+05	7.3E+02	7.3E+02	3.1E+03	1.5E+05	1.5E+05	3.1E+06
1.7E+02	1.7E+02	2.2E+03	2.0E+03	1.0E+02	1.0E+02	4.4E+02	2.1E+04	2.1E+04	4.4E+05
1.1E+02	1.1E+02	1.4E+03	6.7E+02	1.0E+02	1.0E+02	4.4E+02	2.1E+04	2.1E+04	4.4E+05
2.6E+01	2.6E+01	3.3E+02	1.2E+02	1.0E+02	1.0E+02	4.4E+02	-	-	-
2.8E+17	2.8E+17	3.5E+18	2.4E+03	1.0E+19	1.0E+19	4.4E+19	-	-	-
1.4E+16	1.4E+16	1.7E+17	9.0E+02	1.0E+19	1.0E+19	4.4E+19	-	-	-
2.7E+21	2.7E+21	3.4E+22	2.1E+21	1.0E+19	1.0E+19	4.4E+19	-	-	-
8.9E+04	8.9E+04	1.1E+06	1.4E+04	1.0E+02	1.0E+02	4.4E+02	2.1E+04	2.1E+04	4.4E+05
2.3E+05	2.3E+05	2.9E+06	1.2E+04	1.0E+02	1.0E+02	4.4E+02	2.1E+04	2.1E+04	4.4E+05
8.9E+05	8.9E+05	1.1E+07	9.5E+03	1.0E+02	1.0E+02	4.4E+02	2.1E+04	2.1E+04	4.4E+05
1.7E+24	1.7E+24	2.1E+25	7.3E+03	1.0E+19	1.0E+19	4.4E+19	-	-	-
9.5E+03	9.5E+03	1.2E+05	6.5E+04	7.3E+02	7.3E+02	3.1E+03	1.5E+05	1.5E+05	3.1E+06
1.9E+04	1.9E+04	2.4E+05	5.7E+03	3.1E+01	3.1E+01	1.3E+02	6.3E+03	6.3E+03	1.3E+05
2.7E+06	2.7E+06	3.4E+07	2.1E+05	5.2E+03	5.2E+03	2.2E+04	1.0E+06	1.0E+06	2.2E+07
5.3E+05	5.3E+05	6.6E+06	1.1E+05	1.0E+03	1.0E+03	4.4E+03	2.1E+05	2.1E+05	4.4E+06
5.9E+04	5.9E+04	7.4E+05	2.3E+04	1.0E+02	1.0E+02	4.4E+02	2.1E+04	2.1E+04	4.4E+05
5.0E+03	5.0E+03	6.4E+04	1.7E+03	7.3E+00	7.3E+00	3.1E+01	1.5E+03	1.5E+03	3.1E+04
5.4E+21	5.4E+21	6.8E+22	2.3E+04	1.0E+19	1.0E+19	4.4E+19	-	-	-
2.9E+04	2.9E+04	3.7E+05	7.2E+02	3.1E+00	3.1E+00	1.3E+01	6.3E+02	6.3E+02	1.3E+04
18,000	18,000	>S	11,000	100	100	430	20,000	20,000	430,000
22,000	22,000	>S	14,000	390	390	1,700	79,000	79,000	1,700,000
>S	>S	>S	>S	100	100	440	21,000	21,000	440,000
>S	>S	>S	>S	150	150	620	30,000	30,000	620,000

TPH Fraction Composition (Weight Fraction)

Fuel Fractions	Site-Specific Data			Generic Weight Fraction Data		
	Raw Data mg/kg (ppm)	Adjusted Data mg/kg (ppm)	Weight Fraction	Gasoline	Diesel	Mineral Oil
Aliphatic C5-C6			0.00E+00	2.06E-01	0.00E+00	0.00E+00
Aliphatic >C6-C8	47	47	4.39E-03	2.20E-01	0.00E+00	0.00E+00
Aliphatic >C8-C10	2830	2830	2.64E-01	9.00E-02	2.00E-02	1.00E-03
Aliphatic >C10-C12	2450	2450	2.29E-01	3.00E-02	7.00E-02	3.00E-03
Aliphatic >C12-C16			0.00E+00	0.00E+00	3.50E-01	1.60E-01
Aliphatic >C16-C21			0.00E+00	0.00E+00	3.40E-01	7.00E-01
Aliphatic >C21-C34			0.00E+00	0.00E+00	0.00E+00	0.00E+00
Aromatic >C8-C10	2780	2117	1.98E-01	9.02E-02	2.52E-03	1.00E-03
Aromatic >C10-C12	2370	2357	2.20E-01	2.25E-02	7.40E-03	1.00E-03
Aromatic >C12-C16	240	240	2.24E-02	0.00E+00	8.00E-02	7.00E-03
Aromatic >C16-C21			0.00E+00	0.00E+00	1.20E-01	8.00E-02
Aromatic >C21-C34			0.00E+00	0.00E+00	0.00E+00	4.60E-02
n-Hexane	0.0	0.0	0.00E+00	2.40E-02	0.00E+00	0.00E+00
Benzene			0.00E+00	2.50E-02	2.90E-04	0.00E+00
Toluene			0.00E+00	1.20E-01	1.80E-03	0.00E+00
Ethylbenzene			0.00E+00	2.00E-02	6.80E-04	0.00E+00
Total Xylenes	49.0	49.0	4.57E-03	1.10E-01	5.00E-03	0.00E+00
1,2,4-trimethylbenzene	479.0	479.0	4.47E-02	3.00E-02	0.00E+00	0.00E+00
1,3,5-trimethylbenzene	135.0	135.0	1.26E-02	9.80E-03	1.80E-03	0.00E+00
Naphthalene	12.8	12.8	1.19E-03	2.50E-03	2.60E-03	0.00E+00
Total	11393	10717	1.00	1.00	1.00	1.00

Use one of the following two options for site-specific TPH RBC calculations.

OPTION 1: **Estimate TPH Fractions**

(1) Enter TPH data (mg/kg or ppm) into the cell on the right. →

(2) Enter BTEX, TMB, and naphthalene data in the "Raw Data" column above.

(3) Use one of the buttons at the right to identify the predominant product.

Gasoline Estimate

Diesel Estimate

OR

OPTION 2: **Use VPH and EPH Results**

(1) Enter TPH fraction and constituent data in the "Raw Data" column above.

(2) Use one of the buttons at the right to identify the predominant product.

Gasoline Fractions

Non-Gas Fractions

For references, please refer to *Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites* (DEQ, 2003).

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX H
SUBSLAB DEPRESSURIZATION SYSTEM SCHEMATIC

HALEY ALDRICH

www.haleyaldrich.com

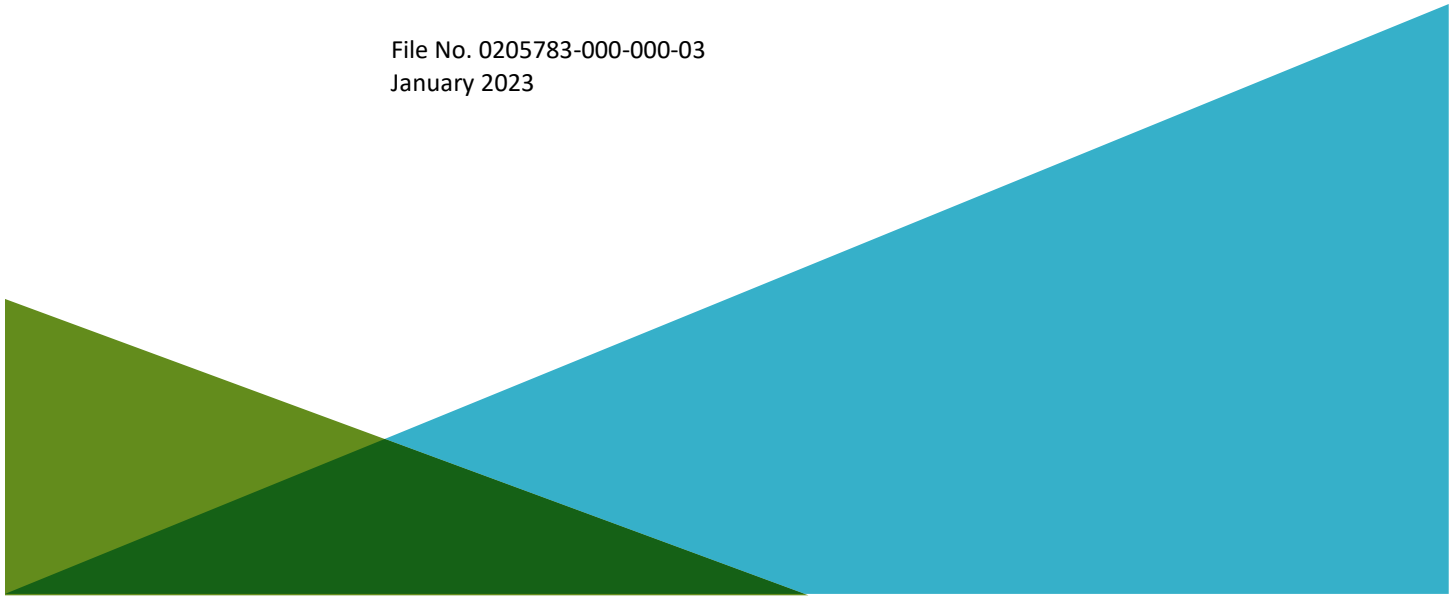
REPORT ON

ARCOA BUILDING
PROPOSED SSDS DESIGN AND IMPLEMENTATION PLAN
1006 SE GRAND AVENUE
PORTLAND, OREGON

by
Haley & Aldrich, Inc.
Portland, Oregon

for
Point Source Solutions, Inc.
Vancouver, Washington

File No. 0205783-000-000-03
January 2023



HALEY & ALDRICH, INC.
6420 S Macadam Avenue
Suite 100
Portland, OR 97239
503.620.7284

30 January 2023
File No. 0205783-000-000-03

Point Source Solutions
5317 NE St. Johns Road, Suite D
Vancouver, Washington 98661

Attention: Gil Cobb
Jeff Jackman

Subject: Proposed SSDS Design and Implementation Plan
Arcoa Building
1006 SE Grand Avenue
Portland, Oregon
ECSI# 6199

Dear Gil Cobb:

Haley & Aldrich, Inc, (Haley & Aldrich) has prepared this proposed Sub-Slab Depressurization System (SSDS) Design and Implementation Plan on behalf of Point Source Solutions (Point Source) for the Arcoa Building property located at 1006 SE Grand Avenue, in Portland, Oregon (site). This document outlines recommendations for implementing a SSDS at the site, including key system parameters and assumptions, and provides guidance on assessing baseline environmental conditions and conducting ongoing monitoring to address elevated levels of chlorinated volatile organic compounds (cVOCs), primarily chloroform, and other contaminants of concern (COCs) in the sub-slab soil gas.

Review of Previous Environmental Reports

Previous environmental investigations at the site have identified cVOCs and other COCs in the sub-slab soil gas and indoor air at concentrations that exceed Oregon Department of Environmental Quality (DEQ) Risk-Based Concentrations (RBCs) applicable to the site. Haley & Aldrich was provided with several reports documenting these investigations, including a 2021 Site-Specific Risk-Based Correction Action Determination (Point Source, 2021), and a 2022 memorandum summarizing recent soil, soil gas, sewer-gas, and indoor air sampling activities (Point Source, 2022b).

We observed that soil gas to indoor air attenuation factors for chloroform varied widely between the sampling events (Point Source, 2021, 2022b), suggesting that indoor air quality in the building may be affected by factors unrelated to vapor intrusion of soil gas. Furthermore, open floor drains, cleanouts, and sumps observed in the site building during an August 2022 site visit may be contributing to the chloroform concentrations in indoor air, as 14 micrograms per cubic meter (µg/m^3) chloroform was detected in a sewer gas sample collected from the building's sanitary line on 12 May 2022. For context, concentrations of chloroform in indoor air samples ranged from 0.22 to 20 µg/m^3 in samples collected

from 2020 to 2022 (Point Source, 2022b) and the DEQ RBC for chloroform in indoor air for occupational receptors is 0.53 µg/m^3 (DEQ, 2018). Sewer gases from improperly constructed or maintained drain lines (including sump pumps) can often be contributing sources to odors and increased concentrations of VOCs. Further site characterization may provide additional insight into the nature of chloroform and other COC sources within the building.

Following the August 2022 site visit and review of the previous environmental documents provided by Point Source, Haley & Aldrich recommended installation of a vapor extraction and monitoring point network in the southwest corner of the site building basement. This area has been identified as containing the highest concentrations of COCs, including chloroform, in the sub-slab soil gas.

