Montrose Environmental
1631 E. Saint Andrew Place
Santa Ana, CA 92705
t 714.919.6500

October 9, 2024

Deb Goldberg
Oregon Department of Environmental Quality
Northwest Region
700 NE Multnomah St., Suite 600
Portland, OR 97232

LUST ID# 26-24-0148
Facility ID# 718

Interim Status Report
Site No. 5460
425 NE Broadway Street
Portland, Oregon

Dear Ms. Goldberg:

Montrose Environmental (Montrose), on behalf of United Pacific (UP), has prepared this *Site Status Update* for the above referenced location (Site). A site location map is presented as **Figure 1**. This Report was prepared to meet the 45-day report requirement for an interim status update as required by the Oregon Department of Environmental Health (DEQ) regarding a reported petroleum release associated with an underground storage tank located in the street adjacent to the Site. The DEQ Leaking Underground Storage Tank (LUST) Identification Number is #26-24-0148). Recent DEQ correspondence is included as **Appendix A**.

This report includes a description of the Site, a brief summary of the known environmental history of the Site, and a description of recent activities completed for the LUST case.

SITE DESCRIPTION

The Site is an active gas station and convenience store, with a physical address of 425 NW Broadway Street and a parcel address of 415 NE Broadway Street, Portland, Oregon. The subject property is identified by Multnomah County Assessor's Parcel Number (APN) R182492 and is approximately 0.83 acres in size.

Three active USTs are located on the Site; two contain unleaded gasoline and one contains diesel fuel. The capacities of the USTs are 12,000 gallons each. The current site configuration is shown in **Figure 2**.

The Site is bound NE Schuyler Street to the north by, NE Broadway Street to the south, NE Grand Avenue, and by NE Martin Luther King Jr. Boulevard to the west. The surrounding properties consist of commercial businesses.

Previous Site Assessment History

A summary of the environmental site history can be found in the *No Further Action Determination* (NFA) letters, dated November 8, 2006, and September 16, 2009, from the DEQ. Copies of the NFA letters are included as **Appendix B**. A brief summary of the environmental history follows below.

A petroleum release at the Site was reported to DEQ in 1989. Various site assessment activities and UST removal/replacement were conducted, remediation wells were installed, and a soil vapor extraction system was operated at the Site. Groundwater was not encountered at the Site to a depth of 100 feet below ground surface (bgs). An NFA determination was issued on November 8, 2006 (File #26-89-0073). A second fuel release was reported in 2007 following a Due Diligence Site Assessment where contamination was detected in soil at the Site. Because contaminant concentrations in soil were consistent with what was previously left in place in 2006, the DEQ issued an NFA determination for the Site (File #26-07-1727).

In March 2024, a petroleum leak associated with a UST located in the public right-of-way of Grand Street was reported to the DEQ (File #26-24-0148). Based on information provided to Montrose by UP, the City of Portland (City) discovered a concrete vault (suspected UST) within the public right of way of NW Grand Avenue during roadwork associated with sewer rehabilitation. The City suspected the UST may be related to operations at the adjacent UP Site 5460 gas station property. Based on correspondence provided by UP, the tank was pumped out and a soil sample was collected from shallow soil (~6 feet bgs) near the UST. Analytical results indicate that total petroleum hydrocarbons quantified as gasoline (TPH-Gx), volatile organic compounds (VOCs) and metals were detected in the soil sample (sample Tank N. 6ft).

UP requested Montrose review historical records for the Site to identify potential information related to the UST encountered by the City. Based on a review of available historical records and DEQ files for the Site, no additional information regarding the unknown tank was found.

RECENT ACTIVITIES

On September 19, 2024, Montrose had a conference call with Mr. Josh Nault, City Bureau of Environmental Services Construction Manager, to discuss the UST removal process and costs, and to obtain additional information regarding the UST and the activities completed by the City. The City provided additional UST information and contact information for their on-call contractor, Alpha Environmental Services, Inc. (Alpha), by email on September 23, 2024. A copy of the documents received from the City, which included a map showing the approximate location of the UST, are provided as **Appendix C**.

On September 26, 2024, Montrose contacted the Alpha to obtain a cost estimate for UST removal services and discuss their observations of the initial tank discovery.

On October 3, 2024, the signed *LUST Cost Recovery Agreement* was submitted to the DEQ. In response, the DEQ indicated that the Site has been added to the LUST waitlist and is pending assignment of a DEQ case manager.

On October 7, 2024, Alpha provided a cost estimate for tank removal services. It is understood that a street moratorium is scheduled to begin in mid-November and continue through the new year, and the City would like the removal work be completed as soon as possible. UP is currently reviewing the costs and will work with the involved parties to complete the UST removal in a timely manner.

Montrose appreciates the opportunity to be of service to UP and the Oregon DEQ. If there are questions regarding this report or if additional site information is required, please do not hesitate to contact Montrose at (714) 919-6500.

Sincerely,
MONTROSE ENVIRONMENTAL

Laura Skow
Project Manager

Dane Nygaard
Senior Manager

cc: Mr. Tom Robins, United Pacific

FIGURES

Figure 1: Site Location Map
Figure 2: Site Plan

ATTACHMENTS

Attachment A: Recent DEQ Correspondence
Attachment B: DEQ NFA Letters
Attachment C: UST Information from City

REFERENCES

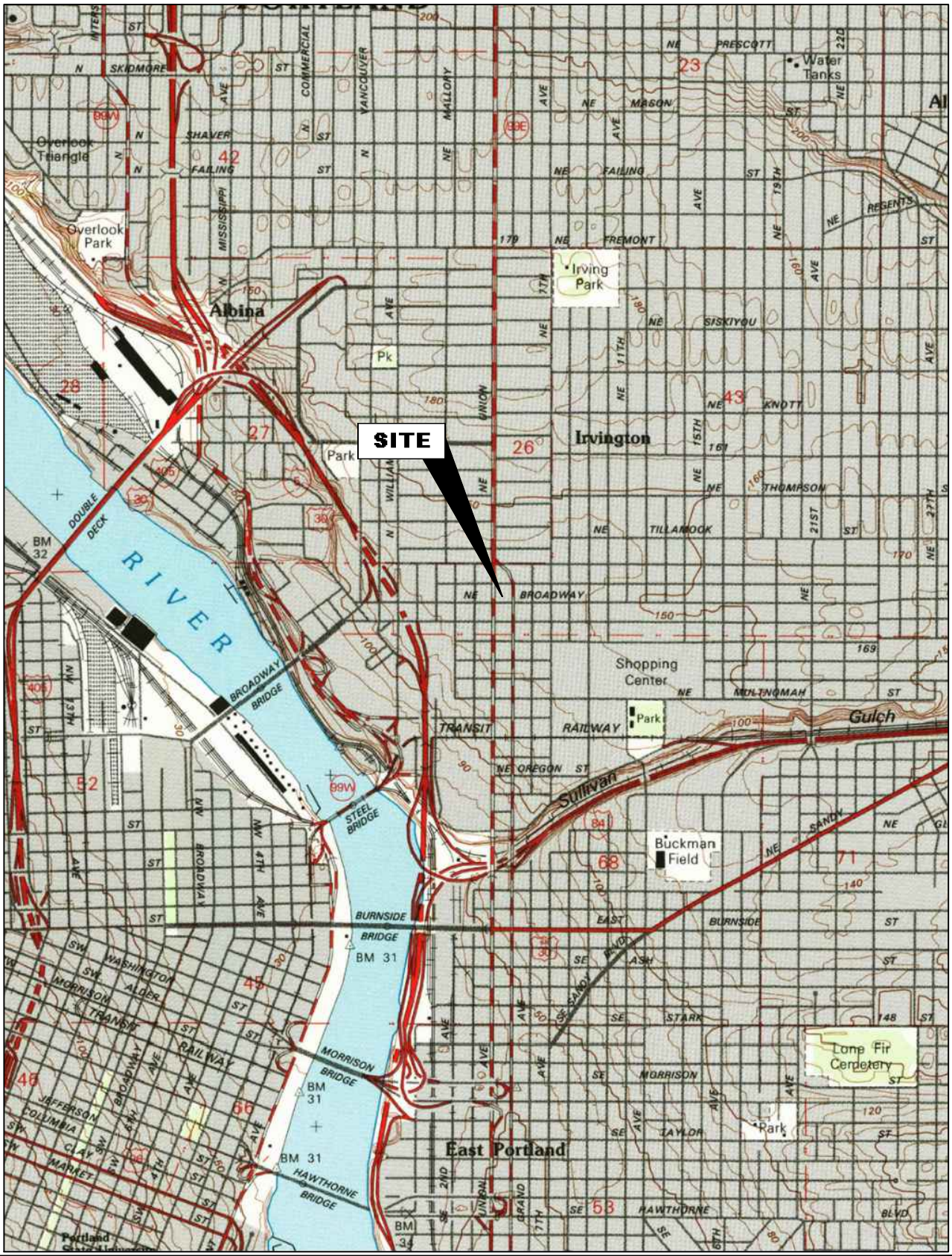
ATC Associates Inc. (ATC), 2008. *Due Diligence Site Assessment Report, ConocoPhillips Site No. 2705460, 425 Northeast Broadway Street. Portland, Oregon, ATC Project No. 34.75118.3254.* February 1.

State of Oregon, Department of Environmental Quality (DEQ), 2006. *No Further Action Determination, BP Station 11033; UST Cleanup File No. 26-89-0073; UST Facility ID No. 718.* November 8.

State of Oregon, Department of Environmental Quality (DEQ), 2009. *No Further Action Determination, ConocoPhillips #2705460; UST Cleanup File No. 26-07-1727; UST Facility ID No. 718.* September 16.

URS Corporation (URS), 2004. *Letter Report Assessment of Vapor Extraction System and Vertical Delineation of Petroleum Hydrocarbons in Soil, Former BP Facility 11033, 425 Northeast Broadway Street. Portland, OR, DEQ File No 26-89-0073.* August 26.

FIGURES



Map Information:

GAIA GPS 2024
45°32'8"N 122°39'40"W

MONTROSE ENVIRONMENTAL
1631 E. Saint Andrew Place, Santa Ana, CA 92614 | t 714.919.6500

N

0 2000

APPROX. SCALE: 1" = 2000'

FIGURE 1

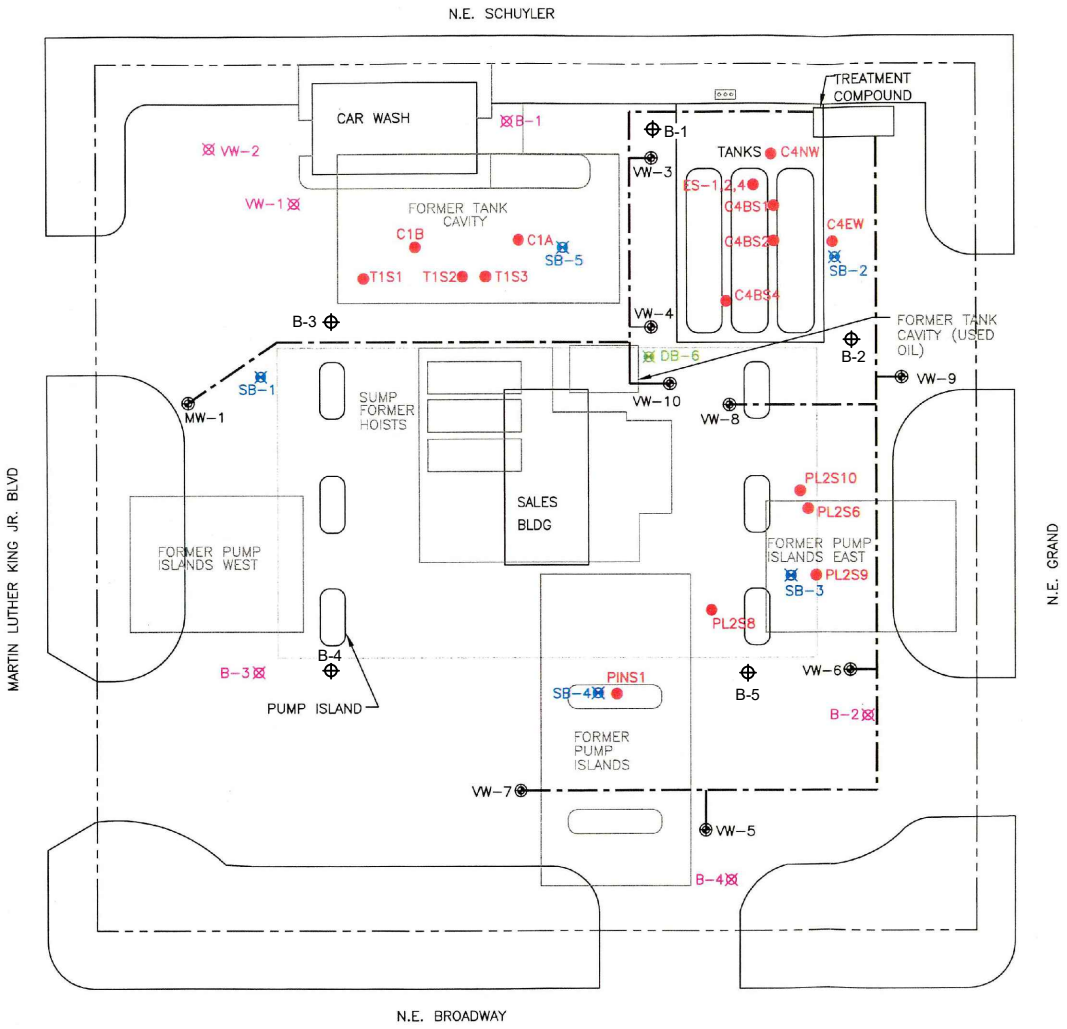
SITE LOCATION MAP

Site No. 5460
425 NE Broadway Street
Portland, Oregon

DATE
10/9/2024

PROJECT NO.
045448

FILE NO.
11033F1-SLM



LEGEND

B-1	BORING LOCATION
	VAPOR WELL LOCATION
SB-4	PROPOSED SHALLOW BORING TO 20'
DP-6	PROPOSED DEEP BORING TO 100'
	SOIL SAMPLE LOCATIONS FROM EXCAVATIONS (ONLY SAMPLES WITH DETECTIONS ARE INDICATED)
B-1	BORING LOCATION (ATC, 2007)
	VAPOR EXTRACTION TRENCH

0 40 80

APPROXIMATE SCALE (FEET)
Source: URS 2004

MONTROSE ENVIRONMENTAL
1631 E. Saint Andrew Place, Santa Ana, CA 92614 | t 714.919.6500

FIGURE 2
SITE PLAN

Site No. 5460
425 NE Broadway Street
Portland, Oregon

DATE DRAWN
10/09/2024

PROJECT NO.
045448

FILE NO.
11033F2-SP

R:\03_Site Assessment & Remediation\United Pacific\415- 425 NE Broadway Portland, OR\Reports\45-day Report - Status Update\Figures\11033.dwg

ATTACHMENT A

Recent DEQ Correspondence

Oregon

Tina Kotek, Governor

Department of Environmental Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5263
FAX (503) 229-6945
TTY 711

July 29, 2024

Miller Nash LLP
Attn: Julianne M. Avery

Re: **DEQ Response to Environmental Cleanup of Underground Storage Tank System**
425 NE Broadway Street, Portland, OR
Skyline Principal and Sansome Six United (LUST# 26-24-0148)

Dear Julianne,

The Oregon Department of Environmental Quality (DEQ) was notified on March 21, 2024, of a petroleum leak associated with an underground storage tank located in the street adjacent to 415 Northeast Broadway Street in Portland, Oregon (Leaking Underground Storage Tank Identification Number 26-24-0148). Based on information that you and the City of Portland have provided to DEQ regarding ownership and facility operations, the underground storage tank and petroleum release appear to be associated with the subject property (list of documents and emails enclosed).

