CITY OF TACOMA

Public Works Engineering Division

ADDENDUM NO. 2 **DATE 12/22/2023**

REVISIONS TO:
Request for Bids Specification No. PW23-0264F
S 21st St. & S C St. Signal Project

NOTICE TO ALL BIDDERS:
This addendum is issued to clarify, revise, add to or delete from, the original specification documents for the above project. This addendum, as integrated with the original specification documents, shall form the specification documents. The noted revisions shall take precedence over previously issued specification documents and shall become part of this contract.

REVISIONS TO THE SUBMITTAL DEADLINE:

The submittal deadline is changed to 11:00 a.m., Pacific Time, Tuesday, January 9, 2024.

REVISIONS TO THE PROPOSAL PAGES:

Remove the Bid Proposal in its entirety and replace with Bid Proposal labeled Addendum #2.

Remove the Table of Contents and Replace with Table of Contents labeled Addendum #2

REVISIONS TO THE SPECIAL PROVISIONS:

Remove Section 1-06 dated *(June 6, 2023 WSDOT GSP Option 2(A)) and replace with* Section 1-06 dated *(December 20, 2023 WSDOT GSP Option 2(A))*

Add Section 8-01.3(1) C Water Management

Add Section 2-17 Control and Management of Contaminated Materials.

Add Appendix B – GeoEngineers Environmental Services

REVISIONS TO THE PLANS:

None

NOTE: Acknowledge receipt of this addendum by initialing the corresponding space as indicated on the signature page. Vendors who have already submitted their bid/proposal may contact the Purchasing Division at 253-502-8468 and request return of their bid/proposal for acknowledgment and re-submittal. Or, a letter acknowledging receipt of this addendum may be submitted in an envelope marked Request for Bids Specification No. PW23-0264F Addendum

No. 2. The City reserves the right to reject any and all bids, including, in certain circumstances, for failure to appropriately acknowledge this addendum.

cc: Jon Kulju, Public Works Engineering

Addendum #2

B I D P R O P O S A L

SPECIFICATION NO. PW23-0264F
S 21st St & S C Street. Signal

The undersigned hereby certifies that he/she has examined the location and construction details of work as outlined on the Plans and Specifications for Project No. PWK-G0045 and has read and thoroughly understands the Plans and Specifications and contract governing the work embraced in this improvement and the method by which payment will be made for said work, and hereby proposes to undertake and complete the work embraced in this improvement in accordance with said Plans, Specifications and contract and at the following schedule of rates and prices:

NOTE: 1. Unit prices of all items, all extensions and total amount of bid should be shown. Show unit prices in figures only.

2. The notations below the item numbers refer to the specification section where information may be found regarding each contract item. These notations are intended only as a guide and are not warranted to refer to all specification sections where information may be found.

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-1	1-05	Roadway Surveying	Lump Sum	1	Lump Sum	$_____
R-2	1-05	Record Drawings	Lump Sum	1	$5,000 Min. Bid Lump Sum	$_____
R-3	1-07	SPCC Plan	Lump Sum	1	Lump Sum	$_____
R-4	1-09	Mobilization	Lump Sum	1	Lump Sum	$_____
R-5	1-10	Pedestrian Traffic Control	Lump Sum	1	Lump Sum	$_____
R-6	1-10	Project Temporary Traffic Control	Lump Sum	1	Lump Sum	$_____
R-7	2-01	Clearing and Grubbing	Lump Sum	1	Lump Sum	$_____
R-8	2-03	Roadway Excavation, Incl. Haul	Cu. Yd.	150	$_____	$_____
R-9	2-03	Gravel Borrow Incl. Haul	Ton.	20	$_____	$_____

Contractor's Name: _____
Specification Number: PW23-0264F
S 21st Street & S C Street Signal