Extraction and Monitoring Point Installation

On 5 and 6 December 2022, Point Source oversaw the installation of four 1-inch sub-slab vapor monitoring points (MP-1 through MP-4) and one 2-inch vapor extraction point (EXT-1) by Cascade Environmental (Cascade). Haley & Aldrich provided additional supervision and technical support. The team encountered a silty-clayey layer at the base of the slab of varying thickness, followed by sandy-gravelly material, which was targeted for the screened intervals of EXT-1 and MP-1 through MP-3. MP-4 was screened within the silty-clayey material. Point Source has prepared boring and well installation logs, which are included in Appendix A (Point Source, 2022c). The vapor extraction and monitoring point network was installed as follows:

- EXT-1 was placed where previous investigations identified the highest concentrations of COCs in the sub-slab soil gas (Point Source, 2021, 2022b).
- MP-1 through MP-3 were installed in a radial pattern around EXT-1 as permanent vapor monitoring points.
- MP-4 was placed near EXT-1 to provide a discrete vapor monitoring point representing the silty-clayey confining layer present underneath the building basement slab.

Proposed SSDS Design and Recommendations

The proposed SSDS design is based upon our review of the documents provided by Point Source and the soil lithology observed during installation of the vapor extraction and monitoring point network (Point Source, 2021, 2022a, 2022b, 2022c). The purpose of an SSDS is to create a negative pressure field directly under the building (in relation to the building ambient pressure). This negative pressure field becomes a “sink” for any gases present in the vicinity of the structure. VOCs caught in the advective sweep of this negative pressure field are collected and piped to an ambient air discharge point. The SSDS is not intended to remediate the soil or groundwater beneath the building. Its design objective is to prevent soil gases from infiltrating the building.

The proposed vapor intrusion mitigation approach consists of a hybrid SSDS consisting of a vapor extraction point (EXT-1), below-grade conveyance piping, hybrid active-passive SSDS manifold, and a

vent riser fixed to the building exterior. The hybrid active-passive SSDS design allows the system to operate in either an active or a passive mode, as suitable to the site conditions.

Figure 1 depicts the proposed below-grade and above-ground conveyance piping routing from EXT-1 to the vent riser. Figure 2 presents the proposed construction details of the interior/exterior vent riser piping, hybrid active-passive SSDS manifold, and its connection to EXT-1. Figure 3 presents the as-built construction details of the vapor extraction point EXT-1 and the vapor monitoring points MP-1 through MP-4. Key elements of the proposed SSDS are outlined below:

- An inspection of the building foundation will be conducted, with particular attention paid to identifying all potential entry routes for VOC-contaminated soil gases, such as cracks in concrete walls or foundations/slabs, construction joints between walls and slabs, open sumps, etc. Any cracks (or other possible entry routes) will be sealed to prevent entrance of soil gas, and to enhance the sub-slab negative pressure field.
- A sampling port will be installed on the EXT-1 riser.
- Below-grade and above-ground conveyance piping will connect EXT-1 to a specially designed hybrid active-passive SSDS manifold, allowing for operation of the SSDS either in active or passive modes with the use of inline isolation ball valves.
- The active manifold branch line will include an isolation ball valve and an in-line 120-volt low-flow/moderate pressure in-line fan (e.g., RadonAway® type or approved equivalent) capable of providing up to 50 standard cubic feet per minute (scfm) air flow rate at a static differential pressure of 20.0 inches in water column (H_2O) (Figure 2).
- The passive manifold branch line will also include an isolation ball valve (Figure 2).
- Both the active and passive manifold branch lines will be equipped with a vacuum indicator and a sample port.
- A sample port for monitoring the system performance and collection of vent-stack discharge vapor sample(s) will be placed between EXT-1 and the hybrid active-passive SSDS manifold.
- The SSDS manifold will be connected to the vent riser, which will terminate at least 5 feet above the roof line, and 10 feet from any operable window, door, or air intakes.
- The below-grade conveyance piping will be constructed of 2-inch-diameter Schedule 80 polyvinyl chloride (PVC).
- The above-ground conveyance piping, hybrid active-passive SSDS manifold, and vent riser will be constructed of 4-inch-diameter Schedule 80 PVC.
- All conveyance piping will maintain a slight grade toward EXT-1 to assist with drainage of condensate.
- Final routing of the conveyance piping and vent riser will limit abrupt bends to prevent frictional head losses.

The vapor monitoring points (MP-1 through MP-4) will be constructed as permanent sub-slab sampling ports for collection of soil gas. If, after a period of operation, the SSDS has not reduced concentrations of COCs in the soil gas to an acceptable level, the existing vapor extraction and monitoring point network will be utilized to perform an active pilot test in the future using a high-flow/high-pressure capacity blower. The pilot test would provide additional sub-slab vacuum propagation data to help determine the design of the most suitable and cost-effective mitigation strategy, as well as to better quantify the overall magnitude and size of the required mitigation system.

SSDS Startup and Performance Monitoring

Prior to activation of the active branch of the SSDS manifold, an equipment shake-down will be performed to ensure that all system components are properly installed and fully functional. At a minimum, these activities will include:

- A visual inspection of all accessible system components;
- Ensuring all valves are set to the proper position; and
- Recording baseline sub-slab pressure/vacuum and VOC concentrations at the manifold sampling ports, EXT-1, and MP-1 through MP-4 using properly calibrated field instruments.

The active branch of the SSDS manifold will be activated once these shake-down tasks are completed. The system startup will be performed as follows:

- The in-line fan of the SSDS manifold active branch will be turned on.
- The vacuum indicator on the SSDS manifold will be visually inspected and the vacuum readings will be recorded to ensure that the in-line fan is operating as intended. If the selected fan provides variable speed operation, the chosen settings should not result in an operating vacuum that exceeds the manufacturer recommendations.
- Instantaneous VOC concentrations will be measured at the manifold sampling ports with a photoionization detector (PID).
- Sub-slab pressure/vacuum at EXT-1 and MP-1 through MP-4 will be monitored and recorded using a hand-held Digital Manometer/Magnehelic Differential Pressure Gauge connected to the barbed fittings.
- Ambient pressure in the vicinity of EXT-1 and outside the site building will also be monitored.
- As part of the system startup, a thorough leak testing (e.g., smoke testing) of the SSDS conveyance piping, hybrid active-passive SSDS manifold, and vent riser piping will be performed to ensure that there are no system leaks. Leak testing of the SSDS interior manifold located at the discharge (pressure) side of the fan is recommended to be performed during every site check event.

The vapor extraction/sub-slab depressurization radius of influence (ROI) induced at EXT-1 can be estimated by observation of pressure readings at the vapor monitoring points. In general, a subsurface

vacuum influence of greater than 0.01 in. H_2O. indicates that conditions are adequate for vapor mitigation. Recording of sub-slab pressure/vacuum and VOC readings will continue until approximate equilibrium has been reached and the readings are relatively stabilized. The fan will be adjusted to achieve the target sub-slab differential pressure reading. Once equilibrium has been reached, the in-line fan will be shut off and the SSDS manifold main gate valve will be closed to isolate EXT-1 from the vent riser piping for collection of baseline soil gas and indoor air samples. The purpose of collecting these baseline samples is to provide an initial reference point for evaluation of the system performance over time. The samples will be collected as follows:

- Soil gas samples will be collected from sampling ports located at the EXT-1 and MP-1 through MP-4 wellheads.
- Concurrently with the soil gas sampling, an indoor air sample will be collected in the vicinity of EXT-1.
- At a minimum, the samples will be analyzed by a laboratory accredited in the State of Oregon for cVOCs, including chloroform, carbon tetrachloride, tetrachloroethene (PCE), trichloroethene (TCE), *cis*-1,2-dichloroethene (*cis*-1,2-DCE), *trans*-1,2-dichloroethene (*trans*-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride by the United States Environmental Protection Agency (USEPA) Method TO-15.

Following collection of these baseline samples, the SSDS manifold main gate valve will be opened and the active branch of the SSDS manifold will be re-activated. If the initial operational data collected during system startup indicate that the in-line fan's static differential pressure capacity is inadequate to allow vapor/air extraction from EX-1 at adequate (e.g., measurable) air flow rates, the fan will be shut off and the SSDS manifold passive branch line will be opened using the isolation ball valve (while the active branch line's isolation ball valve is closed) to allow the system to operate in a passive mode.

The system should not need intensive operation and maintenance for continued operation; however, monitoring will be frequent during the initial six months of operation to verify system performance objectives are being met and to identify steady-state operating conditions. Weekly site checks to verify proper operation of the SSDS are recommended during the first month of operation followed by monthly site checks. After an operational period of three to six months, additional sub-slab soil gas and indoor air sample collection using the protocol described above will be performed to evaluate the system performance. Subsequent performance monitoring and sampling events will be performed as required by the DEQ.

If the future performance monitoring and sampling indicates that the sub-slab soil gas and indoor air concentrations have been reduced below applicable RBCs, the active branch of the SSDS manifold will be shut off and the passive branch line will be opened to allow the system to operate in a passive mode. This will reduce the long-term operation and maintenance costs for the site owner while continuing to reduce the COC concentrations in the sub-slab soil gas. Additional performance monitoring and sampling would be required to evaluate the effectiveness of the passive SSDS operation in reducing the COC concentrations in the sub-slab soil gas.

Limitations

The proposed SSDS design and implementation plan provided herein has been prepared for Point Source. Work completed for this project was performed in accordance with generally accepted professional practices relating to the nature of work completed at similar sites. It is intended for the exclusive use of Point Source for specific application to the site, or parties authorized by Point Source. No other warranty, express or implied, is made.

We understand that Point Source will construct the proposed SSDS to the specifications outlined in this document. Haley & Aldrich is not responsible for implementation of the proposed design, performing the system shake-down and startup protocol, verifying compliance with the State (Oregon) and local (City of Portland) building and safety codes, performance monitoring, and/or for the future operation and maintenance of the system.

Haley & Aldrich can provide no guarantee that the proposed SSDS will be successful in mitigating COCs present in soil gas and indoor air at the site since the hybrid SSDS design presented herein has been developed without performing any pre-design pilot/communication testing at the site. As noted above, this system has been designed such that the vapor extraction and monitoring point network may be utilized to perform an active pilot test in the future using a high-flow/high-pressure capacity blower to help determine a more appropriate mitigation strategy, should this become necessary.

This document is not intended to draw conclusions about potentially complete exposure pathways or for evaluation and quantification of the vapor intrusion related risks at the site.

We appreciate the opportunity to provide engineering services on this project. Please do not hesitate to contact us if you have any questions or comments.

Sincerely yours,

HALEY & ALDRICH, INC.