We understand that APRO, LLC (APRO) is the current owner and/or operator of the property. Oregon law considers owners/operators a responsible party for environmental cleanup, and APRO is required to clean up this contamination to a level that protects human health and the environment. When the cleanup of this petroleum release meets Oregon standards, DEQ will be able to close the file by issuing a "No Further Action" letter to them.

APRO will need DEQ oversight for their work to help them make sure that their environmental cleanup meets minimum regulatory and technical standards. Oregon law requires DEQ to invoice responsible parties for staff time spent on oversight of cleanup projects. DEQ tracks and bills for this time monthly, beginning with the reporting of the release and continuing through project oversight and final site closure. Staff time may include reviewing reports, preparing correspondence, answering technical questions, meeting with APRO or their contractor, site inspections, and enforcement actions.

Please sign-in or create an account through Your DEQ Online and submit a Leaking Underground Storage Tank Cost Recovery Agreement. Even if APRO does not sign the agreement, they are still responsible for investigation and/or cleanup of the contamination, as well as for DEQ oversight costs. Note that DEQ staff workloads are heavy and there may be a delay in assigning your cleanup project to a project manager.

If APRO chooses to hire and rely upon a qualified contractor or consultant, DEQ recommends that they still become familiar with Oregon's environmental cleanup requirements. A copy of the

Underground Storage Tank Cleanup Manual and other guidance documents can be obtained by calling our toll-free number at 1-800-742-7878 or by visiting the following web sites:

https://www.oregon.gov/deq/FilterDocs/USTCleanupManual.pdf
https://www.oregon.gov/deq/tanks/Pages/Cleanup-Guidance.aspx

As outlined in the Underground Storage Tank Cleanup Manual, APRO should complete and return the enclosed 20-day Report within twenty (20) days from the date of this letter, as required under Oregon Administrative Rule (OAR) 340-122-0225(3). You also have additional reporting obligations, as listed in the manual, including due dates for various documents that you will need to provide to DEQ.

We realize that environmental cleanups are expensive and that our requirements can be difficult to understand, so please do not hesitate to contact the DEQ with any questions you may have. Please reference the DEQ file number and site name listed above in all inquiries and reports. If you have any questions, please contact Rebecca Digiustino at (503) 926-2257 or via email at rebecca.digiustino@deq.oregon.gov.

Sincerely,

Peter F Donahower

Peter Donahower
Petroleum Cleanup Section Manager
Northwest Region

Enclosures

List of documents and emails:

Avery, Julianne (Miller Nash, LLP). "Environmental Cleanup of Underground Storage Tank System: 425 NE Broadway Street, Portland, OR." Received by Rebecca Digiustino (DEQ), May 2, 2024.

Meyer, Taryn (City of Portland Bureau of Environmental Science, Coordinated Site Assessment Program). "NE Grand and Broadway Tank Lust 26-24-0148." Received by Jeff Schatz (DEQ), July 23, 2024.

Nault, Josh (City of Portland Bureau of Environmental Science, Construction Management). "Re: 425 NE Broadway Street, Portland, OR, 97232." Received by Sansome Pacific Properties, February 20, 2024.

Skow, Laura (Montrose Environmental). "Letter Summary of ODEQ File Review." Received by Tom Robins (United Pacific), July 3, 2024.

State of Oregon Department of Environmental Quality

Initial Twenty Day Report Form

Leaking Underground Storage Tank Program

This report is due twenty (20) days from the date of release. Keep a copy of this report with your facility records.

DEQ Project No. _____

DEQ Facility ID No. _____

Project Name: _____

Project Address: _____

Initial Cleanup Information

1. Type of contamination (check √ all that apply):
   ☐ Gasoline ☐ Diesel ☐ Waste Oil ☐ Heating Oil
   Other (specify) _____

2. Estimate quantity of release (based on information known to date, select only one):
   ◯ <100 gal. ◯ 100-499 gal. ◯ 500-999 gal. ◯ 1,000-5,000 gal. ◯ >5,000 gal.

Site Information (check √ yes or √ no)

3. ☐ **Y** ☐ **N** Did any water enter the excavation? If yes, please describe and identify the depth to groundwater in feet below ground surface: _____

4. ☐ **Y** ☐ **N** Was a sheen or odor observed on any water in the excavation?

Note: If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BTEX and by the appropriate TPH method.

At sites where diesel or other non-gasoline products have been released, the water may also have to be screened or tested for polynuclear aromatic hydrocarbons (PAHs). *Please refer to OAR 340-122-0218.*

5. ☐ **Y** ☐ **N** Was water pumped from the excavation?
   ☐ **Y** ☐ **N** If yes, did groundwater recharge within 24 hours after pumping?
   Please describe the pumping procedure and disposal option selected for the purged excavation water:

6. ☐ **Y** ☐ **N** Were any water samples collected from the excavation? If yes, please describe.
   _____

7. ☐ Y ☐ **N** Have any soil and/or water sample results been received at this time? **If so, please attach any lab reports.**

If groundwater has been encountered, please answer questions #8-13, below.

If no water has been encountered, please skip to question #14.

8. What are the known uses of groundwater within a 500-foot radius of the release site (check √ all that apply)?

☐ non-use ☐ industrial ☐ agricultural ☐ drinking supply

9. If groundwater in this area is being used as a drinking water supply, please check √ the type and size of population served by the supply:

☐ Community (community well used for drinking water year round, select only one)
size: ◯ <1,000 people ◯ 1,000 - 5,000 people ◯ >5,000 people

☐ Intermittent use (public water used for drinking water only on a part-time basis, select only one)
size: ◯ <50 people ◯ 50 - 300 people ◯ > 300 people

☐ Private wells (individual private well or wells used for drinking water, select only one)
size: ◯ <10 people ◯ 10 - 25 people ◯ >25 people

10. ☐ **Y** ☐ **N** Is there any evidence this water supply has been or is likely to be impacted from the petroleum product release? If yes, estimate how difficult it would be to replace the existing supply:

☐ bottled water is the only alternative

☐ on-site water treatment; bulk water delivery; new wells are available

☐ able to connect to existing water supply

☐ do not know what alternatives would be available

11. ☐ **Y** ☐ **N** Are/were vapors present in on-site or nearby buildings? If yes:

A. Are you monitoring and/or mitigating any potential fire and safety hazards posed by vapors and free product? Explain: _____

_____

B. Estimate the number of people potentially affected by vapors – ● select only one:

1-2 people 3-10 people >10 people

12. ☐ **Y** ☐ **N** Are vapors or is petroleum contamination present in the utility corridors? If yes, please explain:

13. ☐ **Y** ☐ **N** Are natural areas located within 1/4 mile of the site? If so, please describe types (parks, rivers, wetlands, sensitive habitats, *etc.*) and proximity:

14. ☐ **Y** ☐ **N** If groundwater was not encountered in the excavation, do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site? If yes, then refer to OAR 340-122-0305 through 0360.

Area Site Conditions

15. Mean annual rainfall: ◯ <20 inches ◯ 20-45 inches ◯ >45 inches

16. Soil type(s) of the naturally occurring soils, not the backfill around the tank, select only one:

◯ clays, compact tills, shales, and unfractured metamorphic and igneous rocks

◯ sandy loams, loamy sands, silty clays, clay loams, moderately permeable limestone, dolomite, sandstones, moderately fractured igneous and metamorphic rock

◯ fine and silty sands, sands and gravels, highly fractured igneous and metamorphic rock, permeable basalts and lavas, karst limestones and dolomites

Soil Management

17. If soil sample results have been received:

☐ **Y** ☐ **N** Will the level of contamination detected require removal of contaminated soil for treatment or disposal?

18. All contaminated soil temporarily stockpiled on-site prior to treatment or disposal must be contained within a bermed area, kept covered, and the entire area secured to prevent unauthorized access by the public. If you haven't done this, please explain why:

Note: It is a violation to stockpile petroleum contaminated soil (PCS) on-site for greater than 30 days without a DEQ Solid Waste Letter Authorization (SWLA) Permit.

19. If contaminated soil is currently stockpiled on-site, please indicate when disposal will occur or when treatment will begin:

20. Estimated volume of contaminated soil (specify tons or cubic yards):

21. Intended disposition of soils (select only one):

◯ On-site/off-site treatment, Solid Waste Letter Authorization Permit Application attached.

◯ Thermal treatment off-site at an authorized facility.
Facility name: _____

◯ Landfill disposal.
Landfill name: _____

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports should provide a more detailed and complete picture of the cleanup project.

Please be aware that a DEQ permit/authorization is required for the following activities:

1) Soil aeration, bioremediation (on-site or off-site), or on-site thermal treatment.

2) Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

This report was prepared by:

Individual: _____ Date: _____

Company: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

1. Return this form to the regional office in which the site is located or by emailing info.lust@deq.oregon.gov.

2. For all tanks, **except heating oil tanks**, you must submit an *UST Decommissioning Checklist and Site Assessment Report* to the appropriate regional office **within 30 days** of the UST decommissioning. Failure to do so can result in delays to your project and may result in continued bulling for the annual tank permit fees.

3. Copies of the LUST Cleanup Manual and other guidance can be viewed and downloaded from the Leaking Underground Storage Tank Cleanup Guidance web page.

4. For Program assistance Contact the DEQ regional office.

Translation or other formats

Español | 한국어 | 繁體中文 | Русский | Tiếng Việt | العربية
800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age or sex in administration of its programs or activities. Visit DEQ's Civil Rights and Environmental Justice page.

ATTACHMENT A

DEQ NFA Letters

NFA

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

September 16, 2009

JIM TROTTER
CONOCOPHILLIPS COMPANY
1230 W WASHINGTON ST STE 212
TEMPE AZ 85281

Re: ConocoPhillips #2705460
UST Cleanup File No. 26-07-1727
UST Facility ID No. 718

Dear Mr. Trotter:

The Oregon Department of Environmental Quality (DEQ) has completed its review of the information submitted to date concerning a Due Diligence Site Assessment conducted at ConocoPhillips facility #2705460, located at 425 NE Broadway in Portland, Oregon. DEQ has determined that assessment of the site appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-0205 through 340-122-0360. No further action is required at this time subject to the conditions described below.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them:

SITE HISTORY/BACKGROUND

ConocoPhillips facility #2705460 covers an entire city block in Portland, Oregon, bounded by NE Schuyler Street to the north, NE Broadway to the south, NE Grand Avenue to the east, and NE Martin Luther King Jr. Blvd. to the west. The facility consists of Tax Lot 9600 in the southwest quarter of the southwest quarter of Section 26, Township 1 North, Range 1 East of the Willamette Meridian.

Mobil Oil Corporation purchased the site in 1968 and constructed a service station. Mobil Service Station #10-LC2 operated until 1989, when the facility was transferred to British Petroleum (BP) and became BP Service Station #11033. Contamination at the site was first identified in April 1989, when a soil gas survey conducted as part of the property transaction between Mobil and BP identified elevated concentrations of volatiles at the site.

UST DECOMMISSIONING

Four gasoline USTs were originally present at the site: an 11,800-gallon regular UST, a 10,000-gallon unleaded UST, an 8,000-gallon unleaded UST, and a 6,000-gallon super unleaded UST. The four gasoline USTs, plus a 500-gallon used oil UST, were decommissioned by removal from the site in January 1992 and replaced with three 12,000-gallon gasoline USTs. Approximately

1,500 gallons of fuel and rinse water from the USTs were shipped to Fuel Processors in Portland for recycling and disposal. The two fiberglass tanks (the 11,800-gallon and 500-gallon USTs) were disposed of at the Hillsboro Landfill, while the three steel tanks were shipped to Burle Jackson for recycling/reuse.

EXTENT OF CONTAMINATION DEFINED

In March 1990, Rittenhouse-Zeman & Associates (RZA) collected soil samples from four borings at ConocoPhillips facility #2705460. The samples, collected roughly along the four edges of the site, were analyzed for total petroleum hydrocarbons (TPH) by EPA Method 418.1. TPH was detected in all four borings, with a maximum concentration of 540 parts per million (ppm) TPH in the south boring at five feet below ground surface (bgs). No TPH was detected in the same boring at 40 feet bgs.

In January 1991, RZA drilled nine borings at the site (VW-1 through VW-9) for use as vapor extraction wells. Soil samples were collected from all but VW-1 and analyzed for petroleum hydrocarbons by either Method 418.1 or the Hydrocarbon Identification method (HCID). The highest contamination was detected in VW-4, located northeast of the center of the site. TPH was detected at concentrations up to 3,900 ppm, and gasoline-range organics were detected up to 11,700 ppm. The petroleum constituents ethylbenzene (up to 23.6 ppm) and xylenes (up to 49.85 ppm) were also detected.

In April 1991, RZA collected soil samples from a planned groundwater monitoring well (MW-1) on the western edge of the site. No petroleum contamination was detected in the soil samples, and no groundwater was encountered to a depth of 100 feet bgs.

In October 1991, RZA drilled a 10th boring (VW-10) for use as a vapor extraction well. The boring was located just to the south of the contaminated VW-4. Soil samples from the boring showed up to 500 ppm TPH and 1,900 ppm diesel.

In January 1992, during and after the UST decommissioning, the renamed RZA-AGRA collected a total of 52 confirmation soil samples from beneath the USTs, fuel pumps, product lines, and hydraulic hoists at the site. Gasoline was detected in the main tank nest (at concentrations up to 1,470 ppm), beneath the east product lines (up to 4,780 ppm), and beneath the active fuel pump islands (up to 7,320 ppm).

REMEDIAL ACTIONS AND COMPLIANCE MONITORING/SAMPLING

Horizontal vapor extraction lines were installed at ConocoPhillips facility #2705460 in January 1992, and linked to the previously installed vapor extraction wells (except VW-1 and VW-2,

which were abandoned). The lines were installed in the tank excavation pit, beneath the former pump islands, and in the former product line trenches. Vapor wells MW-1, VW-4, and VW-10 were linked together as one vapor extraction system (VES-1), and the remaining wells were linked into a second vapor extraction system (VES-2).