Addendum #2

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-10	2-06	Subgrade Maintenance and Protection Plan	Lump Sum	1	Lump Sum	$_____
R-11	2-14	Remove Existing Pavement, Type I, Class A8	Sq. Yd.	242	$_____	$_____
R-12	2-14	Remove Existing Pavement, Type III, Class A8	Sq. Yd.	78	$_____	$_____
R-13	2-14	Remove Existing Pavement, Type III, Class A2	Sq. Yd.	66	$_____	$_____
R-14	2-14	Remove Existing Pavement, Type I, Class C6	Sq. Yd.	220	$_____	$_____
R-15	2-15	Remove Curb and Gutter	Lin. Ft.	182	$_____	$_____
R-16	2-17	Site Health and Safety Plan	Lump Sum	1	Lump Sum	$_____
R-17	2-17	Site Health and Safety Officer	Lump Sum	1	Lump Sum	$_____
R-18	2-17	Soil Management Plan	Lump Sum	1	Lump Sum	$_____
R-19	4-04	Crushed Surfacing Top Course	Ton	30	$_____	$_____
R-20	4-04	Crushed Surfacing Base Course	Ton	81	$_____	$_____
R-21	5-04	Planing Bituminous Pavement	Sq. Yd.	615	$_____	$_____
R-22	5-04	HMA CL 1/2" PG 58H-22 for Pavement Patch	Ton	32	$_____	$_____
R-23	5-04	HMA CL ½" PG58H-22	Ton	135	$_____	$_____
R-24	7-05	Adjust Existing Catch Basin, Furnish New Frame and Grate	Each	3	$_____	$_____
R-25	7-05	Catch Basin Type 1, Frame and Grate	Each	1	$_____	$_____
R-26	7-05	Adjust Existing Manhole Furnish New Frame and Cover	Each	4	$_____	$_____

Contractor's Name: _____

Addendum #2

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-27	8-01	Inlet Protection	Each	3	$_____	$_____
R-28	8-01	Erosion/Water Pollution Control	Lump Sum	1	Lump Sum	$_____
R-29	8-01	Stormwater Pollution Prevention Plan (SWPPP)	Lump Sum	1	Lump Sum	$_____
R-30	8-02	Seeding and Fertilizing by Hand	Sq. Yd.	55	$_____	$_____
R-31	8-02	Bark or Wood Chip Mulch	Sq. Yd.	35	$_____	$_____
R-32	8-02	Plant Selection, Chamacyparis Obtusa “Gracilis”	Each	1	$_____	$_____
R-33	8-02	Plant Selection, Epimedium X Perralchicum “Frohnleiten”	Each	20	$_____	$_____
R-34	8-02	Plant Selection, Cornus Stolonifera “Kelseyi”	Each	5	$_____	$_____
R-35	8-02	Topsoil Type B	Cu. Yd.	20	$_____	$_____
R-36	8-04	Cement Conc. Traffic Curb and Gutter	Lin. Ft.	210	$_____	$_____
R-37	8-06	Cement Conc. Driveway Entrance Type I	Sq. Yd.	50	$_____	$_____
R-38	8-09	Raised Pavement Marker Type 2	Hun.	0.6	$_____	$_____
R-39	8-13	Poured Monument	Each	1	$_____	$_____
R-40	8-14	Cement Conc. Sidewalk	Sq. Yd.	231	$_____	$_____
R-41	8-14	Cement Conc. Curb Ramp Type ___	Each	7	$_____	$_____
R-42	8-20	Traffic Signal System, Complete “S 21st Street & S C Street”	Lump Sum	1	Lump Sum	$_____
R-43	8-20	ITS System, Complete “Jefferson Ave to S C Street”	Lump Sum	1	Lump Sum	$_____

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-44	8-21	Permanent Signing	Lump Sum	1	Lump Sum	$_____
R-45	8-22	Removing Paint Line	Lin. Ft.	993	$_____	$_____
R-46	8-22	Removing Painted Traffic Marking	Each	7	$_____	$_____
R-47	8-22	Plastic Traffic Arrow	Each	3	$_____	$_____
R-48	8-22	Plastic Wide Line	Lin. Ft.	70	$_____	$_____
R-49	8-22	Plastic Traffic Letter	Each	4	$_____	$_____
R-50	8-22	Plastic Stop Line	Lin. Ft.	80	$_____	$_____
R-51	8-22	Plastic Crosshatch Marking	Lin. Ft.	160	$_____	$_____
R-52	8-22	Paint Line	Lin. Ft.	600	$_____	$_____
R-53	8-22	Plastic Line	Lin. Ft.	600	$_____	$_____
R-54	8-22	Plastic Crosswalk Line	Lin. Ft.	560	$_____	$_____

TOTAL BASE BID FOR ITEMS R-1 THRU R-54 $_____

Proposal for Incorporating Recycled Materials into the Project

In compliance with a new law that went into effect January 1, 2016 (SHB1695), the Bidder shall propose below, the total percent of construction aggregate and concrete materials to be incorporated into the Project that are recycled materials. Calculated percentages must be within the amounts allowed in Section 9-03.21(1)E, Table on Maximum Allowable Percent (By Weight) of Recycled Material, of the Standard Specifications.