Andrew T. Klopfenstein, E.I.T., R.G.
Senior Technical Professional – Geology

Omer Uppal
Technical Expert – Manufacturing

EXPIRES: 06/30/2023

Andrew S. Kaparos, P.E.
Senior Engineer

Attachments:

Figure 1 - Proposed SSDS Layout
Figure 2 - Proposed SSDS Vent Riser and Manifold Details
Figure 3 - Proposed SSDS Vapor Extraction and Monitoring Point Construction Details

Appendix A - Boring and Well Installation Logs

https://haleyaldrich.sharepoint.com/sites/PortlandVancouverEnvironmental/Shared Documents/Arcoa Building SSDS Design (205783-000)/0205783-000_Arcoa Building SSDS Design/Deliverables/Reports/Arcoa SSDS Report - Final/2023_0130_HAI_ArcoaSSDSReport_F.docx

References

1. DEQ 2018. Excel® Spreadsheet for Risk Based Concentrations for Individual Chemicals. May 2018.

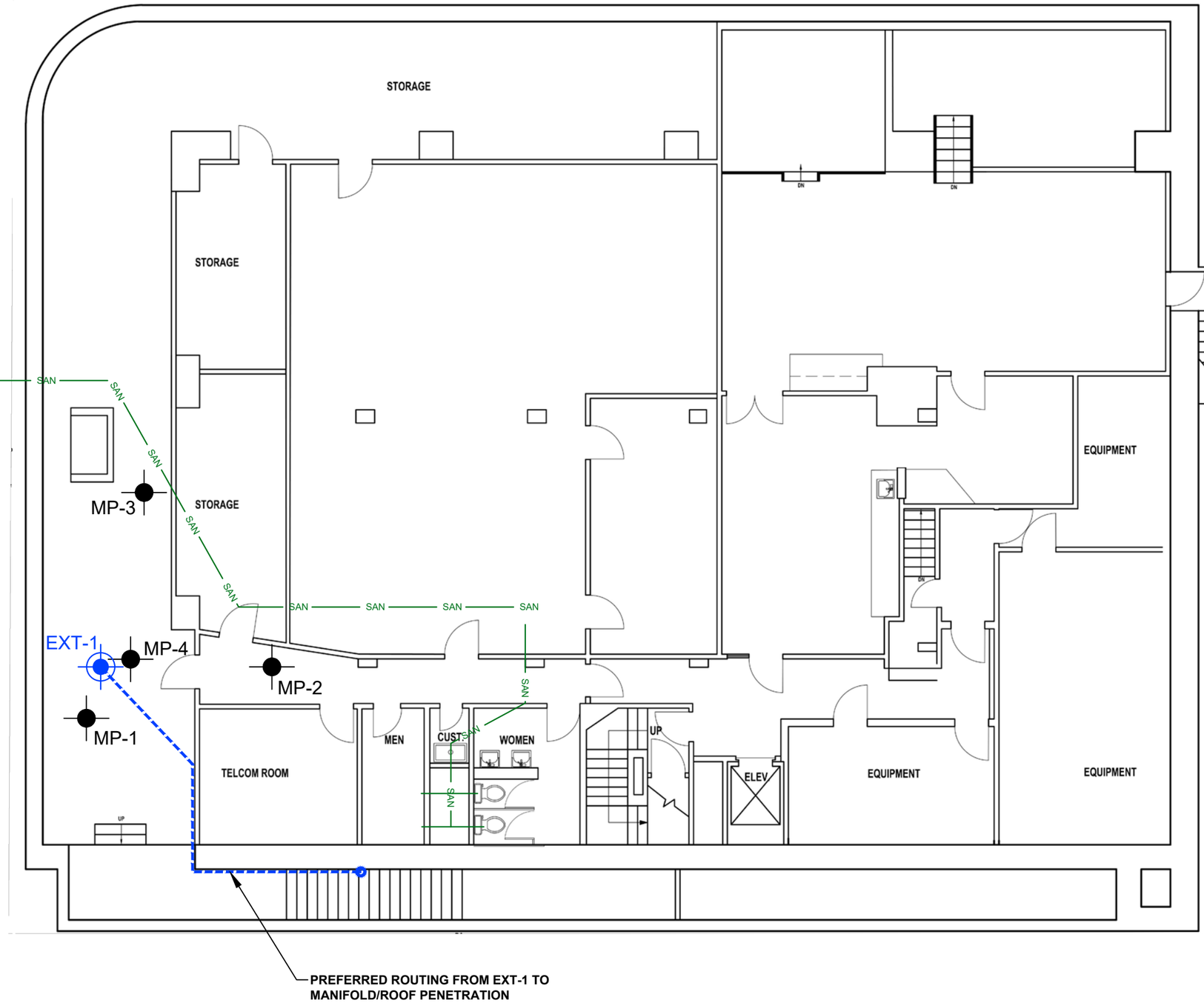
2. Point Source Solutions, 2021. Site-specific Risk-based Corrective Action Determination. 18 February 2021.

3. Point Source Solutions, 2022a. Boring Logs. 6 April 2022.

4. Point Source Solutions, 2022b. June 2022 Project Update. 6 June 2022.

5. Point Source Solutions, 2022c. Boring and Well Installation Logs. 6 December 2022.

FIGURES



LEGEND

- EXT-1 — DESIGNATION, LOCATION AND PROPOSED LOCATION OF EXTRACTION WELL
- MP-1 — DESIGNATION, LOCATION AND PROPOSED LOCATION OF VAPOR MONITORING POINT
- PROPOSED SSDS PIPING
- SAN — EXISTING SANITARY SEWER LINE (APPRX.)

NOTES

1. BACKGROUND FROM ELECTRONIC CAD IMAGE ENTITLED "BASEMENT PLAN" DATED 2 APRIL 2019 FROM WRIGHT ARCHITECTURE.

N

0 10 20
SCALE IN FEET

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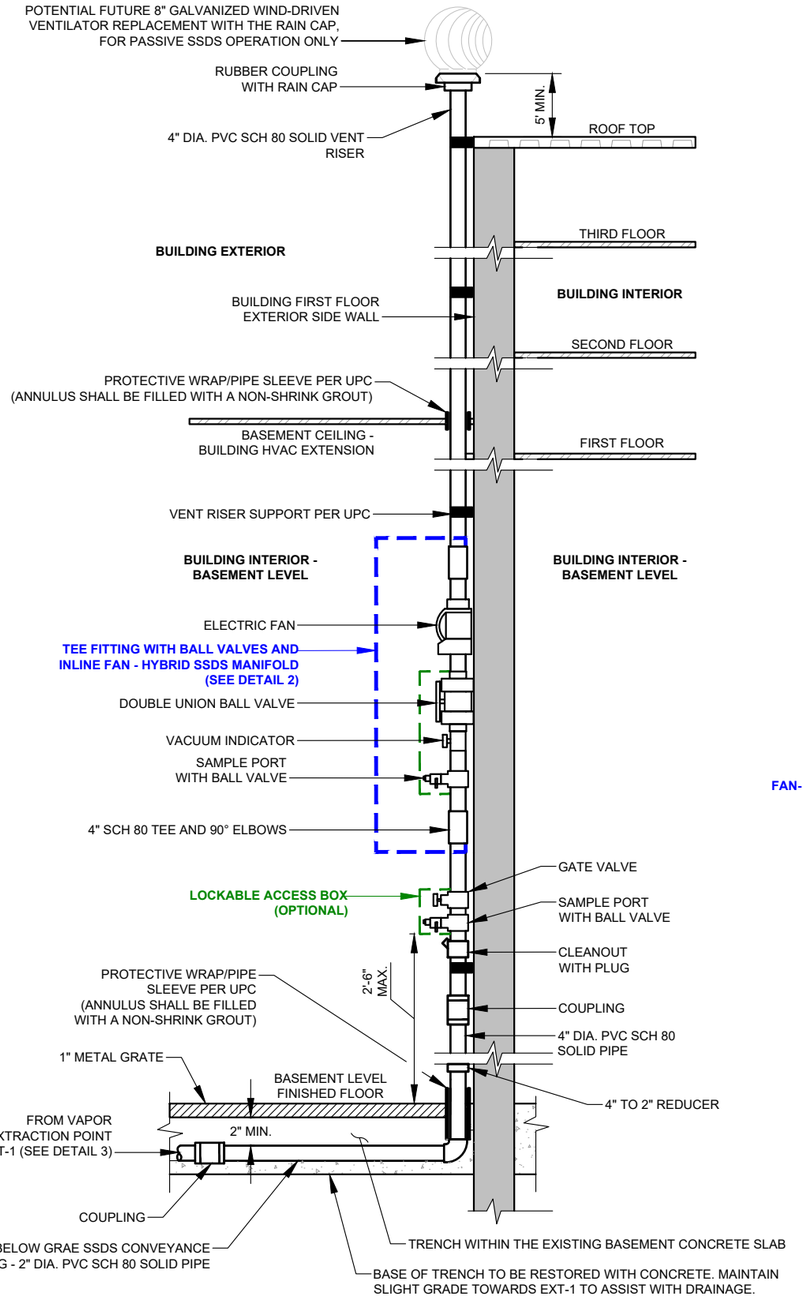
ARCOA BUILDING
1006 SE GRAND AVENUE
PORTLAND, OREGON 97214

PROPOSED SSDS LAYOUT

SCALE: AS SHOWN
JANUARY 2023

FIGURE 1

Saved by: KPOSTOLOWSKI Printed: 1/19/2023 2:45 PM Sheet: FIG 1
\\HALEYALDRICH.COM\SHARE\PDX_DATA\NOTEBOOKS\0205783-000_ARCOA BUILDING SSDS DESIGN\CAD\0205783_000_0002_SITE PLAN.DWG

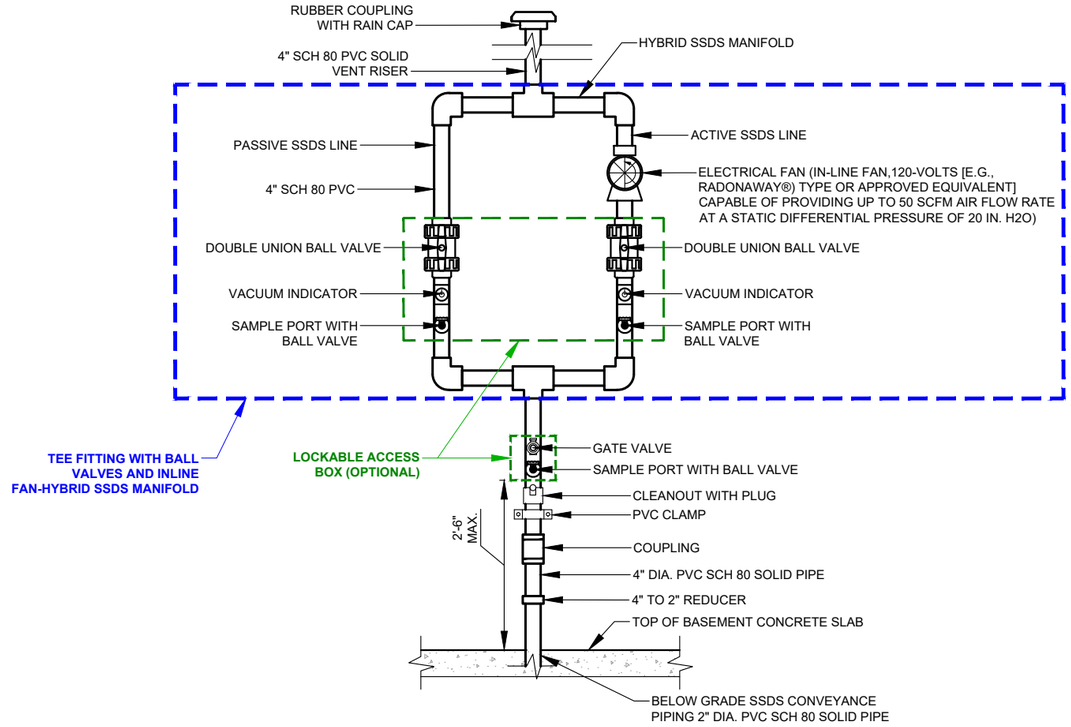


HYBRID SSDS SYSTEM INTERIOR/ EXTERIOR VENT RISER PIPING DETAILS

1 **SCALE: NTS**

NOTES:

1. TERMINATION OF BUILDING VENT RISER SHALL BE PERFORMED AS FOLLOWS:
   A. MINIMUM 10-FOOT AWAY FROM, AND 5-FEET ABOVE ANY OPENABLE WINDOW, DOOR, OPENING, AIR INTAKE AND/OR VENT SHAFT.
2. MOUNTING SUPPORT FOR VENT RISER PIPING SHALL BE SPECIFIED BY CONTRACTOR AND APPROVED BY ARCHITECT, STRUCTURAL ENGINEER, AND THE OWNER PRIOR TO INSTALLATION.
3. PENETRATIONS THROUGH CONCRETE SLAB AND FRAMING, BASEMENT CEILING (EXTERIOR GRADE), GRADE BEAM PILES, OR FOOTINGS SHALL BE PERMITTED ONLY WITH REVIEW AND APPROVAL OF THE ARCHITECT, STRUCTURAL ENGINEER, AND THE OWNER. PENETRATIONS SHALL BE THOROUGHLY SEALED BY CONTRACTOR.
4. ALL PIPING THROUGH CONCRETE SHALL BE ENCASED IN APPROPRIATE PROTECTIVE WRAP/PIPE SLEEVE PER THE UNIFORM PLUMBING CODE (UPC).
5. PROTECTIVE WRAP/PIPE SLEEVE DESIGN AND TRANSITION FITTINGS SHALL BE SUBMITTED BY CONTRACTOR AND APPROVED BY ARCHITECT, STRUCTURAL ENGINEER, AND THE OWNER PRIOR TO INSTALLATION.
6. VENTILATION PIPES SHALL BE CLEARLY MARKED TO INDICATE THAT PIPE MAY CONTAIN POTENTIALLY HARMFUL VAPORS. PIPES SHOULD BE MARKED NEAR THEIR TERMINATION POINT AND AT FIVE-FOOT INTERVALS ALONG THE REMAINDER OF THE VENTILATION PIPE.
7. POTENTIAL ENTRY ROUTES FOR SOIL GASES, SUCH AS CRACKS IN CONCRETE WALLS OR FOUNDATIONS/SLABS, CONSTRUCTION JOINTS BETWEEN WALLS AND SLABS, OR OPEN SUMPS SHALL BE SEALED DURING INSTALLATION.