VES-1 and VES-2 began operating in April 1993. RZA-AGRA collected air samples from the systems in April and June 1993 and analyzed the samples for BTEX. All four BTEX contaminants were detected in each system, with maximum concentrations of 8.03 micrograms per liter (ug/l) for benzene, 28.5 ug/l for toluene, 19.4 ug/l for ethylbenzene, and 90.1 ug/l for xylenes.

Although the systems continued to operate, no additional samples were collected until September 1994. AGRA Earth & Environmental collected two air samples (one from each system) at the site every month from September 1994 to June 1995, and then in September and November 1995. The samples were analyzed for BTEX. In September 1994, all four contaminants were detected in each system. Starting in October 1994, no benzene was detected in VES-1, and beginning in November 1994, neither benzene nor ethylbenzene were detected in VES-2. In May and June 1995, however, contaminant concentrations in VES-2 suddenly increased, and benzene and ethylbenzene were detected again. Benzene reappeared in VES-1 in September 1995.

Contaminant concentrations began falling again in 1996. AGRA Earth & Environmental collected air samples in April, June and August 1996 and January 1997, and continued to analyze the samples for BTEX. Beginning in April 1996, only toluene was detected in VES-2. Benzene was last detected in VES-1 in April 1996, and ethylbenzene and xylenes were last detected in VES-1 in August 1996.

AGRA Earth & Environmental collected the final samples from the soil vapor extraction systems in September 1997. The two air samples were analyzed for BTEX by sampling method TO-3. Toluene was detected in VES-1 at 0.6 ug/l and in VES-2 at 0.8 ug/l. No other contaminants were detected. VES-2 continued to operate until October 1998 and removed an estimated 52,456 lbs. of VOCs. VES-1 operated through July 1999 and removed an estimated 92,272 lbs. of VOCs.

In March 2004, URS Corporation collected a total of six soil samples from five shallow borings and one deep boring from around the site to determine the effectiveness of the soil vapor extraction systems. The six samples were analyzed for petroleum products and VOCs. Contaminants were detected in five of the samples, with maximum concentrations of 2,840 ppm gasoline, 736 ppm diesel, 332 ppm heavy oil, 2.48 ppm benzene, 1.76 ppm ethylbenzene, and 1.80 ppm naphthalene.

In October 2007, ATC Associates advanced five borings at the site as part of a Due Diligence Site Assessment. A total of six soil samples were collected from the borings and analyzed for gasoline, diesel, heavy oil, and VOCs. The only significant contamination detected was gasoline in Boring B-2 (located southeast of the UST nest) at a concentration of 32 ppm at 25 feet bgs. No gasoline was detected in the same boring at 35 feet bgs.

CURRENT AND FUTURE GROUNDWATER BENEFICIAL USE DETERMINATION

No groundwater has been encountered at ConocoPhillips facility #2705460 to a depth of 100 feet bgs. The U.S. Geological Survey (USGS) estimates groundwater at the site to be 102 feet bgs. The site is served by the City of Portland's public water supply system, which primarily obtains its water from the Bull Run reservoirs on Mt. Hood, supplemented with groundwater from the Columbia South Shore Wellfield. DEQ identified only one domestic well within a one-mile radius of the site, based on well logs on file with the Oregon Department of Water Resources.

Given the virtual lack of domestic wells in the vicinity of the site, there appears to be no current beneficial use of groundwater in the area. In addition, given the availability of a municipal water supply, no future beneficial use of the groundwater is anticipated.

CURRENT AND FUTURE LAND USE DETERMINATION

ConocoPhillips facility #2705460, along with surrounding properties south of Schuyler Street, is zoned Central Commercial with a Design overlay (CXd) by the City of Portland. Properties to the north of Schuyler Street are zoned Central Employment with a Design overlay (EXd). The Central Commercial zoning is intended to provide for "intense" commercial development with large, closely-spaced buildings and a pedestrian-oriented streetscape. The Central Employment zoning is intended to allow for a variety of uses, including some residential, that needs a central city location. The Design overlays essentially require that redevelopment in the area meet certain Community Design Standards.

With Schuyler Street serving as a clear boundary between the existing zones, it appears reasonably likely that the site will remain zoned for commercial development rather than be rezoned for mixed-use development. Therefore, with a zoning designation favoring commercial and office type developments, the current and reasonably likely future land use of this site is commercial and occupational.

CONTAMINANTS OF INTEREST

Contamination at ConocoPhillips facility #2705460 consists of a mixture of gasoline, diesel, and heavier oils in the soil. The contaminants of interest in gasoline are benzene, toluene,

ethylbenzene, and xylenes (collectively known as "BTEX"), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, isopropylbenzene, n-propylbenzene, naphthalene, methyl tertiary-butyl ether (MTBE), ethylene dibromide, ethylene dichloride, and lead. The contaminants of interest in diesel and heavier oils are a class of chemicals known as polynuclear aromatic hydrocarbons (PAHs).

CONTAMINANTS OF POTENTIAL CONCERN

The following contaminants have been detected in soil and groundwater at ConocoPhillips facility #2705460 at concentrations that exceed one or more of DEQ's Risk-Based Cleanup standards:

- Benzene (at concentrations up to 2.48 ppm in the soil);
- Ethylbenzene (up to 1.76 ppm in the soil);
- Gasoline (up to 2,840 ppm in the soil);
- Naphthalene (up to 1.80 ppm in the soil).

CONCEPTUAL SITE MODEL AND RISK-BASED DETERMINATION

A Conceptual Site Model is a conceptual map of a site that identifies all of the potential ways people may be exposed to contamination at the site, now and in the future. Exposure to the contamination may occur through various routes. For example, residents or occupants of a site may be exposed to soil contamination through direct contact with the soil, or to groundwater contamination by pumping the water from a well and using it for drinking or other domestic purposes. Construction and excavation workers may come into direct contact with contaminated soil or groundwater while digging foundations or utility trenches. The contaminants in soil or groundwater may also volatilize to indoor or outdoor air and be inhaled, or soil contaminants may leach to groundwater and later be ingested.

ConocoPhillips facility #2705460 is zoned Central Commercial with a Design overlay (CXd) by the City of Portland. The intent of the zoning is to provide for "intense" commercial development with large, closely spaced buildings. No residential redevelopment is allowed or anticipated. Consequently, the residential and urban residential exposure scenarios will not be included in the Conceptual Site Model.

Groundwater at the site is estimated to be 102 feet beneath the surface. Given the depth to groundwater, the availability of a municipal water supply, and the virtual lack of water wells in the area, no current or reasonably likely future beneficial use of the groundwater was identified. Consequently, the groundwater ingestion exposure pathway will not be included in the Conceptual Site Model. In addition, because it is unlikely that soil contamination at the site

could leach all the way to groundwater, the soil leaching to groundwater pathway will also not be included in the Conceptual Site Model.

Finally, soil contamination at the site has been detected near the surface in the past, so the direct contact with contaminated soil pathway will be included in the Conceptual Site Model. However, given the estimated depth to groundwater, direct contact with contaminated groundwater will not be included in the Model.

CONTAMINANTS OF CONCERN

Contaminants of Concern at a site are those Contaminants of Potential Concern that exceed DEQ's generic Risk-Based Cleanup (RBC) standards for potential exposure pathways at a site. For ConocoPhillips facility #2705460, the following are the contaminants of concern for the five potential exposure pathways identified in the Conceptual Site Model:

- No soil contaminants at the site are a concern for direct contact under the occupational exposure pathway.
- No soil contaminants at the site are a concern for direct contact under the construction worker exposure pathway.
- No soil contaminants at the site are a concern for direct contact under the excavation worker exposure pathway.
- One soil contaminant at the site is a concern for vapor intrusion into indoor air under the occupational exposure pathway: benzene.
- No soil contaminants at the site are a concern for volatilization to outdoor air under the occupational exposure pathway.

In summary, the only Contaminant of Concern at ConocoPhillips facility #2705460 is benzene.

RISK MANAGEMENT

Five potential exposure pathways were identified in the Conceptual Site Model for Conoco-Phillips facility #2705460. Of the five potential pathways, four are incomplete, and do not show a current or future risk to human health, because no contaminants have been detected at the site in concentrations that exceed DEQ's generic Risk-Based Cleanup (RBC) standards for those pathways. Consequently, no further action is necessary with regards to those pathways.

The remaining potential exposure pathway involves the potential for benzene to volatilize from the soil and enter on-site occupational structures. Benzene was detected in Soil Boring #3 (SB-3) in the area of the east pump island at a concentration of 2.48 ppm in March 2004. DEQ's generic RBC standard for vapor intrusion of benzene into occupational structures is 1.20 ppm. However, URS Corporation reported that SB-3 is located about 45 feet from the current service station building. This distance, combined with the benzene being 20 feet bgs, makes it unlikely that sub-surface benzene vapors could migrate to the building in significant concentrations. In addition, the other five soil samples collected in March 2004, as well as the six soil samples collected in October 2007, showed benzene concentrations well below the RBC. Consequently, there appears to be no actual risk to current site occupants through the vapor intrusion pathway, so no further action is necessary with regard to this pathway.

ECOLOGICAL RISK EVALUATION

No ecological risk evaluation has been conducted at ConocoPhillips facility #2705460. The site is located in an urbanized area in the City of Portland. No natural environments are present within 1,000 feet of the site, and no surface water bodies have been identified within 1,500 feet of the site. Due to the lack of natural environments, and because the contamination is below the surface, no adverse impacts to ecological receptors are anticipated.

PUBLIC NOTICE

No public notice and comment was provided for the proposed No Further Action determination at ConocoPhillips facility #2705460. DEQ previously made an NFA determination for this site on November 8, 2006. (See file #26-89-0073). The current file was opened for the site when SECOR International reported that contamination had been detected in the soil during a Due Diligence Site Assessment in October 2007. Because the contaminant concentrations were consistent with what was left behind at the site in 2006, no additional public notice of the contamination was deemed to be necessary.

NFA DETERMINATION

Contamination remains at ConocoPhillips facility #2705460. DEQ approves leaving the contamination in-place because the contamination does not present an unacceptable risk to human health, safety, welfare, or the environment. DEQ's approval to leave contamination at the site is based upon the site conditions and controls described above.

Any future work in the contaminated areas of the property, including any sampling, management, and disposal of contaminated soil, sediment and/or groundwater must be performed in accordance with DEQ regulations and policies.

DEQ's determination that no further action is necessary will not apply if new or undisclosed facts show that the cleanup does not comply with the referenced rules. In addition, this determination only applies to the contamination described above, and does not apply to contamination that may have originated from other sources not addressed by this letter.

DEQ recommends keeping a copy of all the documentation associated with the contamination with your permanent facility records.

Your efforts to comply with the regulations to ensure that your facility has been adequately cleaned up have been appreciated. If you have any questions, please contact me at (503) 229-5369.

Respectfully,

Kevin Dana

Kevin Dana, UST Cleanup Specialist
UST Cleanup and Compliance Section

Michael H. Kortenhof, Manager
UST Section and Hazardous Waste Compliance

cc: Justin Dauphinais
Stantec Consulting Corp
7730 SW Mohawk St
Tualatin OR 97062

Todd Vanek
Delta Consultants
4640 SW Macadam Ave Ste 110
Portland OR 97239

Kevin Miller
ATC Associates Inc
9185 S Farmer Ave Ste 107
Tempe AZ 85284

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

November 8, 2006

ERIN GARNER
ENVIRONMENTAL BUSINESS MANAGER
ATLANTIC RICHFIELD COMPANY
PO BOX 1257
SAN RAMON CA 94583

Re: BP Station 11033
UST Cleanup File No. 26-89-0073
UST Facility No. 718

Dear Mr. Garner:

The Department of Environmental Quality (DEQ) has been overseeing the cleanup of petroleum contamination at the site of the BP Station 11033 located at 425 NE Broadway in Portland, Oregon. Based on information contained in the file, the DEQ has determined the site appears to have been investigated and cleaned up to commercial standards in accordance with Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360, and that no further action is required at this time.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them, including:

1. The site is an active gasoline service station. The site vicinity has a history of industrial, commercial, and residential use. Several commercial and industrial businesses have been located on the site since at least 1908. These businesses have included dry cleaners, an auto repair shop, and service stations. Mobil Oil obtained the station in 1968. The station was purchased by BP in 1989.

2. In April 1989, an initial investigation consisting of a twenty six point soil-gas survey was conducted as a part of a pre-property transfer assessment. Petroleum constituents were detected near the eastside product line trenches and around the and pump islands.

3. In March 1990, four borings were drilled to a depth of approximately 40 feet below ground surface (bgs). Total petroleum hydrocarbons (TPH) were detected at concentrations of 540 parts per million (ppm) at depths ranging from six to 16 ft. below bgs.

4. In 1991, nine borings (VW-1 through VW-10) were drilled and a monitoring well (MW-1) was installed. Vapor extraction wells were installed in some of the borings to depths ranging from 40 to 100 ft. bgs. Petroleum constituents were detected near the former pump islands. A concentration of 3,900 ppm TPH was detected at a depth of 61 ft. bgs in a

5. a soil sample collected from VW-4. Boring VW-4 was terminated at 62.4 ft. bgs due to very difficult drilling conditions and explosivity readings in excess of 20% of the lower explosive limit. Groundwater was not encountered above a depth of 100 ft. bgs. A solvent-like odor, later ascribed to mineral spirit, was detected in soil samples collected from VW-4 starting at a depth of approximately 30 ft bgs. No records were found to document the mineral spirit release, and the source may be related to the former dry cleaning activities.

6. In May 1992 during site renovations, four gasoline underground storage tanks (USTs) and one used oil UST were decommissioned. Forty soil samples were collected from three tank excavations, beneath the product lines, and pump islands. Petroleum hydrocarbons were noted from four to approximately 14 ft. bgs in the main gasoline UST cavity. A gasoline concentration of 325 ppm was detected in a confirmation sample collected from 14 ft. bgs. Approximately half of the soils removed during the tank decommissioning were placed back into the main UST cavity to a depth of six ft. bgs. Petroleum hydrocarbons were also observed beneath the former pump islands and product line trenches to a depth of approximately six ft. bgs. Approximately 450 cubic yards of petroleum contaminated soils were removed and transported to a permitted regional thermal incineration facility formerly operated by BP in Gresham, Oregon.

7. In January 1992, a bi-level soil vapor extraction system (VES) was installed. The upper portion of the system was designed to remediate the petroleum hydrocarbons at a shallow depth and the lower portion to remove the mineral spirit present at depth of approximately 30 ft. to 80 ft. bgs. The system operated from 1993 to 1998 and removed a total of approximately 140,000 lbs. of petroleum hydrocarbons.