Proposed total percentage: _____ percent.

Note: Use of recycled materials is highly encouraged within the limits shown above, but does not constitute a Bidder Preference, and will not affect the determination of award, unless two or more lowest responsive Bid totals are exactly equal, in which case proposed recycling percentages will be used as a tie-breaker, per the APWA GSP in Section 1-03.1 of the Special Provisions.

Regardless, the Bidder's stated proposed percentages will become a goal the Contractor should do its best to accomplish. Bidders will be required to report on recycled materials

actually incorporated into the Project, in accordance with the APWA GSP in Section 1-06.6 of the Special Provisions.

Bidder: _____

Signature of Authorized Official: _____

Date: _____

Addendum #2

SPECIFICATION NO. PW23-0264F

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Addendum #2

1-06 CONTROL OF MATERIAL
(Section 1-06 is supplemented with the following:

Build America/Buy America

(December 20, 2023 WSDOT GSP Option 2(A))

General Requirements
In accordance with Buy America Preferences for Infrastructure Projects requirements contained in 2 CFR 184 and Division G, Title IX - Build America, Buy America Act (BABA), of Public Law 117-58 (Infrastructure Investment and Jobs Act), the following materials must be American-made:

1. All steel and iron used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

An article, material, or supply will be classified in one of three categories: 1) Steel and Iron, 2) Manufactured Product or 3) Construction Material. Only a single category will apply to an item and be subject to the requirements of the BABA requirements of that category. Some contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a construction material, manufactured product, or steel and iron based on their composition when they arrive at the staging area or work site. When steel or iron are a component of a manufactured product or construction material, the steel and iron components will be subject to “Steel and Iron Requirements” of this Specification.

Definitions
1. Construction Material: Defined as any article, material, or supply brought to the construction site for incorporation into the final product. Construction materials include an article, material, or supply that is or consists primarily of:

    a. Non-ferrous metals including all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly;

b. Plastic and polymer-based products including all manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form);
c. Glass including all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting);
d. Fiber optic cable (includes drop cable) including all manufacturing processes, from initial ribboning (if applicable), through buffering, fiber stranding and jacketing, (fiber optic cable also includes the standards for glass and optical fiber);
e. e. Optical fiber including all manufacturing processes, from the initial preform fabrication stage, though the completion of the draw;
f. f. Lumber including all manufacturing processes, from initial debarking through treatment and planing;
g. g. Drywall including all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels; or
h. h. Engineered wood including all manufacturing processes from the initial combination of constituent materials until the wood product is in its final form.

Construction Materials do not include items of primarily iron or steel; manufactured products; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. If a Construction Material is not manufactured in the United States it shall be considered a Foreign Construction Material.

2. Manufactured Product: A Manufactured product includes any item produced as a result of the manufacturing process. Items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.
3. Manufactured in the United States: A construction material will be considered as manufactured in the United States if all manufacturing processes have occurred in the United States.
4. Structural Steel: Defined as all structural steel products included in the project.
5. United States: To further define the coverage, a domestic product is a manufactured steel construction material that was produced in one of the 50 states, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

Addendum #2

Steel and Iron Requirements

Major quantities of steel and iron construction materials that are permanently incorporated into the project shall consist of American-made materials only. BABA requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total contract cost or $2,500.00, whichever is greater.

American-made material is defined as material having all manufacturing processes occurring domestically.

If domestically produced steel billets or iron ingots are exported outside of the area of coverage, as defined above, for any manufacturing process then the resulting product does not conform to the BABA requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the BABA requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.

Manufacturing begins with the initial melting and mixing and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.
Due to a nationwide waiver, BABA requirements do not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron ore processed, pelletized, and reduced iron ore.

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:
    a. Open hearth furnace.
    b. Basic oxygen.
    c. Electric furnace.
    d. Direct reduction.
2. Rolling, heat treating, and any other similar processing.

3. Fabrication of the products:

    a. Spinning wire into cable or strand.

    b. Corrugating and rolling into culverts.

    c. Shop fabrication.

A certification of materials origin will be required for all items comprised of, or containing, steel or iron construction materials prior to such items being incorporated into the permanent work. The Contractor will not receive payment until the certification is received by the Engineer. The certification shall be on WSDOT Form 350-109 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-109.