HYBRID SSDS MANIFOLD DETAILS (FRONT VIEW)

2 **SCALE: NTS**

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ARCOA BUILDING
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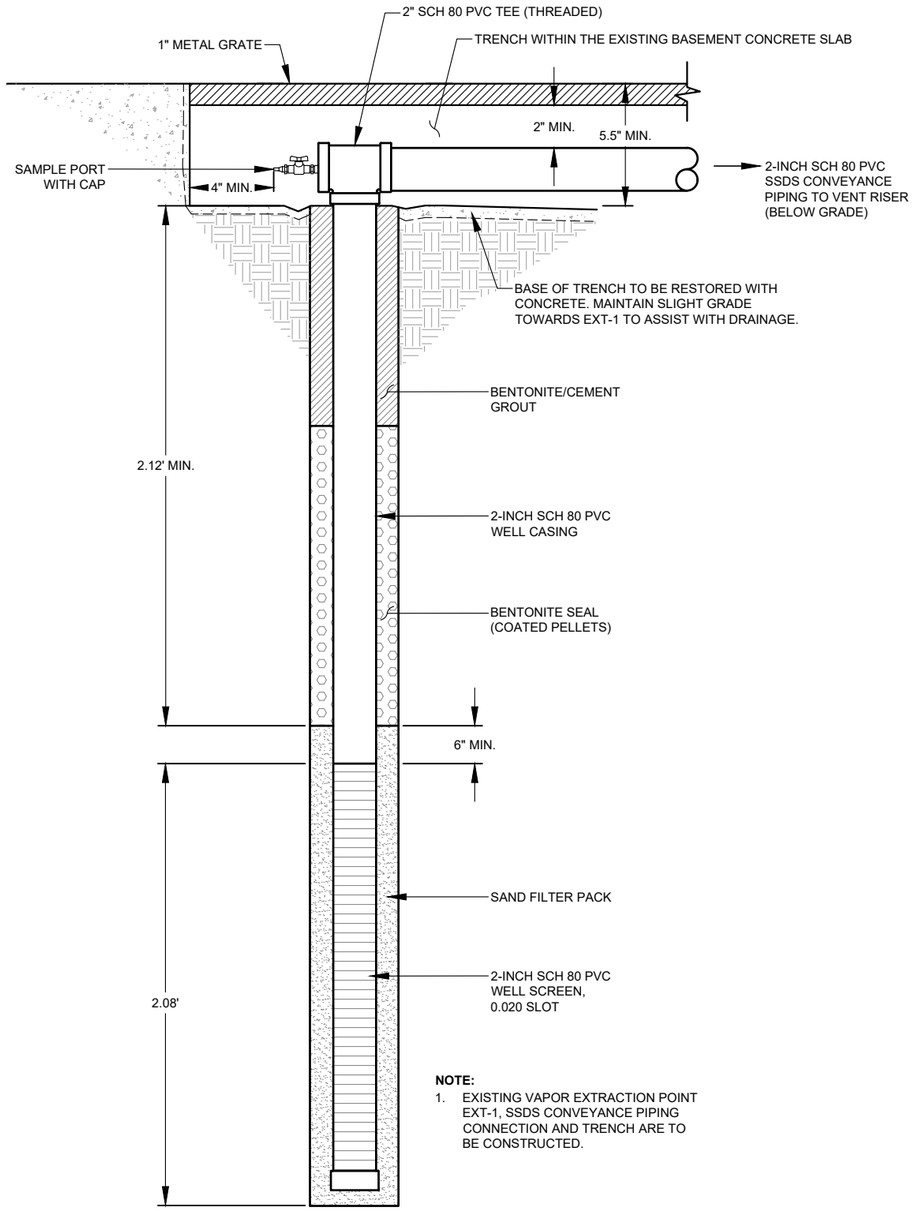
PORTLAND, OREGON 97214

PROPOSED SSDS VENT RISER AND MANIFOLD DETAILS

SCALE: NTS
JANUARY 2023

FIGURE 2

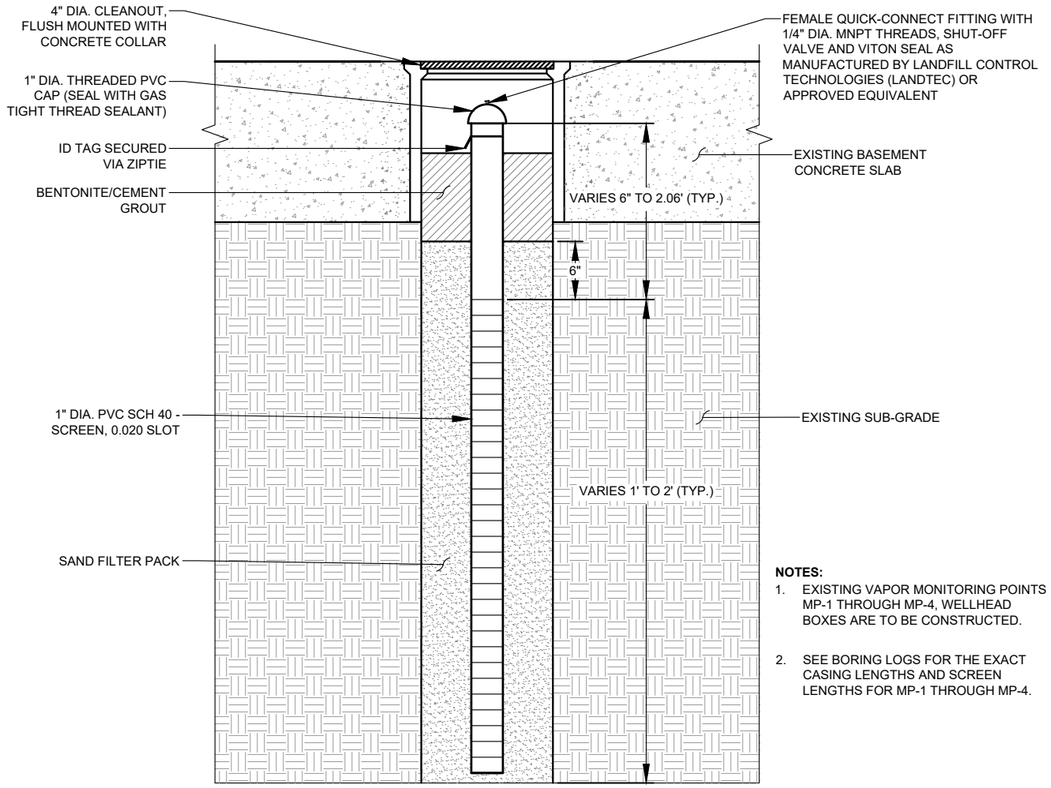
Saved by: KPOSTOLOWSKI Printed: 1/25/2023 9:55 AM Sheet: FIG 2
\\HALEYALDRICH.COM\SHARE\PDX_DATA\NOTEBOOKS\0205783-000_ARCOA BUILDING SSDS DESIGN\CAD\0205783_000_0001_DETAILS.DWG



NOTE:

1. EXISTING VAPOR EXTRACTION POINT EXT-1, SSDS CONVEYANCE PIPING CONNECTION AND TRENCH ARE TO BE CONSTRUCTED.

3 VAPOR EXTRACTION POINT EXT-1 CONSTRUCTION DETAILS
SCALE: NTS



NOTES:

1. EXISTING VAPOR MONITORING POINTS MP-1 THROUGH MP-4, WELLHEAD BOXES ARE TO BE CONSTRUCTED.
2. SEE BORING LOGS FOR THE EXACT CASING LENGTHS AND SCREEN LENGTHS FOR MP-1 THROUGH MP-4.

4 TYPICAL SSDS VAPOR MONITORING POINT (MP) CONSTRUCTION DETAILS (MP-1 THROUGH MP-4)
SCALE: NTS

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ARCOA BUILDING
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PORTLAND, OREGON 97214

PROPOSED SSDS VAPOR EXTRACTION AND MONITORING POINT CONSTRUCTION DETAILS

SCALE: NTS
JANUARY 2023

FIGURE 3

Saved by: KPOSTOLOWSKI Printed: 1/20/2023 6:28 PM Sheet: FIG 3
\\HALEYALDRICH.COM\SHAREPDX_DATA\NOTEBOOKS\0205783-000_ARCOA BUILDING SSDS DESIGN\CAD\0205783_000_0001_DETAILS.DWG

APPENDIX A
Boring and Well Installation Logs

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BORING AND WELL LOG LEGEND

SURFACE
- ASPHALT
- CONCRETE
- FILL
- TOPSOIL
- AIR
- ICE

USCS
- Well-graded GRAVEL (GW)
- Poorly graded GRAVEL (GP)
- Silty GRAVEL (GM)
- Clayey GRAVEL (GC)
- Silty, Clayey GRAVEL (GC-GM)
- Well-graded GRAVEL with silt (GW-GM)
- Poorly graded GRAVEL with silt (GP-GM)
- Well-graded GRAVEL with clay (GW-GC)
- Poorly graded GRAVEL with clay (GP-GC)
- Well-graded SAND (SW)
- Poorly graded SAND (SP)
- Silty SAND (SM)
- Clayey SAND (SC)
- Silty, Clayey SAND (SC-SM)
- Well-graded SAND with silt (SW-SM)
- Poorly graded SAND with silt (SP-SM)
- Well-graded SAND with clay (SW-SC)
- Poorly graded SAND with clay (SP-SC)
- SILT (ML)
- Lean CLAY (CL)
- Silty CLAY (CL-ML)
- Organic SOIL (OL)
- Elastic SILT (MH)
- Fat CLAY (CH)
- Organic SOIL (OH)
- Organic SOIL (OL/OH)
- PEAT (PT)
- BEDROCK
- IGNEOUS Rock
- METAMORPHIC Rock
- SEDIMENTARY Rock
- WATER

Non-USCS
- Gravel
- Sand
- Silt
- Clayey Silt
- Silt & Clay
- Clay & Silt
- Silty Clay
- Clay
- Boulders
- Cobbles
- Peastone
- Glacial Till
- Iron Ore
- Wood
- Peat
- Saprolite
- Ash
- Waste

Volume Descriptors
- Trace = <5%
- Few = 5-10%
- Little = 15-25%
- Some = 30-45%
- Mostly = >=50%

Water Levels
- Water Level During Drilling
- Water Level at End of Drilling/in Completed Well

Well/Boring Completion
- Cap
- Riser
- Screen
- End Plug
- Annular Seal
- Sanitary Seal (Bentonite Slurry/Chips/Pellets/Powder, Other)
- Filter Pack (Sand, Gravel, Other)
- Backfill

Sample Type
- GR — Grab
- EN — Encore
- SS — Split Spoon
- SH — Shelby Tube
- CO — Core Barrel
- DP — Direct Push
- ID — Lab Sample and ID

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. EXT-1
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/6/22**	Boring Depth (ft):	**5.16**	Well Depth (ft):	**5.16**
Drilling End Date:	**12/6/22**	Boring Diameter (in):	**4.00**	Well Diameter (in):	**2**
Drilling Company:	**Cascade**	Sampling Method(s):	**N/A**	Screen Slot (in):	**0.020**
Drilling Method:	**Hand Auger Rig**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 80 PVC**
Drilling Equipment:	**Hand Auger**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 80 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Concrete			0
								(1.16') Silty CLAY (CL-ML); some coarse gravel, brown	0		
								(2.58') Cobbles: with gravel			
								(3') Cobbles: with gravel. Refusal at 5.16'	0		
5								(5.16') Boring terminated			5
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Screen set from 3.08' bgs to 5.16' bgs

point source solutions	**Client:** Arcoa Partners LLC **Project:** 1006 SE Grand Ave **Address:** 1006 SE Grand Ave, Portland, OR	**WELL LOG** **Well No.** MP-1 **Page:** 1 of 1

Drilling Start Date:	**12/6/22**	Boring Depth (ft):	**3.75**	Well Depth (ft):	**3.75**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**2.25**	Well Diameter (in):	**1**
Drilling Company:	**Cascade**	Sampling Method(s):	**N/A**	Screen Slot (in):	**0.020**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe 420M**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Concrete			0
								(1.16') Silty CLAY (CL-ML); some silt, brown	0		
								(1.75') Silty SAND with gravel (SM); some coarse gravel, brown	0		
								(2.25') Silty CLAY (CL-ML); brown (2.5') Silty CLAY (CL-ML); brown, coarse gravel in shoe. Refusal in cobbles at 3.75' bgs	0		
								(3.75') Boring terminated			
5											5
10											10