8. In March 2004, a subsurface investigation was conducted to assess the effectiveness of the VES and the vertical extent of petroleum hydrocarbons previously encountered at 62.5 ft. bgs in the vicinity of VW-4. Six direct push borings were placed around the area remediated by the VES and the historical sample locations with elevated petroleum hydrocarbons of 3,900 ppm near VW-4. The shallow borings were advanced to a maximum depth of 20 ft. bgs. A boring was advanced to a depth of 100 ft. bgs. Gasoline-range hydrocarbons were detected at concentrations of 663 ppm and 24.5 ppm at depths of 67-70 ft. bgs. An assessment of the hydrocarbons chromatograms indicated a pattern most closely resembling a mineral spirits. No VOCs were detected in the soil samples. Groundwater was not encountered during the investigation.

9. During DEQ's internal review, concerns were raised regarding the potential for off-site migration of the release based on a soil gas survey performed in 1989, and investigation of other site features such as sumps. Investigations indicated that groundwater has not been encountered at depths as great as 100 ft. bgs at the site, and the soil sampling and analysis have shown that the release has not reached the groundwater for any off-site

migration of the contamination. The potential has been further reduced by the remediation of the release by soil vapor extraction. Confirmatory soil samples indicated adequate delineation of the release.

Conclusions:

The SVE treatment system has effectively reduced residual petroleum hydrocarbons at the former south and east dispenser islands, and the side of the current UST cavity location. The highest TPH-Gx concentration detected was 2,840 ppm in a sample collected at a depth of 20 ft. bgs. The highest benzene concentration detected was 2.48 ppm at a depth of 20 ft. bgs exceeding the 1.2 ppm DEQ's occupational soil risk-based concentration for vapor intrusion into buildings. However, the closest building is approximately 45 ft. away, and therefore the exposure pathway is not a risk factor. The risk assessment conducted, investigations and analytical results have indicated that soil concentrations of petroleum hydrocarbons whole products and individual constituents were below risk-based standards for the site's applicable exposure pathways, namely: occupational dermal contact ingestion and inhalation; volatilization to outdoor and indoor air; and construction and excavation worker. The groundwater underlying the site appears to be at a depth greater than 100 feet bgs.

This DEQ determination will not apply if new or undisclosed facts show the cleanup does not comply with referenced rules. This determination also does not apply to any conditions at the site other than the release of the petroleum product specifically addressed in the July 28, 2004 GeoEngineers Risk-Based Closure Report.

Please note that pursuant to OAR 340-122-360 (2), you must retain a copy of your report until ten (10) years after the first transfer of the property.

Your efforts to comply with the regulations to ensure that your property has been adequately cleaned up have been appreciated. If you have any questions, please feel free to contact me at (503) 229-5858.

Sincerely,

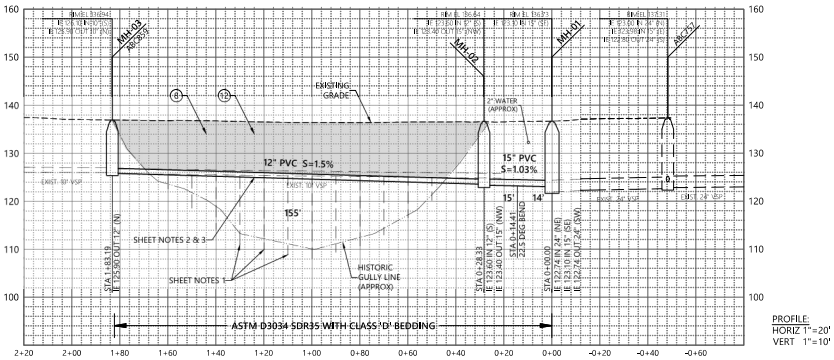
Bijan N. Pour
UST Cleanup and Compliance Section
NWR Tanks Program

cc: John Glass
URS Corporation
111 SW Columbia, Suite 1500
Portland OR 97201

ATTACHMENT C

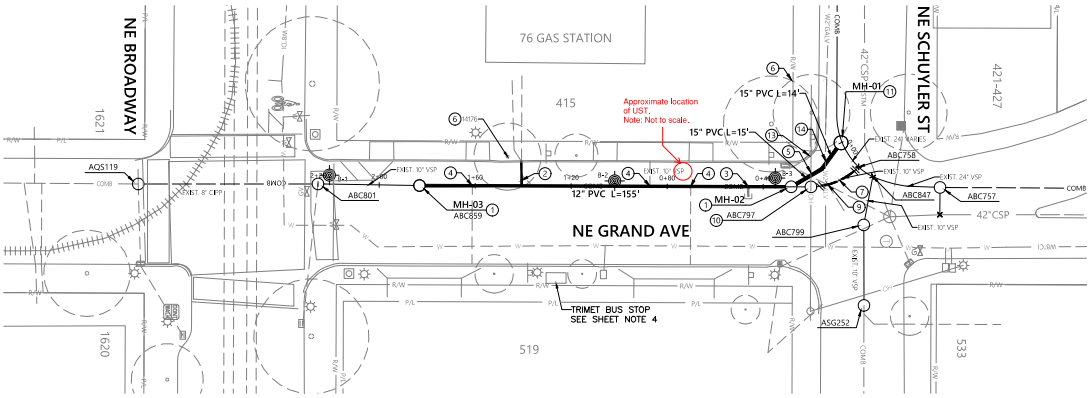
UST Information from City

NE BROADWAY | NE GRAND AVE | NE SCHUYLER ST



PROFILE:
HORIZ 1"=20'
VERT 1"=10'

SEWER CENTERLINE STATIONING



CONSTRUCTION NOTES:

1. CONSTRUCT 48" MAINTENANCE HOLE. MH LID CANNOT BE IN CROSSWALK.
2. CONSTRUCT SERVICE LATERAL USING 6-INCH ASTM D3034 SDR 35 PVC TO CURB OR AS DIRECTED BY OWNER.
3. DO NOT REINSTATE OR RECONSTRUCT PLUGGED LATERAL.
4. LOCATE AND INSPECT LATERAL. IF LATERAL IS: NOT ACTIVE, THEN DO NOT REINSTATE; ACTIVE, THEN REINSTATE; OR ACTIVE AND DEFECTIVE, THEN RECONSTRUCT LATERAL TO FACE OF CURB OR AS DIRECTED BY OWNER.
5. PROTECT EXISTING UTILITY IN PLACE.
6. PRUNE TREE BRANCHES AS APPROVED BY URBAN FORESTER.
7. ABANDON EXISTING PIPE.
8. NON-HAZARDOUS CONTAMINATED MEDIA IDENTIFIED. SEE PROJECT SPECIAL PROVISIONS 00291 AND "SUMMARY OF PROJECT SITE CONTAMINANTS" IN ITS APPENDIX.
9. INSPECT LATERAL AT SEWER TO BE ABANDONED. IF LATERAL IS ACTIVE, THEN RECONNECT TO PROPOSED SEWER.
10. ABANDON MAINTENANCE HOLE.
11. CONSTRUCT 60" MAINTENANCE HOLE. SEE MH DETAIL CD01. MH LID CANNOT BE IN CROSSWALK.
12. LIGHTWEIGHT BACKFILL (75PCF OR LESS) REQUIRED. SEE SPECIAL PROVISIONS 00405 TRENCH EXCAVATION, BEDDING, AND BACKFILL.
13. PROTECT AND PRESERVE CURB ALONG CORNER RADIUS.
14. USE CLASS "E" BACKFILL BETWEEN THE NEW 15" SEWER AND THE EXISTING WATER MAIN. WRAP WATER MAIN IN POLYETHYLENE ENCASEMENT TAPING. CLSM TO BE FLY ASH FREE & LEAN.

SHEET NOTES:

1. EXISTING HISTORIC WOOD TRESTLES UNDER EXISTING PIPE; SIZE & LOCATION APPROX FROM 1894 AS-BUILT #20179; SEE APPENDIX IN SPECIAL PROVISIONS FOR AS-BUILTS DTLS.
2. EXCAVATE FOR FOUNDATION STABILIZATION FROM MH-02 TO MH-03 ONE (1) FOOT BELOW DESIGN PIPE INVERT OR AS DIRECTED BY OWNER'S REPRESENTATIVE
3. NOTIFY OWNER'S REPRESENTATIVE FOR INSPECTION OF SUBGRADE AND APPROVAL PRIOR TO PLACEMENT OF TRENCH STABILIZATION MATERIAL. WRAP STABILIZATION MATERIAL IN WOVEN SEPARATION GEOTEXTILE CONFORMING TO TABLE 2320-4 OF COP STANDARD CONSTRUCTION SPECIFICATIONS.
4. CONTACT TRIMET AT FOC@TRIMET.ORG A MINIMUM OF 5 BUSINESS DAYS PRIOR TO SERVICE DISRUPTION.

SCALE
20 0 10 20 40
SCALE FEET

C:\CIVIL 3D PROJECTS\E11499 NE GRAND AND SCHUYLER\E11499_C-SHEETS.DWG 6/6/2023 MCALLISTER, JAY

NO.	DATE	DESCRIPTION	APPD.
		REVISION	

XREF(S) USED: E11499_XRAY\E11499_DESIGN\E11499_PLOT.DWG
ROTATION ANGLE: 90.00°
CONSTRUCTED BY:
PROJECT COMPLETED:
DAY CORRECTED BY: CHECKED BY:
FINAL MAP DATA
DRAWING NAME: E11499_C-SHEETS.dwg

DESIGNED BY: MR
DRAWN BY: JNM
CHECKED BY:
DATE APPROVED:
ENGR. SUPV.: ACD
ENGR. OF MCE.: LMH
CONST. ENGR.: EAM

CITY OF PORTLAND
ENVIRONMENTAL SERVICES

REGISTERED PROFESSIONAL ENGINEER
17811
OREGON
JULY 25, 1995
TERENCE W. CHIN
Expires: 12/31/2023

NE GRAND AVE S OF NE SCHUYLER
SEWER REHABILTATION

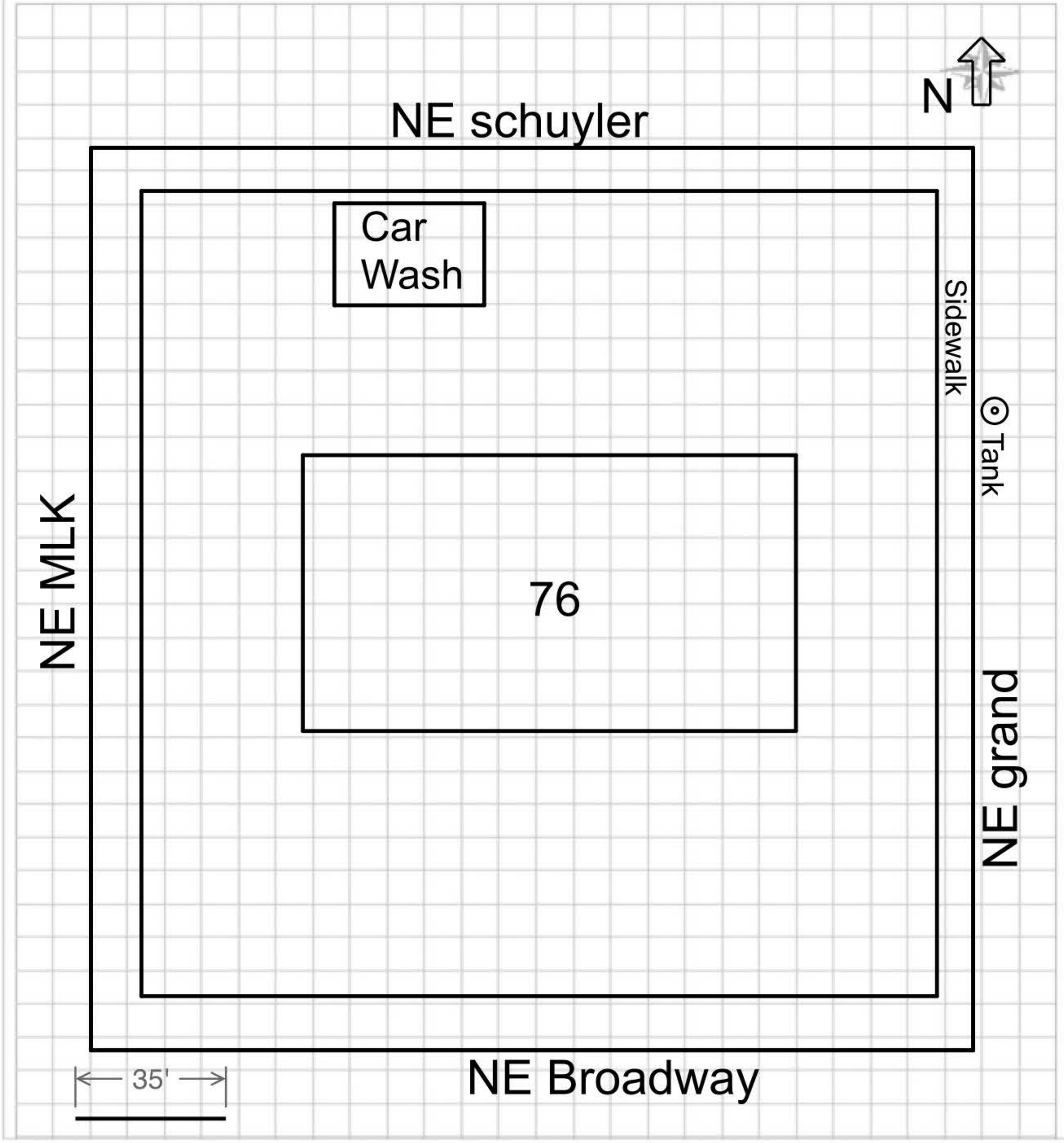
PLAN AND PROFILE
NE GRAND AVENUE
STA 0+00 TO STA 1+80

TAX SECTION: 2831
JOB NO.: E11499
SHEET NO.: C01
2 OF 4

Alpha environmental

Site Vicinity Map

Job No: Date: Investigator:



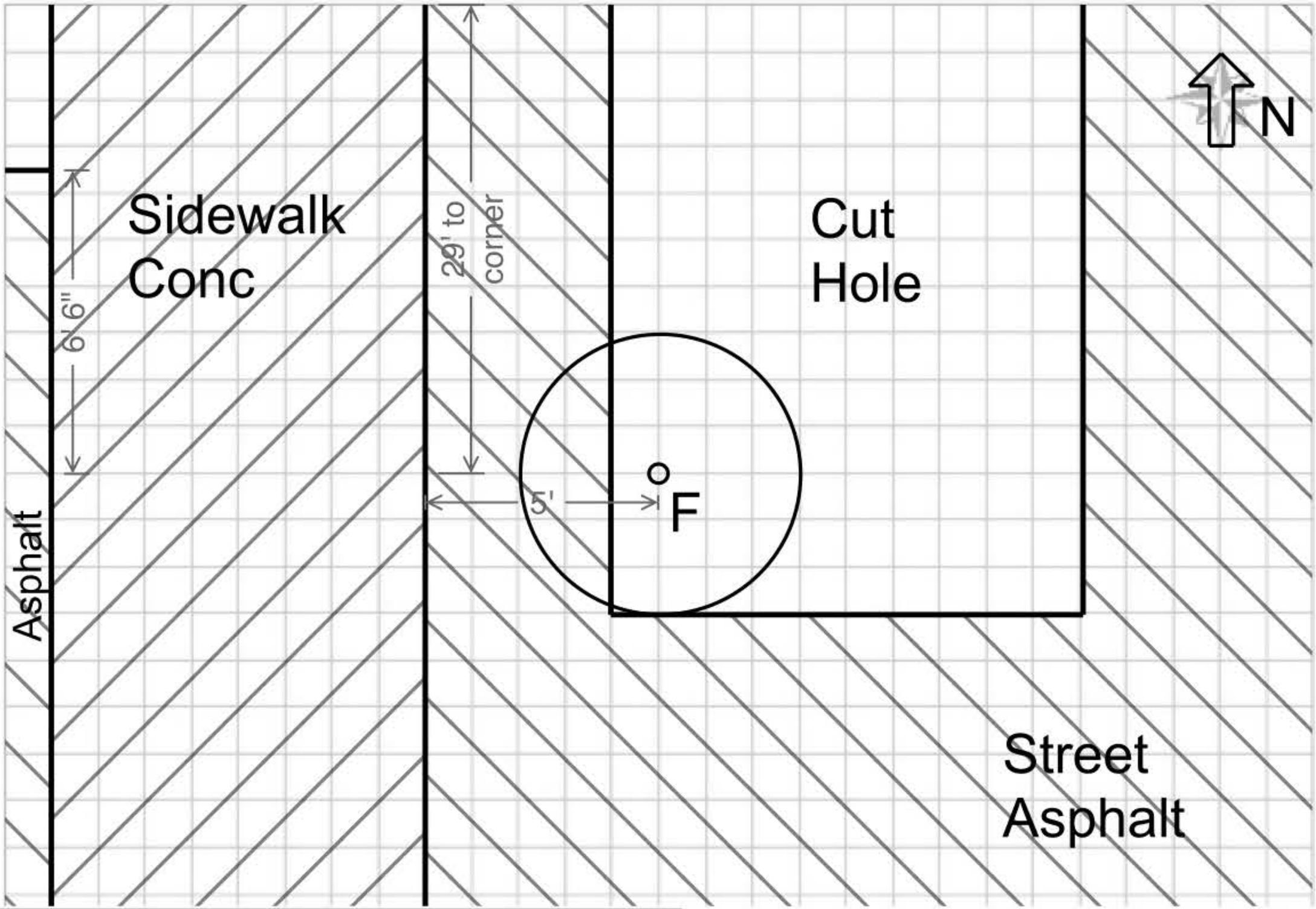
Alpha environmental

Tank Notes

Job No:

Date:

Investigator: Tyler Gass



NE Grand S/o Schuyler MCC Sewer Rehab
E11499.C46
C.M. Josh Nault

Orrco™
The oil recycler.

Oil Re-Refining Company, Inc.

Josh Nault
DPR 12365850
DPO 22339825

Invoice

Date	Invoice #
2/16/2024	463105

5000993918 BLN

Bill To	Ship To
Portland, City of BES-CSA 1120 SW 5th Ave Rm 613 Portland, OR 97204-1912	Portland, City of BES-CSA 415 NE Broadway Portland, OR 97227-1807

Resell Expires	

Option	P.O. Number	Terms	Due Date	Ship Date	Bill of Lading	Account #
Email		30 Days Net	3/17/2024	2/15/2024	2400610	13161

Item Code	Description	U/M	Quantity	Price Each	Amount
Wastewater (fue...	For recycling, CDT test: ND	Gal	1,650	0.75	1,237.50
Hydro Clor D T...	Field test for chlorinates in aqueous materials	Ea	1	40.00	40.00
Truck & Gear L...	Per hour (includes stop fee, job time and travel time when applicable).	Ea	1	120.00	120.00

Total $1,397.50

Phone #	Fax #	E-mail
503-286-8352	503-286-5027	ar@orrcorecycles.com

We accept all major credit cards.

Remit payment to: 4150 N Suttle Rd. Portland, OR 97217-7717
Unpaid invoices past 30 days will incure a 1.5% per month finance charge.

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

LABORATORY ANALYSIS REPORT

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Project Mgr:	Bethany Nabhan
Received:	2/13/24 12:38		
Submitted By:	CSA		

Sample	Laboratory ID	Matrix	Type	Sample Collection Date Start	End	Qualifier
Tank N. 6ft	W24B119-01	Soil	Grab	02/13/24 11:50	02/13/24 11:50	

Analyte	Result	Units	MRL	Dil.	Batch	Prepared	Analyzed	Method	Qualifier
Tank N. 6ft : W24B119-01									
General Chemistry									
Total solids	**73.2**	% W/W	0.02		B24B221	02/13/24	02/14/24	SM 2540G	
Total Metals									
Total Metals by ICPMS									
Cadmium	**0.138**	mg/kg dry	0.060	20	B24B224	02/14/24	02/14/24	EPA 6020	
Chromium	**24.5**	mg/kg dry	0.119	20	B24B224	02/14/24	02/14/24	EPA 6020	
Lead	**39.5**	mg/kg dry	0.239	20	B24B224	02/14/24	02/14/24	EPA 6020	
Fuels									
Diesel/Oil Hydrocarbons by GC-FID									F7
Diesel	**2900**	mg/kg dry	31	1	B24B238	02/14/24	02/15/24	NWTPH-Dx	F0, M1
Lube oil	**82**	mg/kg dry	63	1	B24B238	02/14/24	02/15/24	NWTPH-Dx	F2
Surrogate	***Result***		***Expected***	***%Rec***	***Limits(%)***				
o-Terphenyl	*29.5*	mg/kg dry	*25.1*	*118%*	*50-150*	*B24B238*	*02/14/24*	*02/15/24*	*NWTPH-Dx*
Hydrocarbon Scan by GC-FID									
Gasoline	**DET**	mg/kg dry	31	1	B24B219	02/13/24	02/14/24	NWTPH-HCID	F0
Diesel	**DET**	mg/kg dry	76	1	B24B219	02/13/24	02/14/24	NWTPH-HCID	F3
Lube oil	ND	mg/kg dry	153	1	B24B219	02/13/24	02/14/24	NWTPH-HCID	
Surrogate	***Result***		***Expected***	***%Rec***	***Limits(%)***				
o-Terphenyl	*16.6*	mg/kg dry	*15.3*	*109%*	*50-150*	*B24B219*	*02/13/24*	*02/14/24*	*NWTPH-HCID*

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics

Volatile Organic Compounds by GCMS — F11

Analyte	Result	Units	MRL	Dil.	Batch	Prepared	Analyzed	Method	Qualifier
Acetone	ND	ug/kg dry	1670	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Benzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Bromobenzene	ND	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Bromochloromethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Bromodichloromethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Bromoform	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Bromomethane	ND	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	V3
2-Butanone	ND	ug/kg dry	835	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
n-Butylbenzene	**5850**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
sec-Butylbenzene	**8090**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
tert-Butylbenzene	**465**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Carbon disulfide	ND	ug/kg dry	167	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Carbon tetrachloride	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Chlorobenzene	ND	ug/kg dry	334	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Chloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	L1
Chloroform	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Chloromethane	ND	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
2-Chlorotoluene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
4-Chlorotoluene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
1,2-Dibromo-3-chloropropane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Dibromochloromethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2-Dibromoethane	ND	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Dibromomethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2-Dichlorobenzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,3-Dichlorobenzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
1,4-Dichlorobenzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Dichlorodifluoromethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,1-Dichloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2-Dichloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,1-Dichloroethene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
cis-1,2-Dichloroethene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
trans-1,2-Dichloroethene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2-Dichloropropane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,3-Dichloropropane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
2,2-Dichloropropane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,1-Dichloropropene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
cis-1,3-Dichloropropene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
trans-1,3-Dichloropropene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Ethylbenzene	**156**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Hexachlorobutadiene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	V3
2-Hexanone	ND	ug/kg dry	417	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics

Analyte	Result	Units	MRL	Dil.	Batch	Prepared	Analyzed	Method	Qualifier
Volatile Organic Compounds by GCMS									F11
Isopropylbenzene	**4710**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
4-Isopropyltoluene	**648**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
4-Methyl-2-pentanone (MIBK)	ND	ug/kg dry	417	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Methylene chloride	ND	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Naphthalene	**356**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
n-Propylbenzene	**8110**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Styrene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
1,1,1,2-Tetrachloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
1,1,2,2-Tetrachloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Tetrachloroethene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Toluene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M25
1,2,3-Trichlorobenzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2,4-Trichlorobenzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,1,1-Trichloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,1,2-Trichloroethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Trichloroethene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Trichlorofluoromethane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2,3-Trichloropropane	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
1,2,4-Trimethylbenzene	**2560**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
1,3,5-Trimethylbenzene	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M25, M4
Vinyl acetate	ND	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
Vinyl chloride	ND	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	
m,p-Xylene	**262**	ug/kg dry	83.5	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
o-Xylene	**150**	ug/kg dry	41.7	50	B24B218	02/13/24 14:00	02/13/24	EPA 8260	M4
Surrogate	***Result***		***Expected***	***%Rec***	***Limits(%)***				
Dibromofluoromethane	*47.8*	ug/L	*50.0*	*96%*	*80-120*	*B24B218*	*02/13/24 14:00*	*02/13/24*	*EPA 8260*	
Toluene-d8	*52.4*	ug/L	*50.0*	*105%*	*80-120*	*B24B218*	*02/13/24 14:00*	*02/13/24*	*EPA 8260*	
4-Bromofluorobenzene	*107*	ug/L	*50.0*	*214%*	*80-120*	*B24B218*	*02/13/24 14:00*	*02/13/24*	*EPA 8260*	*SU2*

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Analyte	Result	Units	MRL	Dil.	Batch	Prepared	Analyzed	Method	Qualifier
Semivolatile Organics - SIM									
Polynuclear Aromatic Hydrocarbons by GCMS-SIM									
Acenaphthene	ND	ug/kg dry	50	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Acenaphthylene	ND	ug/kg dry	50	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Anthracene	ND	ug/kg dry	50	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Benzo(a)anthracene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Benzo(a)pyrene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Benzo(b)fluoranthene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Benzo(g,h,i)perylene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Benzo(k)fluoranthene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Chrysene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Dibenzo(a,h)anthracene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Fluoranthene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Fluorene	ND	ug/kg dry	50	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Indeno(1,2,3-cd)pyrene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Naphthalene	ND	ug/kg dry	200	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	D4
Phenanthrene	ND	ug/kg dry	50	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Pyrene	ND	ug/kg dry	25	20	B24B238	02/14/24	02/14/24	EPA 8270-SIM	
Surrogate	***Result***		***Expected***	***%Rec***	***Limits(%)***				
2-Methylnaphthalene-d10	*130*	ug/kg dry	*125*	*101%*	*31-129*	*B24B238*	*02/14/24*	*02/14/24*	*EPA 8270-SIM*
Fluoranthene-d10	*130*	ug/kg dry	*125*	*105%*	*63-132*	*B24B238*	*02/14/24*	*02/14/24*	*EPA 8270-SIM*
Tank N. 6ft : W24B119-01RE1									
Volatile Organics									
NWTPH-Gx by GCMS									F11
Gasoline	**3920**	mg/kg dry	83.5	500	B24B218	02/13/24 14:00	02/13/24	NWTPH-Gx	
Surrogate	***Result***		***Expected***	***%Rec***	***Limits(%)***				
Dibromofluoromethane	*0.0468*	mg/L	*0.0500*	*94%*	*50-150*	*B24B218*	*02/13/24 14:00*	*02/13/24*	*NWTPH-Gx*
Toluene-d8	*0.0519*	mg/L	*0.0500*	*104%*	*50-150*	*B24B218*	*02/13/24 14:00*	*02/13/24*	*NWTPH-Gx*

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Quality Control Report

General Chemistry - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Total Solids - Batch B24B221									
Blank (B24B221-BLK1)									
Total solids	ND	% W/W	0.02					02/13/24 :02/14/24	B2
Duplicate (B24B221-DUP1)			**Source: W24B119-01**						
Total solids	**72.6**	% W/W	0.02		73.2		0.8 (5)	02/13/24 :02/14/24	

Total Metals - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Total Metals by ICPMS - Batch B24B224									
Blank (B24B224-BLK1)									
Cadmium	ND	mg/kg wet	0.025					02/14/24 :02/14/24	
Chromium	ND	mg/kg wet	0.050					02/14/24 :02/14/24	
Lead	ND	mg/kg wet	0.100					02/14/24 :02/14/24	
Standard Reference Material (B24B224-SRM1)									
Cadmium	**231**	mg/kg wet	1.20	267		87%		02/14/24 :02/14/24	
Chromium	**151**	mg/kg wet	2.39	159		95%		02/14/24 :02/14/24	
Lead	**124**	mg/kg wet	4.78	132		94%		02/14/24 :02/14/24	
Duplicate (B24B224-DUP1)			**Source: W24B055-01**						
Cadmium	**1.15**	mg/kg dry	0.314		1.17		1 (20)	02/14/24 :02/14/24	
Chromium	**37.2**	mg/kg dry	0.628		38.0		2 (20)	02/14/24 :02/14/24	
Lead	**23.6**	mg/kg dry	1.26		23.2		2 (20)	02/14/24 :02/14/24	
Matrix Spike (B24B224-MS1)			**Source: W24B055-01**						
Cadmium	**127**	mg/kg dry	1.61	129	ND	98% *(75-125)*		02/14/24 :02/14/24	
Chromium	**418**	mg/kg dry	3.22	387	38.0	98% *(75-125)*		02/14/24 :02/14/24	
Lead	**665**	mg/kg dry	6.45	645	23.2	100% *(75-125)*		02/14/24 :02/14/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Fuels - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
Diesel/Oil Hydrocarbons by GC-FID - Batch B24B238									
Blank (B24B238-BLK1)									**F7**
Diesel	ND	mg/kg wet	25					02/14/24 :02/15/24	
Lube oil	ND	mg/kg wet	50					02/14/24 :02/15/24	
Surrogate									
o-Terphenyl	*22.7*	mg/kg wet		*20.0*		113% *(50-150)*		02/14/24 :02/15/24	
LCS (B24B238-BS1)									**F7**
Diesel	**391**	mg/kg wet	25	400		98% *(50-150)*		02/14/24 :02/15/24	
Lube oil	**386**	mg/kg wet	50	400		97% *(50-150)*		02/14/24 :02/15/24	
Surrogate									
o-Terphenyl	*22.8*	mg/kg wet		*20.0*		114% *(50-150)*		02/14/24 :02/15/24	
Duplicate (B24B238-DUP2)			**Source: W24B119-01**						**F7**
Diesel	**1630**	mg/kg dry	31		2870		55 (50)	02/14/24 :02/15/24	F0, M1
Lube oil	ND	mg/kg dry	63		82.5		(50)	02/14/24 :02/15/24	
Surrogate									
o-Terphenyl	*30.2*	mg/kg dry		*25.1*		120% *(50-150)*		02/14/24 :02/15/24	
Hydrocarbon Scan by GC-FID - Batch B24B219									
Blank (B24B219-BLK1)									
Gasoline	ND	mg/kg wet	18					02/13/24 :02/14/24	
Diesel	ND	mg/kg wet	45					02/13/24 :02/14/24	
Lube oil	ND	mg/kg wet	91					02/13/24 :02/14/24	
Surrogate									
o-Terphenyl	*8.56*	mg/kg wet		*9.09*		94% *(50-150)*		02/13/24 :02/14/24	
Duplicate (B24B219-DUP1)			**Source: W24B119-01**						
Gasoline	**DET**	mg/kg dry	26		DET			02/13/24 :02/14/24	F0
Diesel	**DET**	mg/kg dry	65		DET			02/13/24 :02/14/24	F3
Lube oil	ND	mg/kg dry	131		ND			02/13/24 :02/14/24	
Surrogate									
o-Terphenyl	*13.7*	mg/kg dry		*13.1*		105% *(50-150)*		02/13/24 :02/14/24	