Manufactured Products

Due to a nationwide waiver, BABA requirements do not apply to manufactured products. Manufactured products that contain steel and iron, regardless of a nationwide waiver, will follow “Steel and Iron Requirements” of this Specification.

Construction Material Requirements

A Contractor provided certification of materials origin will be required before each progress estimate or payment. The Contractor will not receive payment until the certification is received by the Engineer. The Contractor shall certify that all construction materials installed during the current progress estimate period meets the Build America, Buy America Act. The certification shall be on WSDOT Form 350-111 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-111.

Waiver for De Minimis Costs

Minor amounts of Foreign Construction Materials may be utilized in this project, provided that the total cost of the Foreign Construction Materials does not exceed $1,000,000 and does not exceed 5 percent of the total applicable material costs calculated as follows:

$$\frac{\textit{Total cost of Foreign Construction Material}}{\textit{Total applicable material Cost}} < 0.05$$

The total applicable material costs shall be the sum of the costs all Construction Materials, all Steel and Iron, and all Manufactured Products. Total applicable material costs does not include the cost of cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

Addendum #2

Steel and iron materials shall follow the “Steel and Iron Requirements” of this Specification.

2-17 CONTROL AND MANAGEMENT OF CONTAMINATED MATERIALS (******)

2-17.1 Description

(******)

Refer to Appendix B for the Environmental Services dated June 24, 2022 prepared by GeoEngineers for this project.

This section specifies excavated material handling, transport, and disposal requirements.

2-17.1(1) General

Impacted soils with concentrations of barium, chromium, lead, benzene, ethylbenzene, toluene, xylenes, acetone, 1,2,4-trimethylbenzene, total carcinogenic polycyclic aromatic hydrocarbons, various polycyclic aromatic hydrocarbons, and lube oil-range hydrocarbons present in the soil have been encountered on the project site. The Contractor shall operate within and meet all applicable laws and regulations associated with working with regulated materials encountered during excavation activities. The Contractor is notified of the existence of cleanup standards for site soils and groundwater developed according to the MTCA.

The Contractor is advised to review the applicable Washington Administrative Codes (WAC), Washington Department of Ecology (DOE), Washington State Department of Health (DOH), MTCA and Asarco Reports.

Websites for further information:

WAC: http://apps.leg.wa.gov/wac/ (Title 173-303 & 173-340)

DOH: http://www.doh.wa.gov/

DOE: http://www.ecy.wa.gov/

MTCA: http://www.ecy.wa.gov/pubs/9406.pdf

Public Health Seattle and King County:
http://www.kingcounty.gov/healthservices/health/ehs/toxic/ArsenicLead.aspx

Pierce County Health Department:
http://www.tpchd.org/index.php

Environmental Protection Agency, Asarco Smelter Cleanup:
http://www.epa.gov/region10

Agency for Toxics Substances and Disease Registry, Facts on Arsenic:
http://www.atsdr.cdc.gov/tfacts2.html

Centers for Disease Control, Facts on Lead:
http://www.cdc.gov/nceh/lead/publications/1997/factlead.htm

Department of Health, Drinking Water:
http://www.doh.wa.gov/ehp/dw

Addendum #2

2-17.1(2) Site Description

2-17.1(2)A Historical Land Use

The Tacoma smelter opened in 1890 as a lead smelter. Asarco purchased it in 1905 and converted it to a copper smelting operation in 1912. The smelter operated for nearly 100 years, closing in 1986. The smelter specialized in processing ores with high arsenic concentrations.

The smelter used a 562-foot smokestack during Asarco's operations. The chemicals in the smoke were released through the smokestack and transported by the wind eventually settling to the ground surface over a 1,000 square mile area. Much of the soil in King and Pierce Counties has been contaminated with arsenic and lead. Arsenic is a human carcinogen, and lead can cause development disabilities. The Department of Ecology and state and local health departments are concerned about potential health risks to people exposed to the contamination.

(******)

The project is in the ROW and fill from unknown sources has been placed since development in the 1800s.

2-17.1(2)B Soil Descriptions and Soil Quality

(******)

Subsurface conditions at the site were explored in May 2022 by drilling three air-knifed potholes along the project alignment. Details regarding the subsurface explorations, environmental laboratory testing and summary logs of the explorations are included in Appendix B of these Specifications.

The Contracting Agency tested the soils collected from the soil borings completed within the project area for total petroleum hydrocarbons (gasoline, diesel and oil), total metals arsenic, barium, cadmium chromium lead, mercury, selenium and silver, volatile organic compounds [full list] and polycyclic aromatic hydrocarbons. A summary of the chemical analytical results for the soils is located in Appendix B of these Specifications.