NOTES: Hole precleared on 12/2/22. Set screen from 1.75' to 3.75' bgs. Riser stubbed up 1' above slab. Sand pack from 1.5' to 3.75'. Bentonite seal from 1.5' to 0.33'.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. MP-2
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/6/22**	Boring Depth (ft):	**6.25**	Well Depth (ft):	**6.25**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**2.25**	Well Diameter (in):	**1**
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**	Screen Slot (in):	**0.020**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe 420M**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder/Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0				DP			1.80	(0') Concrete			0
								(1') Silty SAND (SM); brown	0		
				DP			2.70	(3') Silty SAND (SM); brown	0		
								(4') SILT (ML); brown	0		
5								(5') Elastic SILT (MH); moist, brown	0		5
				DP				(6') No Recovery: cobble stuck in shoe. Refusal at 6.25'			
								(6.25') Boring terminated, progress refusal at 6.25' bgs			
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Set screen from 2' to 4' bgs. Riser stubbed up 1' above slab. Sand pack from 1.5' to 4' bgs. Bentonite seal from 0.67' to 1.5' bgs. Sealed with concrete from ground surface to 0.67' bgs.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. MP-3
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/7/22**	Boring Depth (ft):	**4.41**	Well Depth (ft):	**4.41**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**2.25**	Well Diameter (in):	
Drilling Company:	**Cascade**	Sampling Method(s):	**Direct Push**	Screen Slot (in):	**0.020**
Drilling Method:	**Direct Push**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Geoprobe 420M**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0				DP			2.25	(0') Concrete			0
								(0.67') Sandy SILT (ML); brown, with few concrete pieces	0		
								(1') Sandy SILT (ML); brown	0		
				DP			0.07	(3') Sandy SILT (ML); brown	0		
								(4.41') Boring terminated			
5											5
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Set screen from 2.41 to 4.41' bgs. Riser stubbed up 12" above slab. Sand pack from 1.91 to 4.41' bgs. Bentonite seal from 0.33' to 1.91' bgs.

point source solutions	Client: Arcoa Partners LLC	WELL LOG
	Project: 1006 SE Grand Ave	Well No. MP-4
	Address: 1006 SE Grand Ave, Portland, OR	Page: 1 of 1

Drilling Start Date:	**12/7/22**	Boring Depth (ft):	**2**	Well Depth (ft):	**2**
Drilling End Date:	**12/7/22**	Boring Diameter (in):	**4.00**	Well Diameter (in):	**1**
Drilling Company:	**Cascade**	Sampling Method(s):	**N/A**	Screen Slot (in):	**0.020**
Drilling Method:	**Hand Auger Rig**	DTW During Drilling (ft):	**N/A**	Riser Material:	**Sch 40 PVC**
Drilling Equipment:	**Hand Auger**	DTW After Drilling (ft):	**N/A**	Screen Material:	**Sch 40 PVC Slotted**
Driller:		Ground Surface Elev. (ft):	**N/A**	Seal Material(s):	**Bent. Powder**
Logged By:	**KF**	Location (Lat, Long):	**N/A**	Filter Pack:	**Sand Pack**

DEPTH (ft)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (ft)
0								(0') Concrete			0
								(0.91') Silty CLAY (CL-ML); brown	0		
								(2') Boring terminated. Beginning of cobble/gravel/sand layer			
5											5
10											10

NOTES: Hole precleared on 12/2/22 by Rush Locates. Set screen from 1' to 2' bgs. Riser stubbed up 1' above slab. Sand pack from 0.91' to 2.0' bgs. Bentonite seal from 0.41' to 0.91' bgs.

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

APPENDIX I
CONTAMINATED MEDIA MANAGEMENT PLAN

CONTAMINATED MEDIA MANAGEMENT PLAN

point source solutions, llc

FORMER ALLYN'S CLEANING & DYEING SITE
1006 SE GRAND AVE ET AL.
PORTLAND, MULTNOMAH COUNTY, OREGON
ECSI #6199

Report Prepared for and Reliance Provided to:

ARCOA PARTNERS LLC (AND/OR ITS SUCCESSORS)
301 N 5th Street
Tacoma, Washington 98403

Point Source Solutions Project No: OR190517-3
April 25, 2023

point source solutions, llc

5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
503.236.5885

1.0 INTRODUCTION

This Contaminated Media Management Plan (CMMP) has been prepared by Point Source Solutions (Point Source) for the Former Allyn's Cleaning & Dyeing site located at 1006 SE Grand Ave, 1024 SE Grand Ave, and 521 SE Taylor St, Portland, Oregon 97214 (Site). This CMMP is intended to assist the construction team in field identification and management of contaminated media (soil, fill material, groundwater) that could be encountered during site demolition/excavation work during site redevelopment.

This CMMP includes field protocol for identification, response actions, communications, removal, temporary storage or stockpiling, transportation, and treatment and/or disposal of contaminated media. Decisions pertaining to the identification and management of contaminated media will be made by the project environmental representative, property developer/owner and the Oregon Department of Environmental Quality (ODEQ).

A Site Location Map is included as **Figure 1**, a Topographic Map is included as **Figure 2**, and a Site Plan is included as **Figure 3**.

2.0 PROJECT SITE DESCRIPTION

The Site addresses are currently 1006 SE Grand Ave, 1024 SE Grand Ave, and 521 SE Taylor St, Portland, Oregon. The Site includes Multnomah County tax lots 1S1E02BC1300 (addressed as 1006 SE Grand Ave, 0.44 acres), 12001S1E02BC1100 (521 SE Taylor St, 0.23 acres), 1S1E02BC1200 (1024 SE Grand Ave, 0.21 acres), all lots totaling 0.88 acres. The Site is zoned EX-Central Employment and IG1 by the City of Portland. Site improvements include an asphalt-paved parking lot, a low-rise office building, convenience store, and auto repair shop.

3.0 PLANNED REDEVELOPMENT

Site redevelopment is not currently planned at this time. This CMMP has been prepared to assist contractors if removal of soil that does not qualify as clean fill is required during any redevelopment activities in the future.

4.0 PROJECT SITE CHARACTERIZATION

The purpose of this section is to provide information pertaining to environmental conditions associated with the project site.

4.1 BIBLIOGRAPHY

Information pertaining to environmental investigations in this section are based on several previous reports by others and recent investigation activities completed by Point Source. Previous environmental reports reviewed during the preparation of this CMMP are summarized as follows:

- *Subsurface Environmental Site Assessment by Chugwater on behalf of Mr. Vince Huffstutter (Project CW130201.1 dated March 12, 2013);*
- *Phase II Environmental Site Assessment by Point Source on behalf of Caldwell Properties LLC (Project #OR160930-4A, dated January 24, 2017);*
- *Risk Based Corrective Action Determination by Point Source on behalf of Caldwell Properties LLC (Project #OR160930-4B, dated May 22, 2017);*

- *Additional Investigation Data by Point Source (Project #OR161202-3D, dated September 11, 2018);*

- *May 2020 Project Update and Work Plan by Point Source (Project #OR190517-3, dated May 13, 2020);*

- *Site-Specific Risk-Based Corrective Action Determination by Point Source on behalf of Arcoa Partners LLC (Project #OR190517-3, dated February 18, 2021)*

Pertinent information relating to soil and groundwater conditions contained in these reports is summarized in the following sections.

4.2 SITE DEVELOPMENT HISTORY

The Site was occupied by Allyn's Cleaning and Dyeing from 1935 to 1960. Sanborn Fire Insurance Maps dated 1924 and 1950 indicate that the dry cleaning room was located near the southeast corner of the current Site main building. Based on the Sanborn Maps, the dry cleaning area was replaced by the current drive and parking lot by 1969.

4.3 SUBSURFACE CONDITIONS

4.3.1 Soil

Soil borings were advanced by Chugwater from December 2012 to February 2013. During the investigation, borings were advanced by Chugwater as follows:

- Soil borings SB1, SB2, SB7, and SB8 were advanced to depths of up 17.0 feet below ground surface (bgs) in an east to west transect originating from the former dry cleaner location at the SE corner of the Site building. **Staining and odor indicative of soil contamination was observed from approximately 6.5 feet bgs to 16.0 ft bgs.** Soil samples were collected at select intervals within each boring. Soil samples were analyzed for TPH-Dx, VOCs, and RCRA 8 Metals at ESN Northwest in Olympia, Washington. SB8 was analyzed for TPH-Dx, TPH-GX (Stoddard Solvent), and VOCs. Groundwater was not observed.

- Soil borings SB3 through SB6 were advanced in the eastern parking lot of the Site to depths of up to 15.0 feet bgs. No evidence of soil contamination was observed. Soil samples were collected at select intervals within each boring. Soil samples were analyzed for TPH-Dx, VOCs, and RCRA 8 Metals at ESN Northwest. Groundwater was not observed.

From January 2017 through March 2017, Point Source performed a subsurface investigation at the south adjoining 7-Eleven (1024 SE Grand Ave) and Japanese Auto Repair (521 SE Taylor St) properties.

- Borings SB15 and SB17 were advanced in the 7-Eleven parking lot. Borings were advanced to a depth of 12.0 feet bgs. Soil was screened continuously, and no olfactory or visual indication of petroleum hydrocarbon contamination was noted in samples collected from these borings. Field screening with a photoionization detector (PID) did not indicate VOC readings above background levels for the area. Samples were analyzed for TPH-Dx, TPH-Gx, and VOCs at Wy'East Environmental Sciences in Portland, Oregon.

- SB16 was advanced in the northeast corner of the storeroom located in the east half of the 7-Eleven building. This boring was advanced to hard refusal on a tight confining layer located at 16.5 feet bgs. **Stained soil with a solvent odor was observed from 9.0 feet to 16.0 feet bgs. Field screening with a PID indicated VOC readings as high as 1,192 parts per million (ppm). Soil staining abruptly terminated at the confining layer encountered slightly above the refusal depth. Unstained soil from 16.0 to 16.5 feet bgs**

retained a slight odor of solvents. No groundwater was encountered in this boring. The sample was analyzed for TPH-Dx, TPH-Gx, and VOCs at Wy'East Environmental Sciences.

- SB18 was advanced in the storeroom approximately 15 feet south of SB16. This boring was advanced to refusal on a tight confining layer located at 17.0 feet bgs. **Soil with a light solvent odor was observed starting at 9.0 feet bgs. Soil staining was observed in a narrow band from 9.5 to 10.0 feet bgs. No staining was observed from 11.0 to 14.0 feet bgs, however soils within this interval retained a light solvent odor. Stained soils with a heavy odor of solvents were observed again starting at 13.0 feet bgs, and continued to the refusal depth of 17.0 feet bgs. Contamination at refusal appeared moderate when compared to earlier runs. Field screening with a PID indicated VOC readings as high as 1,508 ppm**. No groundwater was encountered in this boring. The sample was analyzed for TPH-Dx, TPH-Gx, and VOCs at Wy'East Environmental Sciences.

- Boring SB19 was completed to hard refusal at 17.5 feet bgs in the southeast corner of the 7-Eleven storeroom, approximately 12 feet south of SB18. Native soil consisting of clayey silt, sandy silt, silt, and fine sand was encountered in the boring. Coarse sand and gravel was noted at the refusal depth of 17.5 feet. Soil samples were collected at depths of 10.0 feet bgs and 17.5 feet bgs at this location. Groundwater was not encountered in this boring. **Indications of light to moderate contamination were noted in bands at several depths between 9.0 and 16.0 feet bgs in the continuous soil cores collected from this boring**. The samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB20 was completed to progress refusal at 18.0 feet bgs in the northwest corner of the 7- Eleven storeroom against the wall separating the store room from the sales floor. Native soil consisting of clayey silt and silt was encountered in the boring. Soil samples were collected at depths of 10.0 feet bgs and 18.0 feet bgs at this location. Groundwater was not encountered in this boring. **Indications of heavy contamination were noted between 9.0 and 16.0 feet bgs in the continuous soil cores collected from this boring**. **Field screening of soils between 16.0 and 18.0 feet bgs indicated a light odor of contamination and no staining.** The samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB21 was completed to 16.0 feet bgs outside the 7-Eleven building in the parking lot. Shallow soils consisted of urban fill, including asphalt, pulverized brick, and mortar. Native soils consisted of clayey silt. A soil sample was collected from a depth of 16.0 feet at this location. Groundwater was not encountered at this boring. **No indications of contamination were noted in the continuous soil cores collected from this boring.** The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB22 was completed to hard refusal at 13.8 feet bgs in the Japanese Auto Repair building (east adjacent to the 7-Eleven property). Native soil consisting of silt, sandy silt, and fine sand was encountered in the boring. A soil sample was collected at a depth of 13.8 feet bgs at this location. Groundwater not encountered in this boring. **Indications of heavy contamination were noted between 12.2 and 13.8 feet bgs in the continuous soil cores collected from this boring**. The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB23 was completed to hard refusal at 13.5 feet bgs in the Japanese Auto Repair building, approximately 14 feet northeast of SB22. Native soil consisting of silt, clayey silt, sandy silt, and fine sand was encountered in the boring. A soil sample was collected at a depth of 13.5 feet bgs at this location. Groundwater not encountered in this boring. **Indications of heavy contamination were noted between 12.0 and 13.5 feet bgs in the continuous soil cores collected from this boring**. The sample was analyzed for

TPH-Gx and VOCs at Apex Laboratories.