Reported: 02/16/24 11:04

Cara Jung, Laboratory Coordinator QA/QC

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
NWTPH-Gx by GCMS - Batch B24B218									
Blank (B24B218-BLK1)									
Gasoline	ND	mg/kg wet	5.00					02/13/24 :02/13/24	
Surrogate									
Dibromofluoromethane	*0.0478*	mg/L		*0.0500*		96% *(50-150)*		02/13/24 :02/13/24	
Toluene-d8	*0.0492*	mg/L		*0.0500*		98% *(50-150)*		02/13/24 :02/13/24	
LCS (B24B218-BS2)									
Gasoline	**41.5**	mg/kg wet	5.00	50.0		83% *(70-130)*		02/13/24 :02/13/24	
Surrogate									
Dibromofluoromethane	*0.0458*	mg/L		*0.0500*		92% *(50-150)*		02/13/24 :02/13/24	
Toluene-d8	*0.0496*	mg/L		*0.0500*		99% *(50-150)*		02/13/24 :02/13/24	
Duplicate (B24B218-DUP1)			**Source: W24B119-01**						
Gasoline	**1780**	mg/kg dry	8.36		2290		25 (20)	02/13/24 :02/13/24	E
Surrogate									
Dibromofluoromethane	*0.0438*	mg/L		*0.0500*		88% *(50-150)*		02/13/24 :02/13/24	
Toluene-d8	*0.0727*	mg/L		*0.0500*		145% *(50-150)*		02/13/24 :02/13/24	
Volatile Organic Compounds by GCMS - Batch B24B218									
Blank (B24B218-BLK1)									
Acetone	ND	ug/kg wet	1000					02/13/24 :02/13/24	
Benzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Bromobenzene	ND	ug/kg wet	50.0					02/13/24 :02/13/24	
Bromochloromethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Bromodichloromethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Bromoform	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Bromomethane	ND	ug/kg wet	50.0					02/13/24 :02/13/24	V3
2-Butanone	ND	ug/kg wet	500					02/13/24 :02/13/24	
n-Butylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
sec-Butylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
tert-Butylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Carbon disulfide	ND	ug/kg wet	100					02/13/24 :02/13/24	
Carbon tetrachloride	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Chlorobenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Chloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	L1
Chloroform	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Chloromethane	ND	ug/kg wet	50.0					02/13/24 :02/13/24	
2-Chlorotoluene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
4-Chlorotoluene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2-Dibromo-3-chloropropane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Dibromochloromethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2-Dibromoethane	ND	ug/kg wet	50.0					02/13/24 :02/13/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
Blank (B24B218-BLK1)									
Dibromomethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2-Dichlorobenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,3-Dichlorobenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,4-Dichlorobenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Dichlorodifluoromethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1-Dichloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2-Dichloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1-Dichloroethene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
cis-1,2-Dichloroethene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
trans-1,2-Dichloroethene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2-Dichloropropane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,3-Dichloropropane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
2,2-Dichloropropane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1-Dichloropropene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
cis-1,3-Dichloropropene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
trans-1,3-Dichloropropene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Ethylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Hexachlorobutadiene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	V3
2-Hexanone	ND	ug/kg wet	250					02/13/24 :02/13/24	
Isopropylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
4-Isopropyltoluene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg wet	250					02/13/24 :02/13/24	
Methylene chloride	ND	ug/kg wet	50.0					02/13/24 :02/13/24	
Naphthalene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
n-Propylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Styrene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1,1,2-Tetrachloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1,2,2-Tetrachloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Tetrachloroethene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Toluene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2,3-Trichlorobenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2,4-Trichlorobenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1,1-Trichloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,1,2-Trichloroethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Trichloroethene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Trichlorofluoromethane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2,3-Trichloropropane	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,2,4-Trimethylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
1,3,5-Trimethylbenzene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
Blank (B24B218-BLK1)									
Vinyl acetate	ND	ug/kg wet	50.0					02/13/24 :02/13/24	
Vinyl chloride	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
m,p-Xylene	ND	ug/kg wet	50.0					02/13/24 :02/13/24	
o-Xylene	ND	ug/kg wet	25.0					02/13/24 :02/13/24	
Surrogate									
Dibromofluoromethane	*47.2*	ug/L		*50.0*		94% *(80-120)*		02/13/24 :02/13/24	
Toluene-d8	*51.8*	ug/L		*50.0*		104% *(80-120)*		02/13/24 :02/13/24	
4-Bromofluorobenzene	*49.3*	ug/L		*50.0*		99% *(80-120)*		02/13/24 :02/13/24	
LCS (B24B218-BS1)									
Acetone	**4828**	ug/kg wet	1000	5000		97% *(70-130)*		02/13/24 :02/13/24	
Benzene	**1063**	ug/kg wet	25.0	1000		106% *(70-130)*		02/13/24 :02/13/24	
Bromobenzene	**1044**	ug/kg wet	50.0	1000		104% *(70-130)*		02/13/24 :02/13/24	
Bromochloromethane	**1022**	ug/kg wet	25.0	1000		102% *(70-130)*		02/13/24 :02/13/24	
Bromodichloromethane	**1004**	ug/kg wet	25.0	1000		100% *(70-130)*		02/13/24 :02/13/24	
Bromoform	**964.5**	ug/kg wet	25.0	1000		96% *(70-130)*		02/13/24 :02/13/24	
Bromomethane	**143.5**	ug/kg wet	50.0	1000		14% *(70-130)*		02/13/24 :02/13/24	V3
2-Butanone	**5369**	ug/kg wet	500	5000		107% *(70-130)*		02/13/24 :02/13/24	
n-Butylbenzene	**884.5**	ug/kg wet	25.0	1000		88% *(70-130)*		02/13/24 :02/13/24	
sec-Butylbenzene	**1014**	ug/kg wet	25.0	1000		101% *(70-130)*		02/13/24 :02/13/24	
tert-Butylbenzene	**989.5**	ug/kg wet	25.0	1000		99% *(70-130)*		02/13/24 :02/13/24	
Carbon disulfide	**2048**	ug/kg wet	100	2000		102% *(70-130)*		02/13/24 :02/13/24	
Carbon tetrachloride	**892.5**	ug/kg wet	25.0	1000		89% *(70-130)*		02/13/24 :02/13/24	
Chlorobenzene	**985.0**	ug/kg wet	25.0	1000		98% *(70-130)*		02/13/24 :02/13/24	
Chloroethane	**226.0**	ug/kg wet	25.0	1000		23% *(70-130)*		02/13/24 :02/13/24	L1
Chloroform	**991.0**	ug/kg wet	25.0	1000		99% *(70-130)*		02/13/24 :02/13/24	
Chloromethane	**988.0**	ug/kg wet	50.0	1000		99% *(70-130)*		02/13/24 :02/13/24	
2-Chlorotoluene	**966.5**	ug/kg wet	25.0	1000		97% *(70-130)*		02/13/24 :02/13/24	
4-Chlorotoluene	**967.5**	ug/kg wet	25.0	1000		97% *(70-130)*		02/13/24 :02/13/24	
1,2-Dibromo-3-chloropropane	**911.5**	ug/kg wet	25.0	1000		91% *(70-130)*		02/13/24 :02/13/24	
Dibromochloromethane	**977.0**	ug/kg wet	25.0	1000		98% *(70-130)*		02/13/24 :02/13/24	
1,2-Dibromoethane	**976.5**	ug/kg wet	50.0	1000		98% *(70-130)*		02/13/24 :02/13/24	
Dibromomethane	**963.0**	ug/kg wet	25.0	1000		96% *(70-130)*		02/13/24 :02/13/24	
1,2-Dichlorobenzene	**936.5**	ug/kg wet	25.0	1000		94% *(70-130)*		02/13/24 :02/13/24	
1,3-Dichlorobenzene	**987.0**	ug/kg wet	25.0	1000		99% *(70-130)*		02/13/24 :02/13/24	
1,4-Dichlorobenzene	**919.5**	ug/kg wet	25.0	1000		92% *(70-130)*		02/13/24 :02/13/24	
Dichlorodifluoromethane	**1012**	ug/kg wet	25.0	1000		101% *(70-130)*		02/13/24 :02/13/24	
1,1-Dichloroethane	**1071**	ug/kg wet	25.0	1000		107% *(70-130)*		02/13/24 :02/13/24	
1,2-Dichloroethane	**926.5**	ug/kg wet	25.0	1000		93% *(70-130)*		02/13/24 :02/13/24	
1,1-Dichloroethene	**1028**	ug/kg wet	25.0	1000		103% *(70-130)*		02/13/24 :02/13/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
LCS (B24B218-BS1)									
cis-1,2-Dichloroethene	**1026**	ug/kg wet	25.0	1000		103% *(70-130)*		02/13/24 :02/13/24	
trans-1,2-Dichloroethene	**1026**	ug/kg wet	25.0	1000		103% *(70-130)*		02/13/24 :02/13/24	
1,2-Dichloropropane	**1104**	ug/kg wet	25.0	1000		110% *(70-130)*		02/13/24 :02/13/24	
1,3-Dichloropropane	**1030**	ug/kg wet	25.0	1000		103% *(70-130)*		02/13/24 :02/13/24	
2,2-Dichloropropane	**970.5**	ug/kg wet	25.0	1000		97% *(70-130)*		02/13/24 :02/13/24	
1,1-Dichloropropene	**944.5**	ug/kg wet	25.0	1000		94% *(70-130)*		02/13/24 :02/13/24	
cis-1,3-Dichloropropene	**1074**	ug/kg wet	25.0	1000		107% *(70-130)*		02/13/24 :02/13/24	
trans-1,3-Dichloropropene	**1030**	ug/kg wet	25.0	1000		103% *(70-130)*		02/13/24 :02/13/24	
Ethylbenzene	**1006**	ug/kg wet	25.0	1000		101% *(70-130)*		02/13/24 :02/13/24	
Hexachlorobutadiene	**834.5**	ug/kg wet	25.0	1000		83% *(70-130)*		02/13/24 :02/13/24	V3
2-Hexanone	**5280**	ug/kg wet	250	5000		106% *(70-130)*		02/13/24 :02/13/24	
Isopropylbenzene	**1041**	ug/kg wet	25.0	1000		104% *(70-130)*		02/13/24 :02/13/24	
4-Isopropyltoluene	**971.0**	ug/kg wet	25.0	1000		97% *(70-130)*		02/13/24 :02/13/24	
4-Methyl-2-pentanone (MIBK)	**5277**	ug/kg wet	250	5000		106% *(70-130)*		02/13/24 :02/13/24	
Methylene chloride	**1062**	ug/kg wet	50.0	1000		106% *(70-130)*		02/13/24 :02/13/24	
Naphthalene	**901.0**	ug/kg wet	25.0	1000		90% *(70-130)*		02/13/24 :02/13/24	
n-Propylbenzene	**1028**	ug/kg wet	25.0	1000		103% *(70-130)*		02/13/24 :02/13/24	
Styrene	**1016**	ug/kg wet	25.0	1000		102% *(70-130)*		02/13/24 :02/13/24	
1,1,1,2-Tetrachloroethane	**968.5**	ug/kg wet	25.0	1000		97% *(70-130)*		02/13/24 :02/13/24	
1,1,2,2-Tetrachloroethane	**923.5**	ug/kg wet	25.0	1000		92% *(70-130)*		02/13/24 :02/13/24	
Tetrachloroethene	**1056**	ug/kg wet	25.0	1000		106% *(70-130)*		02/13/24 :02/13/24	
Toluene	**1014**	ug/kg wet	25.0	1000		101% *(70-130)*		02/13/24 :02/13/24	
1,2,3-Trichlorobenzene	**901.0**	ug/kg wet	25.0	1000		90% *(70-130)*		02/13/24 :02/13/24	
1,2,4-Trichlorobenzene	**925.5**	ug/kg wet	25.0	1000		93% *(70-130)*		02/13/24 :02/13/24	
1,1,1-Trichloroethane	**951.5**	ug/kg wet	25.0	1000		95% *(70-130)*		02/13/24 :02/13/24	
1,1,2-Trichloroethane	**1019**	ug/kg wet	25.0	1000		102% *(70-130)*		02/13/24 :02/13/24	
Trichloroethene	**1082**	ug/kg wet	25.0	1000		108% *(70-130)*		02/13/24 :02/13/24	
Trichlorofluoromethane	**879.5**	ug/kg wet	25.0	1000		88% *(70-130)*		02/13/24 :02/13/24	
1,2,3-Trichloropropane	**909.0**	ug/kg wet	25.0	1000		91% *(70-130)*		02/13/24 :02/13/24	
1,2,4-Trimethylbenzene	**983.5**	ug/kg wet	25.0	1000		98% *(70-130)*		02/13/24 :02/13/24	
1,3,5-Trimethylbenzene	**987.5**	ug/kg wet	25.0	1000		99% *(70-130)*		02/13/24 :02/13/24	
Vinyl acetate	**4944**	ug/kg wet	50.0	4000		124% *(70-130)*		02/13/24 :02/13/24	
Vinyl chloride	**885.0**	ug/kg wet	25.0	1000		88% *(70-130)*		02/13/24 :02/13/24	
m,p-Xylene	**2022**	ug/kg wet	50.0	2000		101% *(70-130)*		02/13/24 :02/13/24	
o-Xylene	**987.0**	ug/kg wet	25.0	1000		99% *(70-130)*		02/13/24 :02/13/24	
Surrogate									
Dibromofluoromethane	*45.9*	ug/L		*50.0*		92% *(80-120)*		02/13/24 :02/13/24	
Toluene-d8	*52.6*	ug/L		*50.0*		105% *(80-120)*		02/13/24 :02/13/24	
4-Bromofluorobenzene	*49.7*	ug/L		*50.0*		99% *(80-120)*		02/13/24 :02/13/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
Duplicate (B24B218-DUP1)			**Source: W24B119-01**						
Acetone	ND	ug/kg dry	1670		ND		(20)	02/13/24 :02/13/24	
Benzene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Bromobenzene	ND	ug/kg dry	83.6		ND		(20)	02/13/24 :02/13/24	
Bromochloromethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Bromodichloromethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Bromoform	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Bromomethane	ND	ug/kg dry	83.6		ND		(20)	02/13/24 :02/13/24	V3
2-Butanone	ND	ug/kg dry	836		ND		(20)	02/13/24 :02/13/24	
n-Butylbenzene	**4776**	ug/kg dry	41.8		5845		20 (20)	02/13/24 :02/13/24	M1
sec-Butylbenzene	**6250**	ug/kg dry	41.8		8092		26 (20)	02/13/24 :02/13/24	M1
tert-Butylbenzene	**357.7**	ug/kg dry	41.8		464.9		26 (20)	02/13/24 :02/13/24	M1
Carbon disulfide	ND	ug/kg dry	167		ND		(20)	02/13/24 :02/13/24	
Carbon tetrachloride	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Chlorobenzene	ND	ug/kg dry	334		ND		(20)	02/13/24 :02/13/24	
Chloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	L1
Chloroform	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Chloromethane	ND	ug/kg dry	83.6		ND		(20)	02/13/24 :02/13/24	
2-Chlorotoluene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
4-Chlorotoluene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2-Dibromo-3-chloropropane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Dibromochloromethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2-Dibromoethane	ND	ug/kg dry	83.6		ND		(20)	02/13/24 :02/13/24	
Dibromomethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2-Dichlorobenzene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,3-Dichlorobenzene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,4-Dichlorobenzene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Dichlorodifluoromethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1-Dichloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2-Dichloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1-Dichloroethene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
cis-1,2-Dichloroethene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
trans-1,2-Dichloroethene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2-Dichloropropane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,3-Dichloropropane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
2,2-Dichloropropane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1-Dichloropropene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
cis-1,3-Dichloropropene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
trans-1,3-Dichloropropene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Ethylbenzene	**201.4**	ug/kg dry	41.8		156.1		25 (20)	02/13/24 :02/13/24	M1