- Boring SB24 was completed to hard refusal at 13.7 feet bgs in the northwest corner of the Japanese Auto Repair building. Native soil consisting of silt, clayey silt, sandy silt, and fine sand was encountered in the boring. A soil sample was collected at a depth of 13.5 feet bgs at this location. Groundwater not encountered in this boring. **Indications of heavy contamination were noted between 4.5 and 13.7 feet bgs in the continuous soil cores collected from this boring**. The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB25 was completed to hard refusal at 13.7 feet bgs in the Japanese Auto Repair building, approximately 13 feet east of SB23. Native soil consisting of gravel, silt, silty sand, coarse and medium sand was encountered in the boring. A soil sample was collected at a depth of 14.0 feet bgs at this location. Groundwater not encountered in this boring. **No indications of contamination were noted in the continuous soil cores collected from this boring.** The sample was analyzed for TPH-Gx and VOCs at Apex Laboratories.

An additional investigation was performed in May 2018. Soil and groundwater borings were advanced by Cascade under supervision of Point Source personnel. All soil and groundwater samples were analyzed for TPH-Gx and VOCs at Apex Laboratories.

- Boring SB28 was advanced to progress refusal at 32.0 feet bgs in the southwest corner of the 7-Eleven property. **Impacted soils were observed in this boring at 30.0 feet bgs**. Wet soil was first encountered at 30.0 feet bgs. An attempt was made to collect a groundwater sample, however the temporary monitoring well was dry following over 30 minutes of equilibration time. A soil sample was collected (SB28-S1) at the apparent soil-water interface (30.0 feet bgs) in place of a groundwater sample.

In August 2019, monitoring wells MW1 through MW5 were installed by Cascade under supervision by Point Source Solutions. Soil was screened from the ground surface for the purpose of collecting additional samples for characterization, and for determining the proper screened interval. All samples were analyzed for Extractable and Volatile Petroleum Hydrocarbons (EPH/VPH) at Fremont Analytical in Seattle, Washington, and TPH-Dx, TPH-Gx, and VOCs at Apex Laboratories.

- MW3 was advanced to a depth of 40.0 feet bgs on the east edge of the 7 Eleven property parking lot. **Impacted soils were observed at the SWI** and a soil sample was collected. Groundwater was encountered at 36.0 feet bgs. The monitoring well was installed with a screened interval of 30.0 to 40.0 feet bgs.

- MW4 was advanced to a depth of 40.0 feet bgs on the West property line of the Site. **Impacted soils were observed from 9.5 feet bgs to the SWI.** Soil samples were collected at several intervals based on field indicators, and from the SWI. Groundwater was encountered at 34.0 feet bgs. The monitoring well was installed with a screened interval of 30.0 to 40.0 feet bgs.

- MW5 was advanced to a depth of 35.0 feet bgs in the vicinity of the former dry cleaner location. **Impacted soils were observed from 7.0 feet bgs to the SWI.** Soil samples were collected based on field indicators, and from the SWI. Groundwater was encountered at 34.0 feet bgs. The monitoring well was installed with a screened interval of 30.0 to 40.0 feet bgs.

The impacted soil plume is composed of a main body generally located from 7.0 to 18.0 feet bgs, a hot spot roughly situated on the suspected source from approximately 4.5 feet bgs to the SWI (30 feet bgs), and a smear zone lens at the SWI. The main body extends from the suspected source into SE Grand Avenue to the

West. Lateral dispersion and some down/cross gradient transport has occurred to the south underneath the grand 7-Eleven building, and it is assumed that symmetrical dispersion occurred to the north under the Arcoa building. The SWI smear zone covers an area bound predominantly by SWI soil samples collected during MW installation and appears to be consistent with the local direction of groundwater flow.

Based on current information, these soils are expected to be suitable for disposal as non-hazardous waste at a RCRA Subtitle D Landfill (such as the Waste Management Hillsboro Landfill). Soils that exhibit staining and odor that is indicative of petroleum contamination should be considered as exceeding ODEQ Clean Fill Screening Levels (CFSLs) unless soil testing indicates otherwise.

4.3.2 Groundwater

The highest concentrations of TPH-Gx in groundwater were historically detected near the suspected source of the release. In 2013, 2,200 ug/L was detected in sample SB2B-W1 (Chugwater), and 1,460 was detected in W26 (located approximately 15ft NE of SB2B) in 2018.

The concentrations of TPH-Gx at the Site have never exceeded the Site-Specific RBC for GW in an excavation for construction worker receptors (11,000 ug/L). Site-Specific calculations of TPH-Gx as Stoddard Solvent were conducted with DEQ supervision, and are included with the VCP report for the Site.

If groundwater is encountered during site redevelopment activities, further testing by a qualified environmental professional confirming that the water is suitable for discharge into a municipal and/or site-specific stormwater drainage feature will be required. A batch discharge permit for groundwater encountered may be obtained through the City of Portland, which will necessitate further characterization of media prior to approval.

5.0 ODEQ CLEAN FILL SCREENING LEVELS

There are currently no ODEQ regulations requiring pre-transport testing of soil that is reasonably expected to be clean. However, ODEQ has published an internal management directive (*Clean Fill Determinations*, dated July 23, 2014), which includes Clean Fill Screening Levels (CFSLs) to use as guidance when evaluating disposal options for soil with low levels of contamination. Soil that does not appear contaminated and contains contamination at levels less than the ODEQ CFSLs can generally be re-used on site or disposed of off-site without restrictions. Excavation spoils will not meet DEQ's definition of "clean fill" if field screening evidence of contamination is observed or other chemical constituents are found to be present though additional characterization during construction.

Visual and olfactory (staining and odor) observations, field screening instrument readings (photoionization detector), and sheen testing are all methods that can be used to assist in identification of petroleum impacted soils.

6.0 CONTAMINATED MEDIA MANAGEMENT PLAN

The goals of this CMMP are to (1) provide the excavation contractor with information on the preliminary spatial distribution of impacted soil at the Site, (2) establish a decision structure to assist the earthwork contractor in the detection and management of impacted soil during excavation activities, and (3) prevent the exacerbation of environmental conditions.

6.1 IDENTIFICATION AND MANAGEMENT OF CONTAMINATED SOIL

Soil impacted with TPH-Gx and VOCs exhibits distinct field screening characteristics, including staining, odor, and

sheen when grains of soil are placed in a small amount of water. Soil management will rely on analytical results provided in **Figures 4A and 4B.**

6.2 SOIL MANAGEMENT METHOD #1: OFF-SITE TRANSPORT AND DISPOSAL

Based on known subsurface conditions at the project site (Section 4.3), contractors should assume that soil from 4.5 feet bgs to the soil-water interface at 30 feet bgs in the vicinity of borings specified in Section 4.3 during construction will not qualify as clean fill, unless the results of soil testing indicate otherwise.

Soil generated during development of the Site is expected to be suitable for disposal as non-hazardous waste at a RCRA Subtitle D Landfill or an ODEQ-approved disposal facility.

Where soil needs to be disposed of at an off-site facility, the excavation contractor will need to obtain a permit from the disposal facility prior to hauling the impacted soil to their facility. The earthwork contractor will likely need to provide chemical analytical laboratory data to the selected disposal facility.

Copies of the permit should accompany each load transported to the selected disposal facility.

Disposal facilities often have the following requirements prior to accepting material at their facility:

- No material will be received without a completed contaminated soil profile and application form (to be completed by the earthwork contractor), an approval of credit application on file and pre-approval from the disposal facility.
- Trucks will be permitted to weigh in as negotiated with the facility.
- Material may be sampled upon delivery by the disposal facility. Comparisons may be made between the submitted profile and on-site analysis. Soil transported to the disposal facility that is not consistent with the soil profile may be rejected.
- Exported soil must not contain any free liquids or foreign material (i.e., rebar, fittings, cans, wood, etc.). Truck loads with excessive foreign material may be reloaded and returned to the contractor or screened, sorted, and disposed of by the disposal facility for an additional fee.

6.3 SOIL MANAGEMENT METHOD #2: ON-SITE RE-USE

Based on our knowledge of the environmental condition of the Site, soil generated during earthwork at the Site can be re-used on site without additional testing requirements, assuming (1) it is geotechnically suitable, (2) does not exceed its ODEQ CFSL and/or Soil Ingestion, Inhalation, and Dermal Contact RBC for Urban Residential Receptors and (3) is ultimately capped with either a structure, pavement, or an approved geotextile.

6.3.1 Stockpile Management

If potentially contaminated soil is encountered within the project site that cannot be immediately transported off site for disposal, it must be temporarily stockpiled in areas designated by a qualified firm. Soil that is placed in temporary stockpiles within the project site must be well maintained at all times. All stockpiled soil must be placed on impermeable plastic sheeting (minimum 6-mil thick) with a berm around the perimeter of the stockpile. The plastic sheeting and berm prevent the runoff of stockpiled soil contaminants to surrounding areas. The berm may be constructed with hay bales or other equivalent methods approved by a qualified firm. The bottom plastic sheeting should be lapped over the berm materials, and the soil stockpile within the berm should also be covered with plastic sheeting to prevent erosion or leaching of contaminants from the soil

stockpile impacting the underlying soil. The upper plastic sheeting covering the soil stockpile should be secured using sand bags or an equivalent. The upper plastic sheeting prevents the stockpiled soil from being exposed to precipitation and wind.

The contractor is responsible for restoration of all stockpiled areas to a pre-stockpile condition, which means all soil and debris should be removed from the area. Stockpile plastic debris is not to remain on the project site or any adjacent sites following stockpile soil removal. If stockpiled soil is removed for off-site disposal, completion of removal must be satisfactory to the developer/owner and Point Source.

6.3.2 Composite Soil Sampling

Potentially contaminated stockpiled soil will be sampled using composite soil sampling methods by a qualified environmental professional and analyzed for disposal profiling.

STOCKPILE SOIL SAMPLING FREQUENCY	
Stockpile Volume Cubic Yards	**Number of Composite Soil Samples to Collect**
0 - 10	1
11 - 50	2
51 - 100	3
101 - 500	4
Each composite soil sample will be comprised of three soil sub-samples collected from a particular area of the soil stockpile. Soil stockpiles greater than 1,000 cubic yards will be sampled at a rate of five composite soil samples for the first 500 cubic yards, plus one composite soil sample for each additional 500 cubic yards.	

Stockpile soil samples will be collected by hand or the use of hand tools. Decontaminated hand tools should be used to remove the surface layer of soil and then the soil sample will be retrieved with a decontaminated stainless steel scoop or disposable gloves. Chrome-plated tools will not be used.

Soil samples will be collected using the procedure outlined below. Disposable gloves will be worn and changed between samples.

- Remove the top layer of soil to the desired sampling depth using a decontaminated hand tool.
- Conduct an initial visual screen (based on discoloration and sheen) to help identify the most appropriate sampling location.
- Mix the discrete soil samples into one composite soil sample in a decontaminated stainless steel bowl or disposable plastic bag until thoroughly homogenized.
- Transfer the composite soil sample to a labeled, laboratory-prepared sample jar using a decontaminated stainless steel or plastic laboratory spoon. Fill the jar(s) completely to minimize headspace.
- Clean the jar rim(s) before tightening the lids, and quickly and adequately seal the sample containers.
- Collect a sufficient volume of soil sample for the particular analysis. Place the labeled soil sample jar(s) in an iced cooler for temporary storage. Transport the soil samples to the chemical analytical laboratory.
- Use a field notebook to record a description of the soil that was sampled, the location of soil sample, the

sample I.D., and the time of soil sample collection. Record the sample on the soil sampling field forms and chain-of-custody form. The stockpile soil sample I.D. will include a prefix identifying the stockpile (SP) number followed by a sequential numeric designation. For example, the third composite soil sample collected from stockpile SP-3 will be identified as "SP3-3".

- Decontaminate the equipment between the collection of soil samples. Decontamination will include: (1) rinse with tap water and scrub with a scrub brush until free of large particles, (2) wash with phosphate-free detergent solution, (3) rinse with tap water and (4) rinse with distilled water.

Soil stockpile composite samples will be submitted to an analytical laboratory for analysis of the following (as required by the receiving disposal facility):

- Petroleum Hydrocarbons by NWTPH-GX and NWTPH-DX
- Volatile Organic Compounds by EPA Method 8260

The chemical analytical results shall be used to evaluate the appropriate off-site disposal location. All soil designated for off-site disposal must be characterized and permitted in accordance with the receiving facility's requirements prior to transport and disposal.

6.4 EROSION AND DUST CONTROL

If concrete slabs and asphalt paving have been removed from the Site, the exposed soil will become susceptible to erosion by wind and water; therefore, erosion control measures should be planned carefully and be in place before construction begins that removes concrete and/or asphalt. Silt fences, hay bales, and/or granular haul roads will be used as required to reduce sediment transport during construction to acceptable levels.

Measures to reduce erosion should be implemented in accordance with OAR 340-41-006, OAR 340-41-455, and the City of Portland and Multnomah County regulations regarding erosion control. In general, erosion control measures must limit sediment transport to less than 1 ton per acre per year, as calculated by the Universal Soil Loss equation.

6.5 CULTURAL RESOURCES

The areas of planned excavations are not expected to contain cultural or archaeological artifacts. However, if cultural or archaeological resources are inadvertently discovered during excavation, work in the area must stop and the Legislative Commission on Indian Services shall be notified by calling 503.986.1067. The Oregon State Historic Preservation Office should be contacted regarding discovery or potential damage to archaeological sites. ODEQ should also be contacted so that modifications to the work scope may be discussed.

6.6 CONTRACTOR REPORTING REQUIREMENTS

The contractor is responsible for keeping a detailed daily record of all soil excavation, stockpiling, export, and disposal of potentially contaminated soil. This includes the purpose, origin, destination, and volume of soil that is (1) loaded and hauled to the approved off-site disposal sites, (2) re-used as fill on the project site, or (3) transported to temporary stockpile locations (within the project site). The contractor is responsible for preparing a daily field report for distribution to the owner that identifies the number of truck-loads of soil transported off site and daily tonnage for each disposal location. All soil excavation, handling, and disposal activities will be documented in these daily field reports by the contractor, and soil sampling and analysis by a qualified firm will be summarized in a final report. The daily reports should also contain documentation of any dewatering systems as described in Section 4.3.2.

6.7 GROUNDWATER MANAGEMENT

Groundwater has been noted to be encountered at depths between 26 and 34 feet bgs in the vicinity of the Site. It is unknown whether groundwater will be encountered during future excavation activities. If only a limited volume of groundwater or surface water requires removal during excavation, vacuum trucks can be mobilized to remove and dispose of the accumulated water.

If the quantity of water encountered merits dewatering, the contractor should make arrangements to have the water generated during construction activities pumped to above-ground storage tanks for management. Containerized water will require handling and chemical analytical testing in accordance with applicable regulations. A depiction of the estimated plume of impacted groundwater is included as **Figure 4C**.

If impacted groundwater is identified during construction, contingencies to address unacceptable contaminant levels in the effluent stream will be employed. A typical treatment system could include a series of 20,000-gallon storage tanks equipped with chitosan socks, carbon adsorption filters, sand filters, and/or bag filters to remove sediments and contaminants (if necessary). The excavation contractor is responsible for obtaining the necessary discharge permits; the treatment system setup, maintenance, and modification of the system; effluent testing; discharge metering; and agency reporting.

7.0 IMPORTED BACKFILL CONSIDERATIONS

All fill material imported to the project site shall consist of either a manufactured rock product (e.g., ¾-inch-minus crushed rock from a permitted rock quarry) or must be free of contaminants at concentrations exceeding DEQ's CFSLs. It is the contractor's responsibility to ensure all imported fill material meet these criteria and provide the owner with the imported material origin information and accompanying documentation demonstrating the material meets DEQ CFSLs, if not using a manufactured rock product. If the source facility or contractor cannot provide documentation demonstrating that the material meets DEQ CFSLs, the material should not be used as backfill at the project site. In addition, if evidence of contamination is observed in imported fill material, the contractor should reject the imported backfill and identify an alternate source. Also, material imported as structural backfill should be evaluated and approved by the geotechnical engineer before placement on the site.

8.0 UNFORESEEN CONDITIONS

In the event that undocumented contamination or other potentially hazardous conditions are encountered that are not addressed in this CMMP, the earthwork contractor shall cease work and notify the owner and the qualified environmental contractor. The earthwork contractor will then barricade or otherwise isolate the area and avoid filling the area until authorized to do so by the qualified environmental contractor. The qualified firm will determine the appropriate course of action to assess potential unknown conditions encountered during excavation. The earthwork contractor shall not replace any known or suspected contaminated soil in any excavation area without prior approval by the qualified environmental contractor.

9.0 ASSUMPTIONS AND LIMITATIONS

This CMMP is designed to provide earthwork contractors with guidance for the proper handling and management of impacted soil. This document is intended to be used as a general overview document for the use of the excavation contractor and project development team during the earthwork portions of Site projects.

The prime contractor must prepare and implement during the project a site-specific Health and Safety Plan (HSP). The HSP fulfills "worker right to know" requirements (29 CFR 1926.59). A copy of the HSP must be submitted to the developer/owner prior to the start of work on the Site. During work on the project, the HCP

must be posted at the project site. The prime contractor is responsible for notifying subcontractors of pertinent environmental conditions. Subcontractors may either adopt the prime contractor's HCP or must prepare their own HCP. This document should be used in conjunction with, not in place of, the HCP and the project specifications. Each contractor and subcontractor is responsible for the safety of its employees, including compliance with applicable OSHA regulations, and compliance with all specifications in the technical specifications manual for the project.

In addition to implementation of an HSP, the prime earthwork contractor is responsible for preparation and implementation of a site-specific HSP to ensure adequate protection for their workers while on site.

If you have any questions regarding this CMMP, please do not hesitate to contact the undersigned.

Prepared by:

Kyle Fisher
Project Manager

Point Source Solutions, LLC
5317 NE St Johns Rd, Suite D
Vancouver, Washington 98661

Phone: 503.236.5885

Reviewed By:

Gil Cobb, RG
Registered Geologist (Oregon #G1440)

FIGURES

Figure 1	Site Location Map
Figure 2	Topographic Map
Figure 3	Site Plan
Figure 4A	Soil TPH Sample Location Diagram
Figure 4B	Soil VOCs Sample Location Diagram
Figure 4C	Groundwater TPH Sample Location Diagram

FIGURES

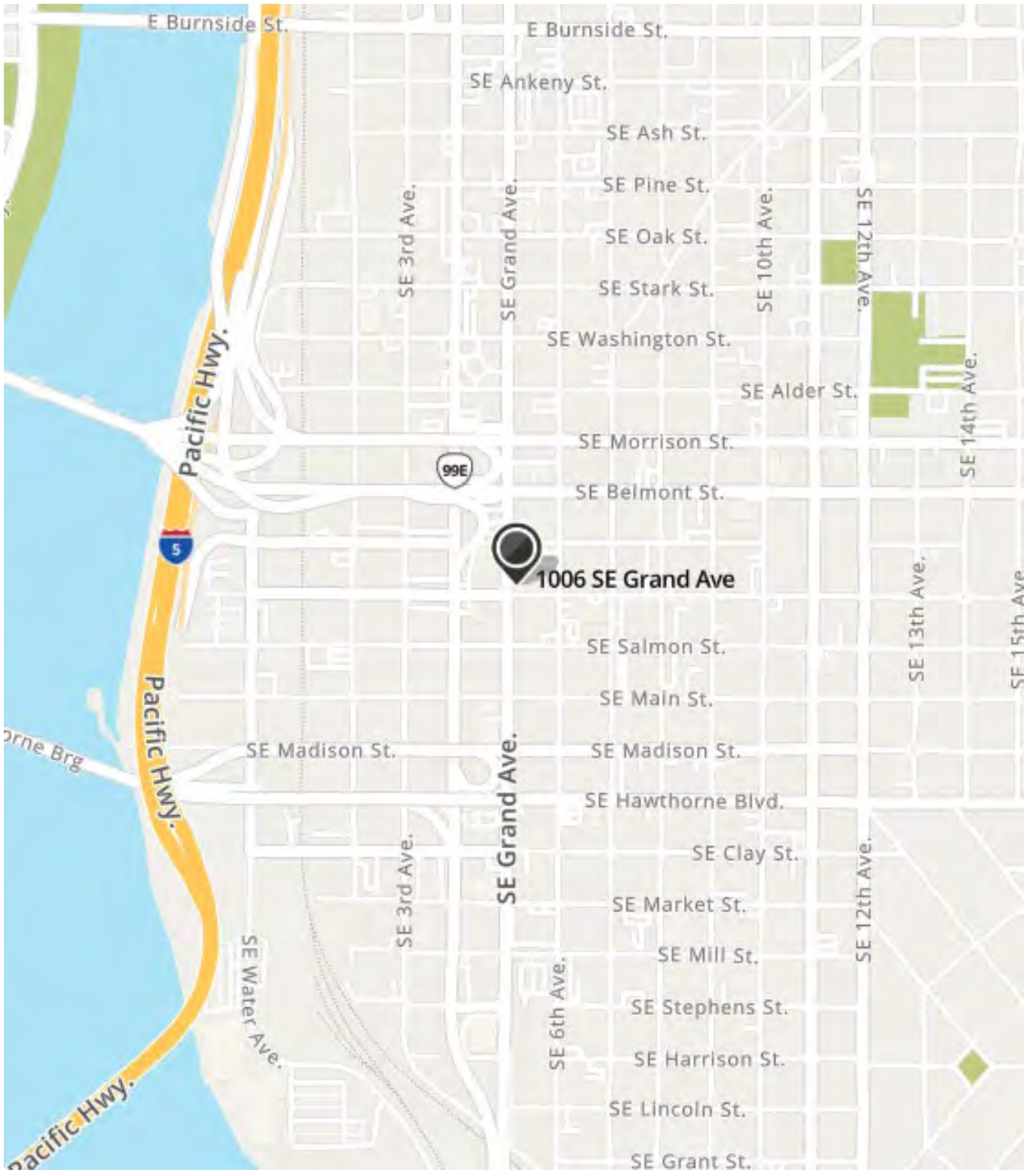

FIGURE 1 - SITE LOCATION MAP	Map from MapQuest N↑
point source solutions, llc ENVIRONMENTAL CONSULTING AND CONTRACTING	**Site Name:** Former Allyn's Cleaning & Dyeing 1006 SE Grand Avenue et al. Portland, OR 97214 **Project Number:** ECSI #6199

FIGURE 2 - TOPOGRAPHIC MAP

Source: USGS 7.5 Minute Topographic Map
Portland, OR Quadrangle 1984

N↑

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Former Allyn's Cleaning and Dyeing
1006 SE Grand Avenue et al.
Portland, OR 97214