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
Duplicate (B24B218-DUP1)			**Source: W24B119-01**						
Hexachlorobutadiene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	V3
2-Hexanone	ND	ug/kg dry	418		ND		(20)	02/13/24 :02/13/24	
Isopropylbenzene	**3706**	ug/kg dry	41.8		4706		24 (20)	02/13/24 :02/13/24	M1
4-Isopropyltoluene	**1364**	ug/kg dry	41.8		648.5		71 (20)	02/13/24 :02/13/24	M1
4-Methyl-2-pentanone (MIBK)	ND	ug/kg dry	418		ND		(20)	02/13/24 :02/13/24	
Methylene chloride	ND	ug/kg dry	83.6		ND		(20)	02/13/24 :02/13/24	
Naphthalene	**597.6**	ug/kg dry	41.8		356.4		51 (20)	02/13/24 :02/13/24	M1
n-Propylbenzene	**7529**	ug/kg dry	41.8		8113		7 (20)	02/13/24 :02/13/24	
Styrene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1,1,2-Tetrachloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1,2,2-Tetrachloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Tetrachloroethene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Toluene	**70.21**	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2,3-Trichlorobenzene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2,4-Trichlorobenzene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1,1-Trichloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,1,2-Trichloroethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Trichloroethene	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Trichlorofluoromethane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2,3-Trichloropropane	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
1,2,4-Trimethylbenzene	**5622**	ug/kg dry	41.8		2563		75 (20)	02/13/24 :02/13/24	M1
1,3,5-Trimethylbenzene	**56.00**	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
Vinyl acetate	ND	ug/kg dry	83.6		ND		(20)	02/13/24 :02/13/24	
Vinyl chloride	ND	ug/kg dry	41.8		ND		(20)	02/13/24 :02/13/24	
m,p-Xylene	**297.5**	ug/kg dry	83.6		262.1		13 (20)	02/13/24 :02/13/24	
o-Xylene	**136.2**	ug/kg dry	41.8		150.2		10 (20)	02/13/24 :02/13/24	
Surrogate									
Dibromofluoromethane	*46.6*	ug/L		*50.0*		93% *(80-120)*		02/13/24 :02/13/24	
Toluene-d8	*52.8*	ug/L		*50.0*		106% *(80-120)*		02/13/24 :02/13/24	
4-Bromofluorobenzene	*95.4*	ug/L		*50.0*		191% *(80-120)*		02/13/24 :02/13/24	*M1*
Matrix Spike (B24B218-MS1)			**Source: W24B119-01**						
Acetone	**8861**	ug/kg dry	1670	8350	ND	106% *(70-130)*		02/13/24 :02/13/24	
Benzene	**2012**	ug/kg dry	41.7	1670	ND	120% *(70-130)*		02/13/24 :02/13/24	
Bromobenzene	**935.6**	ug/kg dry	83.5	1670	ND	56% *(70-130)*		02/13/24 :02/13/24	M4
Bromochloromethane	**1892**	ug/kg dry	41.7	1670	ND	113% *(70-130)*		02/13/24 :02/13/24	
Bromodichloromethane	**1721**	ug/kg dry	41.7	1670	ND	103% *(70-130)*		02/13/24 :02/13/24	
Bromoform	**852.9**	ug/kg dry	41.7	1670	ND	51% *(70-130)*		02/13/24 :02/13/24	M4
Bromomethane	**350.5**	ug/kg dry	83.5	1670	ND	21% *(70-130)*		02/13/24 :02/13/24	V3
2-Butanone	**9607**	ug/kg dry	835	8350	ND	115% *(70-130)*		02/13/24 :02/13/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
Matrix Spike (B24B218-MS1)			**Source: W24B119-01**						
n-Butylbenzene	**7639**	ug/kg dry	41.7	1670	5845	107% *(70-130)*		02/13/24 :02/13/24	
sec-Butylbenzene	**8591**	ug/kg dry	41.7	1670	8092	30% *(70-130)*		02/13/24 :02/13/24	M4
tert-Butylbenzene	**1342**	ug/kg dry	41.7	1670	464.9	53% *(70-130)*		02/13/24 :02/13/24	M4
Carbon disulfide	**3820**	ug/kg dry	167	3340	ND	114% *(70-130)*		02/13/24 :02/13/24	
Carbon tetrachloride	**1712**	ug/kg dry	41.7	1670	ND	102% *(70-130)*		02/13/24 :02/13/24	
Chlorobenzene	**1220**	ug/kg dry	41.7	1670	325.5	54% *(70-130)*		02/13/24 :02/13/24	M4
Chloroethane	**399.8**	ug/kg dry	41.7	1670	ND	24% *(70-130)*		02/13/24 :02/13/24	L1
Chloroform	**1798**	ug/kg dry	41.7	1670	ND	108% *(70-130)*		02/13/24 :02/13/24	
Chloromethane	**2023**	ug/kg dry	83.5	1670	ND	121% *(70-130)*		02/13/24 :02/13/24	
2-Chlorotoluene	**765.3**	ug/kg dry	41.7	1670	ND	46% *(70-130)*		02/13/24 :02/13/24	M4
4-Chlorotoluene	**948.1**	ug/kg dry	41.7	1670	ND	57% *(70-130)*		02/13/24 :02/13/24	M4
1,2-Dibromo-3-chloropropane	**1817**	ug/kg dry	41.7	1670	ND	109% *(70-130)*		02/13/24 :02/13/24	
Dibromochloromethane	**1625**	ug/kg dry	41.7	1670	ND	97% *(70-130)*		02/13/24 :02/13/24	
1,2-Dibromoethane	**1681**	ug/kg dry	83.5	1670	ND	101% *(70-130)*		02/13/24 :02/13/24	
Dibromomethane	**1794**	ug/kg dry	41.7	1670	ND	107% *(70-130)*		02/13/24 :02/13/24	
1,2-Dichlorobenzene	**1738**	ug/kg dry	41.7	1670	ND	104% *(70-130)*		02/13/24 :02/13/24	
1,3-Dichlorobenzene	**865.4**	ug/kg dry	41.7	1670	ND	52% *(70-130)*		02/13/24 :02/13/24	M4
1,4-Dichlorobenzene	**1664**	ug/kg dry	41.7	1670	ND	100% *(70-130)*		02/13/24 :02/13/24	
Dichlorodifluoromethane	**2030**	ug/kg dry	41.7	1670	ND	122% *(70-130)*		02/13/24 :02/13/24	
1,1-Dichloroethane	**1955**	ug/kg dry	41.7	1670	ND	117% *(70-130)*		02/13/24 :02/13/24	
1,2-Dichloroethane	**1639**	ug/kg dry	41.7	1670	ND	98% *(70-130)*		02/13/24 :02/13/24	
1,1-Dichloroethene	**1993**	ug/kg dry	41.7	1670	ND	119% *(70-130)*		02/13/24 :02/13/24	
cis-1,2-Dichloroethene	**1901**	ug/kg dry	41.7	1670	ND	114% *(70-130)*		02/13/24 :02/13/24	
trans-1,2-Dichloroethene	**1934**	ug/kg dry	41.7	1670	ND	116% *(70-130)*		02/13/24 :02/13/24	
1,2-Dichloropropane	**1955**	ug/kg dry	41.7	1670	ND	117% *(70-130)*		02/13/24 :02/13/24	
1,3-Dichloropropane	**1773**	ug/kg dry	41.7	1670	ND	106% *(70-130)*		02/13/24 :02/13/24	
2,2-Dichloropropane	**1803**	ug/kg dry	41.7	1670	ND	108% *(70-130)*		02/13/24 :02/13/24	
1,1-Dichloropropene	**2258**	ug/kg dry	41.7	1670	ND	135% *(70-130)*		02/13/24 :02/13/24	M11
cis-1,3-Dichloropropene	**1865**	ug/kg dry	41.7	1670	ND	112% *(70-130)*		02/13/24 :02/13/24	
trans-1,3-Dichloropropene	**1768**	ug/kg dry	41.7	1670	ND	106% *(70-130)*		02/13/24 :02/13/24	
Ethylbenzene	**1095**	ug/kg dry	41.7	1670	156.1	56% *(70-130)*		02/13/24 :02/13/24	M4
Hexachlorobutadiene	**1446**	ug/kg dry	41.7	1670	ND	87% *(70-130)*		02/13/24 :02/13/24	V3
2-Hexanone	**9329**	ug/kg dry	417	8350	ND	112% *(70-130)*		02/13/24 :02/13/24	
Isopropylbenzene	**5678**	ug/kg dry	41.7	1670	4706	58% *(70-130)*		02/13/24 :02/13/24	M4
4-Isopropyltoluene	**1495**	ug/kg dry	41.7	1670	648.5	51% *(70-130)*		02/13/24 :02/13/24	M4
4-Methyl-2-pentanone (MIBK)	**8449**	ug/kg dry	417	8350	ND	101% *(70-130)*		02/13/24 :02/13/24	
Methylene chloride	**1928**	ug/kg dry	83.5	1670	ND	115% *(70-130)*		02/13/24 :02/13/24	
Naphthalene	**2059**	ug/kg dry	41.7	1670	356.4	102% *(70-130)*		02/13/24 :02/13/24	
n-Propylbenzene	**8236**	ug/kg dry	41.7	1670	8113	7% *(70-130)*		02/13/24 :02/13/24	M4

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Volatile Organics - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Volatile Organic Compounds by GCMS - Batch B24B218									
Matrix Spike (B24B218-MS1)			**Source: W24B119-01**						
Styrene	**958.9**	ug/kg dry	41.7	1670	ND	57% *(70-130)*		02/13/24 :02/13/24	M4
1,1,1,2-Tetrachloroethane	**881.3**	ug/kg dry	41.7	1670	ND	53% *(70-130)*		02/13/24 :02/13/24	M4
1,1,2,2-Tetrachloroethane	**4076**	ug/kg dry	41.7	1670	ND	244% *(70-130)*		02/13/24 :02/13/24	M11
Tetrachloroethene	**1985**	ug/kg dry	41.7	1670	ND	119% *(70-130)*		02/13/24 :02/13/24	
Toluene	**1869**	ug/kg dry	41.7	1670	ND	112% *(70-130)*		02/13/24 :02/13/24	
1,2,3-Trichlorobenzene	**1694**	ug/kg dry	41.7	1670	ND	101% *(70-130)*		02/13/24 :02/13/24	M11
1,2,4-Trichlorobenzene	**1757**	ug/kg dry	41.7	1670	ND	105% *(70-130)*		02/13/24 :02/13/24	
1,1,1-Trichloroethane	**1846**	ug/kg dry	41.7	1670	ND	111% *(70-130)*		02/13/24 :02/13/24	
1,1,2-Trichloroethane	**1713**	ug/kg dry	41.7	1670	ND	103% *(70-130)*		02/13/24 :02/13/24	
Trichloroethene	**1991**	ug/kg dry	41.7	1670	ND	119% *(70-130)*		02/13/24 :02/13/24	
Trichlorofluoromethane	**1804**	ug/kg dry	41.7	1670	ND	108% *(70-130)*		02/13/24 :02/13/24	
1,2,3-Trichloropropane	**16760**	ug/kg dry	41.7	1670	ND	1000% *(70-130)*		02/13/24 :02/13/24	E
1,2,4-Trimethylbenzene	**3406**	ug/kg dry	41.7	1670	2563	50% *(70-130)*		02/13/24 :02/13/24	M4
1,3,5-Trimethylbenzene	**893.0**	ug/kg dry	41.7	1670	ND	53% *(70-130)*		02/13/24 :02/13/24	M4
Vinyl acetate	**8902**	ug/kg dry	83.5	6680	ND	133% *(70-130)*		02/13/24 :02/13/24	M11
Vinyl chloride	**1930**	ug/kg dry	41.7	1670	ND	116% *(70-130)*		02/13/24 :02/13/24	
m,p-Xylene	**2205**	ug/kg dry	83.5	3340	262.1	58% *(70-130)*		02/13/24 :02/13/24	M4
o-Xylene	**1059**	ug/kg dry	41.7	1670	150.2	54% *(70-130)*		02/13/24 :02/13/24	M4
Surrogate									
Dibromofluoromethane	*47.5*	ug/L		*50.0*		95% *(80-120)*		02/13/24 :02/13/24	
Toluene-d8	*54.0*	ug/L		*50.0*		108% *(80-120)*		02/13/24 :02/13/24	
4-Bromofluorobenzene	*128*	ug/L		*50.0*		255% *(80-120)*		02/13/24 :02/13/24	*SU2*

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Semivolatile Organics - SIM - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
Polynuclear Aromatic Hydrocarbons by GCMS-SIM - Batch B24B238									
Blank (B24B238-BLK2)									
Acenaphthene	ND	ug/kg wet	20					02/14/24 :02/14/24	
Acenaphthylene	ND	ug/kg wet	20					02/14/24 :02/14/24	
Anthracene	ND	ug/kg wet	20					02/14/24 :02/14/24	
Benzo(a)anthracene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Benzo(a)pyrene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Benzo(b)fluoranthene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Benzo(g,h,i)perylene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Benzo(k)fluoranthene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Chrysene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Dibenzo(a,h)anthracene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Fluoranthene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Fluorene	ND	ug/kg wet	20					02/14/24 :02/14/24	
Indeno(1,2,3-cd)pyrene	ND	ug/kg wet	10					02/14/24 :02/14/24	
2-Methylnaphthalene	ND	ug/kg wet	40					02/14/24 :02/14/24	
Naphthalene	ND	ug/kg wet	40					02/14/24 :02/14/24	
Phenanthrene	ND	ug/kg wet	20					02/14/24 :02/14/24	
Pyrene	ND	ug/kg wet	10					02/14/24 :02/14/24	
Surrogate									
2-Methylnaphthalene-d10	*98*	ug/kg wet		*100*		98% *(31-129)*		02/14/24 :02/14/24	
Fluoranthene-d10	*100*	ug/kg wet		*100*		100% *(63-132)*		02/14/24 :02/14/24	
LCS (B24B238-BS2)									
Acenaphthene	**72.4**	ug/kg wet	20	80.0		90% *(49-122)*		02/14/24 :02/14/24	
Acenaphthylene	**72.8**	ug/kg wet	20	80.0		91% *(51-123)*		02/14/24 :02/14/24	
Anthracene	**71.6**	ug/kg wet	20	80.0		90% *(62-115)*		02/14/24 :02/14/24	
Benzo(a)anthracene	**72.0**	ug/kg wet	10	80.0		90% *(63-112)*		02/14/24 :02/14/24	
Benzo(a)pyrene	**71.2**	ug/kg wet	10	80.0		89% *(62-117)*		02/14/24 :02/14/24	
Benzo(b)fluoranthene	**71.2**	ug/kg wet	10	80.0		89% *(53-117)*		02/14/24 :02/14/24	
Benzo(g,h,i)perylene	**67.2**	ug/kg wet	10	80.0		84% *(42-128)*		02/14/24 :02/14/24	
Benzo(k)fluoranthene	**68.8**	ug/kg wet	10	80.0		86% *(53-124)*		02/14/24 :02/14/24	
Chrysene	**72.0**	ug/kg wet	10	80.0		90% *(63-119)*		02/14/24 :02/14/24	
Dibenzo(a,h)anthracene	**72.8**	ug/kg wet	10	80.0		91% *(44-129)*		02/14/24 :02/14/24	
Fluoranthene	**73.6**	ug/kg wet	10	80.0		92% *(63-115)*		02/14/24 :02/14/24	
Fluorene	**64.0**	ug/kg wet	20	80.0		80% *(58-113)*		02/14/24 :02/14/24	
Indeno(1,2,3-cd)pyrene	**68.0**	ug/kg wet	10	80.0		85% *(46-127)*		02/14/24 :02/14/24	
2-Methylnaphthalene	**79.6**	ug/kg wet	40	80.0		100% *(32-145)*		02/14/24 :02/14/24	V1
Naphthalene	**72.8**	ug/kg wet	40	80.0		91% *(37-118)*		02/14/24 :02/14/24	
Phenanthrene	**72.4**	ug/kg wet	20	80.0		90% *(49-119)*		02/14/24 :02/14/24	
Pyrene	**73.2**	ug/kg wet	10	80.0		92% *(63-117)*		02/14/24 :02/14/24	
Surrogate									

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Semivolatile Organics - SIM - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec (Limits)	RPD (Limit)	Prepared: Analyzed	Qualifier
Polynuclear Aromatic Hydrocarbons by GCMS-SIM - Batch B24B238									
LCS (B24B238-BS2)									
Surrogate									
2-Methylnaphthalene-d10	*100*	ug/kg wet		*100*		100% *(31-129)*		02/14/24 :02/14/24	
Fluoranthene-d10	*98*	ug/kg wet		*100*		98% *(63-132)*		02/14/24 :02/14/24	
Duplicate (B24B238-DUP1)			**Source: W24B119-01**						
Acenaphthene	ND	ug/kg dry	50		ND		(30)	02/14/24 :02/14/24	
Acenaphthylene	ND	ug/kg dry	50		ND		(30)	02/14/24 :02/14/24	
Anthracene	ND	ug/kg dry	50		ND		(30)	02/14/24 :02/14/24	
Benzo(a)anthracene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Benzo(a)pyrene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Benzo(b)fluoranthene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Benzo(g,h,i)perylene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Benzo(k)fluoranthene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Chrysene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Dibenzo(a,h)anthracene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Fluoranthene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Fluorene	ND	ug/kg dry	50		ND		(30)	02/14/24 :02/14/24	
Indeno(1,2,3-cd)pyrene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
2-Methylnaphthalene	ND	ug/kg dry	100		164		(30)	02/14/24 :02/14/24	
Naphthalene	ND	ug/kg dry	100		140		(30)	02/14/24 :02/14/24	
Phenanthrene	ND	ug/kg dry	50		ND		(30)	02/14/24 :02/14/24	
Pyrene	ND	ug/kg dry	25		ND		(30)	02/14/24 :02/14/24	
Surrogate									
2-Methylnaphthalene-d10	*110*	ug/kg dry		*126*		90% *(31-129)*		02/14/24 :02/14/24	
Fluoranthene-d10	*130*	ug/kg dry		*126*		101% *(63-132)*		02/14/24 :02/14/24	
Matrix Spike (B24B238-MS1)			**Source: W24B119-01**						
Acenaphthene	**242**	ug/kg dry	54	271	ND	90% *(49-122)*		02/14/24 :02/14/24	
Acenaphthylene	**253**	ug/kg dry	54	271	ND	94% *(51-123)*		02/14/24 :02/14/24	
Anthracene	**239**	ug/kg dry	54	271	ND	88% *(62-115)*		02/14/24 :02/14/24	
Benzo(a)anthracene	**241**	ug/kg dry	27	271	ND	89% *(63-112)*		02/14/24 :02/14/24	
Benzo(a)pyrene	**232**	ug/kg dry	27	271	ND	86% *(62-117)*		02/14/24 :02/14/24	
Benzo(b)fluoranthene	**234**	ug/kg dry	27	271	ND	86% *(53-117)*		02/14/24 :02/14/24	
Benzo(g,h,i)perylene	**220**	ug/kg dry	27	271	ND	81% *(42-128)*		02/14/24 :02/14/24	
Benzo(k)fluoranthene	**220**	ug/kg dry	27	271	ND	81% *(53-124)*		02/14/24 :02/14/24	
Chrysene	**240**	ug/kg dry	27	271	ND	89% *(63-119)*		02/14/24 :02/14/24	
Dibenzo(a,h)anthracene	**237**	ug/kg dry	27	271	ND	88% *(44-129)*		02/14/24 :02/14/24	
Fluoranthene	**248**	ug/kg dry	27	271	ND	92% *(63-115)*		02/14/24 :02/14/24	
Fluorene	**223**	ug/kg dry	54	271	ND	82% *(58-113)*		02/14/24 :02/14/24	
Indeno(1,2,3-cd)pyrene	**235**	ug/kg dry	27	271	ND	87% *(46-127)*		02/14/24 :02/14/24	
2-Methylnaphthalene	**383**	ug/kg dry	110	271	164	81% *(32-145)*		02/14/24 :02/14/24	V1

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Semivolatile Organics - SIM - QC

Analyte	Result	Units	MRL	Spike Level	Source Result	%Rec *(Limits)*	RPD *(Limit)*	Prepared: Analyzed	Qualifier
Polynuclear Aromatic Hydrocarbons by GCMS-SIM - Batch B24B238									
Matrix Spike (B24B238-MS1)			**Source: W24B119-01**						
Naphthalene	**295**	ug/kg dry	110	271	140	57% *(37-118)*		02/14/24 :02/14/24	
Phenanthrene	**258**	ug/kg dry	54	271	ND	95% *(49-119)*		02/14/24 :02/14/24	
Pyrene	**250**	ug/kg dry	27	271	ND	92% *(63-117)*		02/14/24 :02/14/24	
Surrogate									
2-Methylnaphthalene-d10	*130*	ug/kg dry		*135*		98% *(31-129)*		02/14/24 :02/14/24	
Fluoranthene-d10	*130*	ug/kg dry		*135*		94% *(63-132)*		02/14/24 :02/14/24	

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

City of Portland
Water Pollution Control Laboratory
6543 N. Burlington Ave. / Portland OR 97203 (503) 823-5600 fax (503) 823-5656
ORELAP Certification ID 4023

Project:	**NE Grand S/o NE Schuyler MCC Sewer Rehab**	Client:	Coordinated Site Analysis
Work Order:	**W24B119**	Received:	02/13/24 12:38

Qualifiers

B2	Analyte was detected in the Method Blank, but at a concentration less than one tenth the amount in the sample(s).
D4	Reporting limit is raised for this analyte due to non-target matrix interference.
E	Sample result exceeded the calibration range for the analyte.
F0	Identified product appears to be mineral spirits.
F11	Sample aliquot for volatiles analysis was sub-sampled from a sample container. The sub-sampled aliquot was preserved with methanol within 48 hours of sampling.
F2	Result for heavy oil is primarily due to overlap from diesel-range hydrocarbons.
F3	Result for diesel-range hydrocarbons is primarily due to overlap from gasoline range.
F7	This sample underwent silica gel clean-up.
L1	Recovery for this analyte in the laboratory control sample was outside the acceptance range (low). Sample results may be low estimates.
M1	Matrix duplicate precision measurement indicates non-homogeneous sample matrix. Sample result should be considered an estimate.
M11	Matrix spike recovery for this analyte was high; the analyte was not detected in the sample and results are not affected.
M25	Analyte was detected in the duplicate of this sample.
M4	Based on low matrix spike recovery, the sample result may be a low estimate due to matrix interference.
SU2	Recovery for one or more surrogate compounds was outside the acceptance range (high). Sample results may be high estimates.
V1	Continuing calibration verification was high; sample results for this analyte may be high estimates.
V3	Continuing calibration verification was low; sample results for this analyte may be low estimates.

Definitions

DET	Analyte Detected	ND	Analyte Not Detected at or above the reporting limit
MRL	Method Reporting Limit	MDL	Method Detection Limit
NR	Not Reportable	dry	Sample results reported on a dry weight basis
% Rec.	Percent Recovery	RPD	Relative Percent Difference
*	This analyte is not certified under NELAP		

Reported: 02/16/24 11:04

The results in this report apply only to the samples analyzed. Qualifiers and case narrative comments are essential to interpretation of the analytical results. Report reproductions and/or data summaries without qualifiers and comments are incomplete.

Cara Jung, Laboratory Coordinator QA/QC

Date: 2/13/24

Water Pollution Control Laboratory
6543 N. Burlington Ave.
Portland, Oregon 97203-4552
Sample Custodian: (503) 823-5696
General Lab: (503) 823-5681

Bureau of Environmental Services

Lab Work Order #: W24B119

Collected By: THM, BLN

Contact Info: 3-1144

Client Name: **Coordinated Site Analysis** Project Number (if applicable): E11499.C

Project Name: NE Grand S/o Schuyler Sewer Rehab CSA Contact Name: Bethany Nabhan

Requested Analyses

Follow-up Tests:
- [x] Run TCLP metals if limit exceeded
- [x] Run NWTPH-Dx ~~and NWTPH-Gx~~ if detects on NWTPH-HCID
- [x] Run PAHs if detects on NWTPH-Dx
- [ ] Run VOCs if detects on NWTPH-Gx

Turn-Around-Time Request:
Need by Date: _____
- [ ] Standard (10 business days)
- [ ] Rush (5 business days)
- [x] Other: ASAP Rush

Lab Number	Sample Name	Sample Date	Sample Time	Sample Type	Sample Matrix	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	PCB Aroclors (low-level)	PAHs	Priority Pollutant 13 Metals	RCRA 8 Metals	Total Metals	(As, Cd, Cr, Cu, Pb, Hg, Zn)	Total Metals (Cd, Cr, Pb)	VOCs	TOC	HOLD	# of Containers	Remarks
01	Tank N. 6ft	2/13/24	11:50	G	S	●		●							●	●			3	

Sample Type - G=Grab, C=Composite, FD=Field Duplicate, FDB=Field Decon Blank, EQB=Equipment Blank, TB=Trip Blank
Sample Matrix - DI = DI Water, G = Gas, GW = Groundwater, IWW = Industrial Wastewater, MWW = Municipal Wastewater, PC = Paint Chips, SED = Sediment, SL = Soil, STW = Stormwater, SFW = Surface water

Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: Bethany Nabhan	Signature:	Signature:	Signature:
Printed Name: Bethany Nabhan	Printed Name: Matt Clark	Printed Name:	Printed Name:
Date: 2/13/24	Date: 2/13/24	Date:	Date:
Time: 12:38	Time: 1238	Time:	Time:

CSA Standard WPCL COC

WPCL Cooler Receipt Form

Work Order Number: W24B119 **Cooler Receipt Form Filled Out By:** MC

Project: NE Grand S/o Schuyler Sewer Rehab

Received on ice: (YES) **NO** (circle one) *[If directly from field, indicate here:____]*

Sample(s) Received From: CBWTP fridge____ Client ✓ Courier____ SR fridge ____

Temperature (°C): 12

	Yes	No	N/A
Is the COC present and signed?	✓		
Are sample bottles intact?	✓		
Do the COC and sample labels match?	✓		
Are the appropriate containers used?	✓		
Are samples appropriately preserved?			✓
Are VOA vials completely filled (zero Headspace)?			✓
Are alkalinity bottles completely filled (zero Headspace)? Note if filled in lab.			✓
Are samples received within holding times (except for pH and residual chlorine)?	✓		

Pres. #	Preservative	LIMS ID	Standard Preservation Amounts
1	**HNO_3 (1:1) to pH <2**		0.5mL/250mL; 1.0mL/500mL; 4-5 drops/50mL centrifuge tube
2	**H_2SO_4 (18N) to pH <2**		0.4mL/250mL; 0.8mL/500mL ; 1.6mL/1000mL
3	**HCl (1:1) to pH <2**		2.0mL/500mL; 4.0mL/1000mL
4	**HCl (1:1) to pH 2-3**		For TOC: 2-5 drops/250mL
5	**NaOH to pH >12**		4-10 pellets/500mL; 4 mL 10N/1000mL

Date	Time	Analyst	Sample LIMS ID	Bottle ID	Pres. #	Comments

Comments:_____