Project Number: ECSI #6199

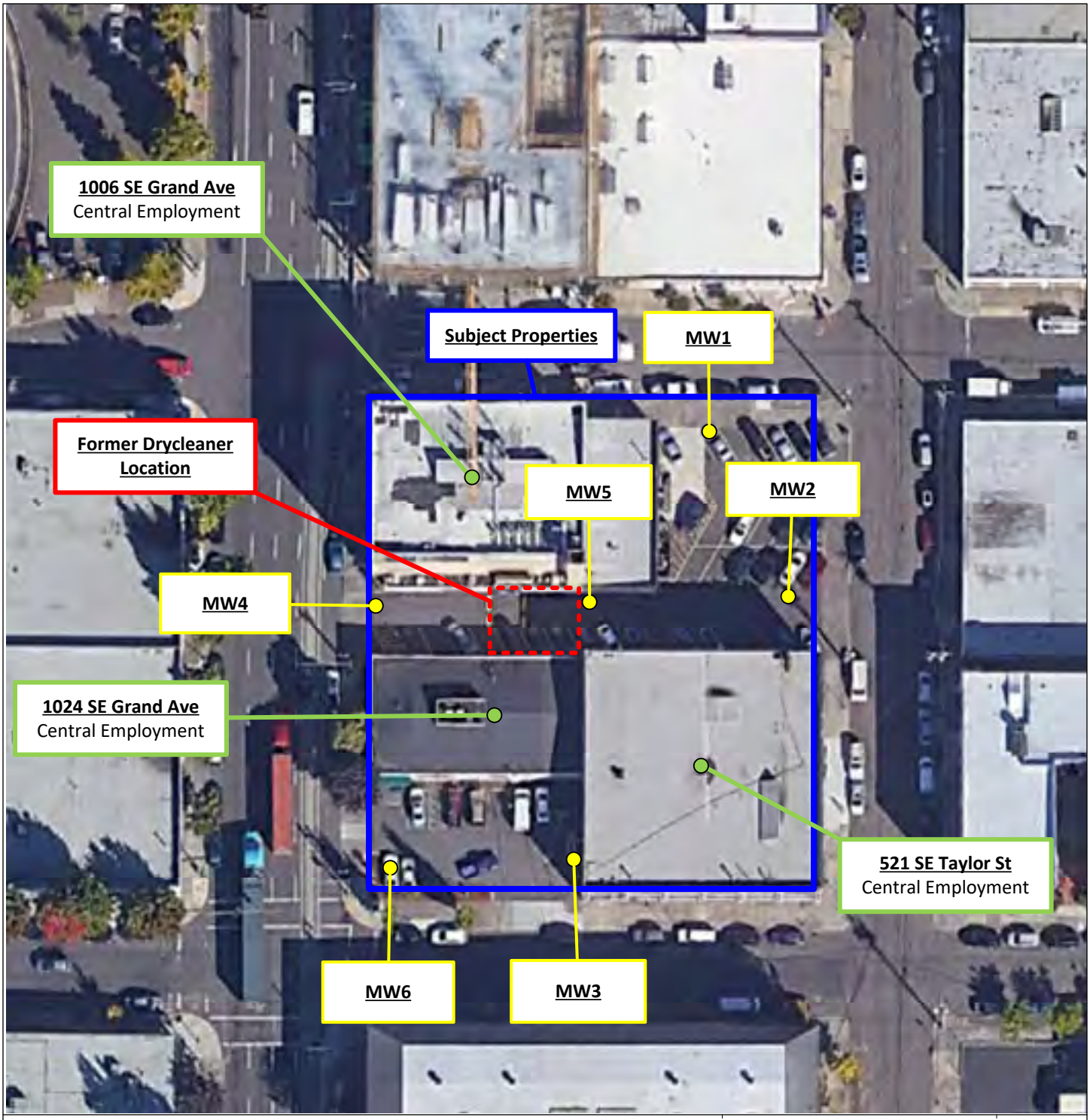

FIGURE 3 - SITE PLAN

Image From Google Earth (2018)

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Notes:

- *Location of former drycleaner based upon historical documentation.*

Adjacent Property

Monitoring Well Location

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Former Allyn's Cleaning & Dyeing
1006 SE Grand Avenue et al.
Portland, OR 97214

Project Number: ECSI #6199

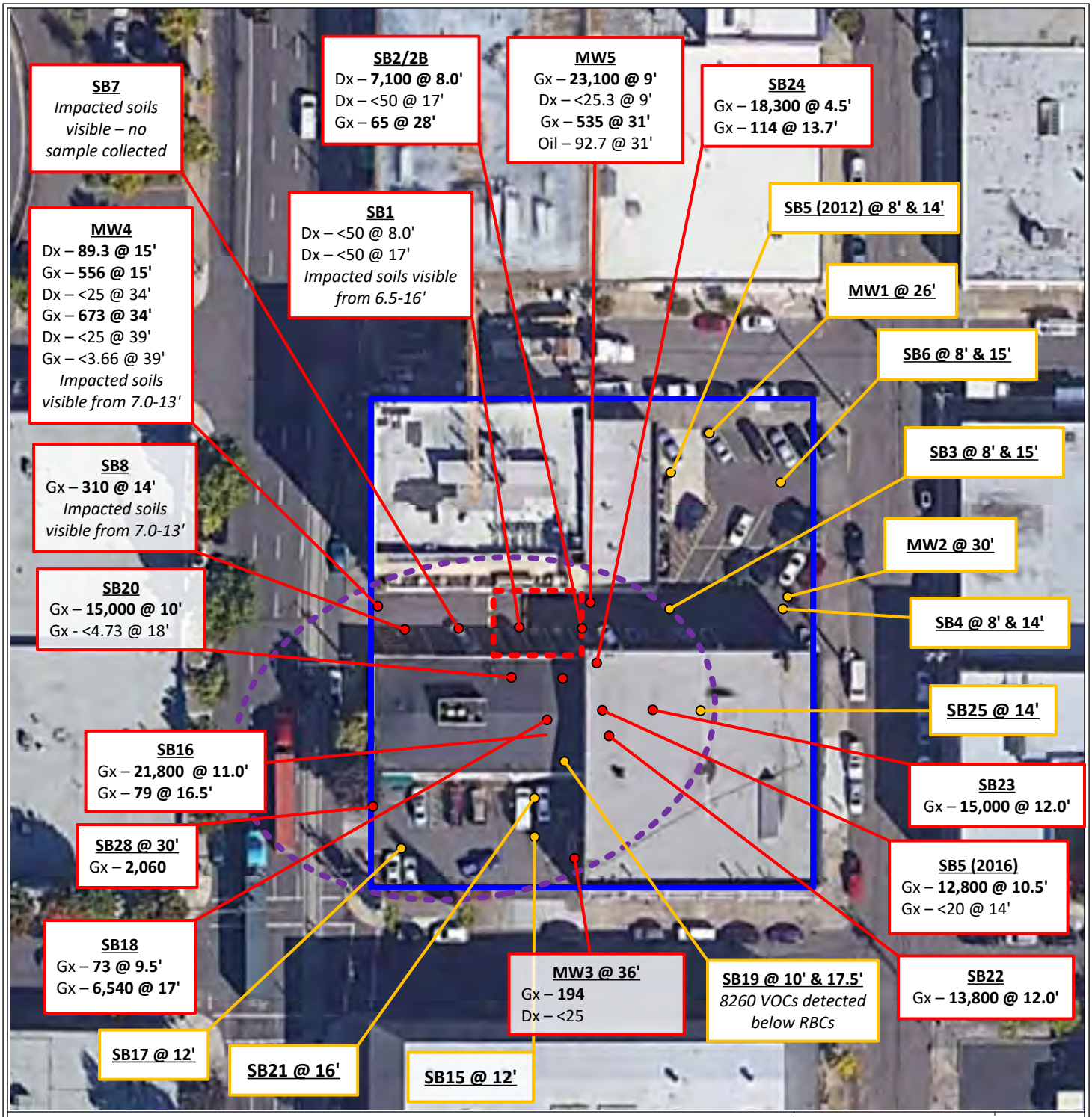

FIGURE 4A – SOIL TPH SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

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Notes:

- *Soil Sample results in mg/Kg*
- *Location of former drycleaner based upon historical documentation.*
- *SB15 – SB28 advanced by PSS (2017-2018)*
- *SB1 – SB8 advanced by Chugwater (2013)*
- *MW1 – MW5 advanced by PSS (2019)*

Soil Sample Location

Soil Sample Location (Stoddard solvent observed/detected)

Site Boundary

Former Drycleaner Location

Estimated Impacted Soil Extent

Scale in Feet (Approximate)

100

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Former Allyn's Cleaning & Dyeing
1006 SE Grand Avenue et al.
Portland, Oregon 97214

Project Number: ECSI #6199

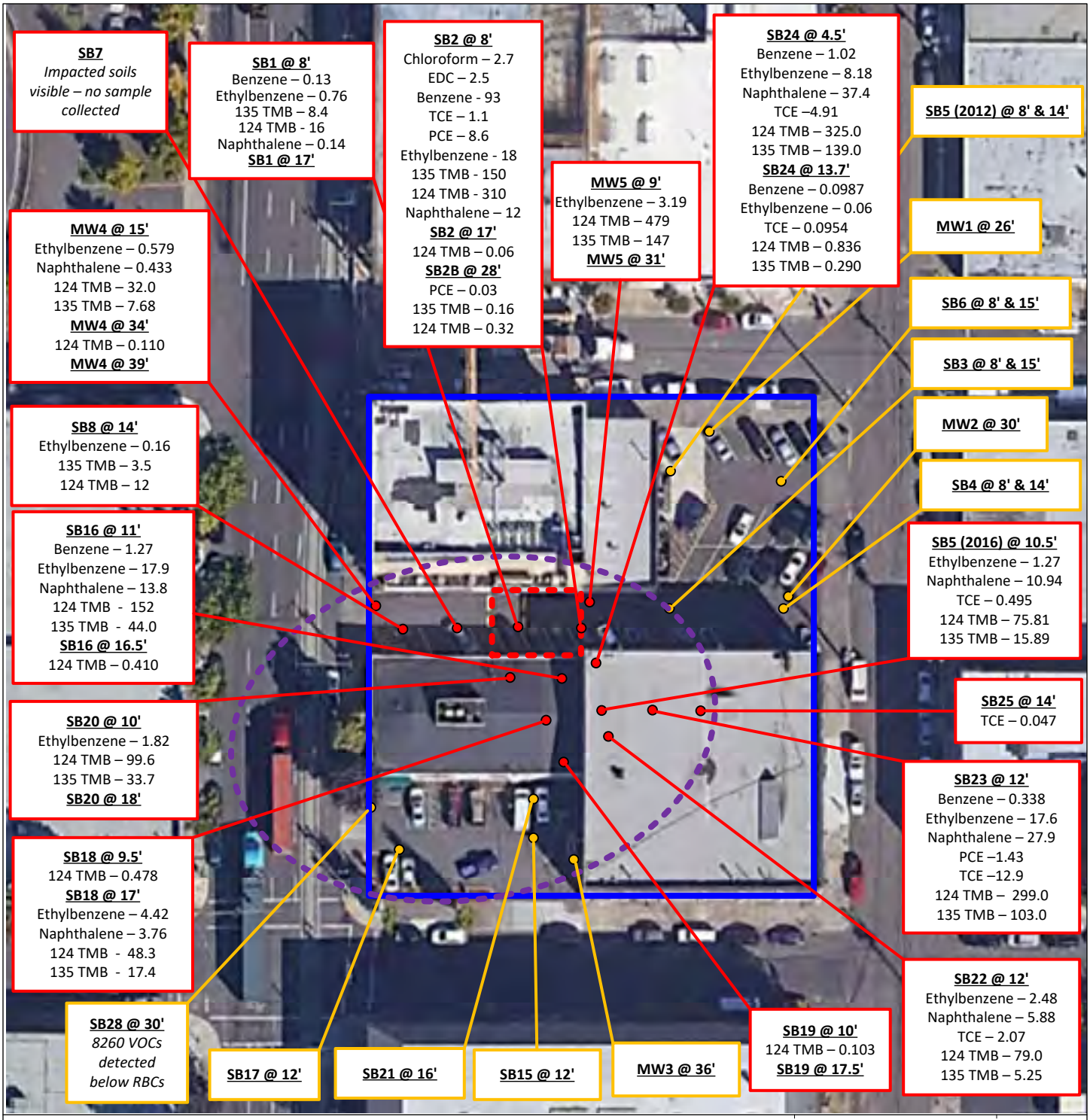

FIGURE 4B - SOIL VOCs SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

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Notes:

- *Soil Sample results in mg/Kg*
- *Location of former drycleaner based upon historical documentation.*
- *SB1 – SB8 advanced by Chugwater (2012-2013)*
- *SB5, SB15 – SB28 advanced by PSS (2016-2018)*
- *MW1 – MW5 advanced by PSS (2019)*

Soil Sample Location

Soil Sample Location (VOCs observed/detected)

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

Estimated Impacted Soil Extent

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1006 SE Grand Avenue et al.
Portland, Oregon 97214

Project Number: ECSI #6199

FIGURE 4C - WATER TPH SAMPLE LOCATION DIAGRAM

Image From Google Earth (2018)

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Notes:

- *Water Sample results in ug/L*
- *Results depicted for TPH-Dx/Gx (stoddard solvent) only*
- *Estimate GW TPH plume based upon Oct 2020 GWM event*
- *SB2B-W1 collected by Chugwater (2013)*
- *W26 – W29 collected by PSS (2018)*
- *MW1 – MW6 installed by PSS (2019-2020)*

Water Sample Location

Monitoring Well Location

Site Boundary

Former Drycleaner Location

Scale in Feet (Approximate)

100

Estimated TPH Impacted GW Extent

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