2-17.1(3) Soil Management

All excavated material is considered impacted and shall be disposed at the LRI Landfill. The Contractor shall load all contaminated material directly into trucks and dispose as contaminated material at the LRI Landfill located at 30919 Meridian Street East, Graham, WA. The City has obtained a Waste Disposal Authorization WDA-2725R.

The Contractor shall follow all provisions of the WDA. The City will pay the disposal (tipping) fee directly to LRI for disposal of this material. *The Contractor shall not include the LRI Disposal Fee in their bid items.*

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2-17.1(4) Water Management

Contaminated Water: All water encountered within the project area shall be treated as contaminated, requiring management in accordance with the conditions outlined in Section 8-01.3.

2-17.1(5) Submittals

This paragraph lists submittals required for this project area. Other submittals will be as required.

1. **Health and Safety Plan** – Section 2-17.2(2).
2. **Resume of Site Health and Safety Officer** – Section 2-17.2(3).
3. **Manifest Package and Supporting Analytical Data** – Section 2-17.3(2)D
4. **Contaminated Materials Management Plan** – Section 2-17.2(5)
5. **Contractor and/or Subcontractor Environmental Qualifications**

2-17.2 Health and Safety

The Contractor shall be responsible for the health and safety conditions at the job site related to the regulated substances. This includes the health and safety of workers and public during work and non-working hours. The Contractor shall inform all workers and visitors of the potential for exposure to regulated materials. The Contractor shall follow regulatory procedures to prevent the release of contamination.

Contaminated material excavated during the project is considered solid waste. The Contractor's Health and Safety Plan shall specify training requirements for the site, including 24, 48, or 80 hour training OSHA training as referenced in WAC 296 843 20010, if applicable. The Contractor shall be responsible for all training costs.

2-17.2(1) Health and Safety Laws and Regulations

For all work conducted within the limits of this project site, the Contractor shall ensure compliance with all applicable health and safety provisions for hazardous waste operations, including requirements of the Federal Occupation Safety and Health Act of 1970 (OSHA) and all amendments, including 29 CFR Part 1910, WAC 296-843, as well as any other applicable regulations. Failure to be thoroughly familiar with applicable health and safety provisions shall not relieve the Contractor of the responsibility to fully comply with all laws and regulations.

2-17.2(2) Site Health and Safety Plan

The Site Health and Safety Plan shall be prepared in accordance with WAC 173-340-810. The Contractor shall develop a written Site Health and Safety Plan to be used for the duration of the project. The plan shall incorporate all required city, county, state, and federal health and safety provisions. The plan shall be submitted to the City within ten (10) working days after execution of the contract. The Contractor is advised that the City will review the Site Health and Safety Plan, but the Contractor is solely responsible for ensuring that the Site Health and Safety Plan is implemented in accordance with the regulatory requirements. At least one copy of the plan shall be maintained at the work site. A properly qualified individual shall be assigned to serve as the Site Health and Safety Officer, authorized to supervise and enforce compliance with the plan. The

Health and Safety Officer shall be responsible for monitoring the work area for health hazards including sampling of the air, soil, and water as required to ensure worker safety.

All provisions of the Site Health and Safety Plan shall apply to the Contractor, Subcontractors, and all other visitors to the site. Approved Subcontractors may elect to develop a site-specific plan, but this shall not relieve the Contractor of the requirements and responsibilities described herein. The terms and provisions of a Subcontractor's site-specific plan shall meet or exceed the Contractor's plan and shall be submitted to the City or its agents prior to the Subcontractor commencing work.

The Site Health and Safety Plan shall comply with all applicable regulations and shall include, but not be limited to:

1. A list of chemical hazards and physical hazards, allowable OSHA exposure levels, threshold limit values, and all other regulatory exposure levels.

2. If 24, 48, or 80 hour training is required by the Site Health and Safety Plan, then the Contractor shall provide a list of all persons, by work category/type, who will be trained. Photocopies of the employee's training certificates shall be submitted to the Contracting Agency.

3. Engineering controls, work practices, personnel and equipment decontamination procedures, and types of personal protective equipment to be used.

4. A list of safety and monitoring equipment to be kept at the job site and its storage location. A record of monitoring equipment calibration shall be maintained.

5. A list of required health and safety information to be documented.

6. An emergency evacuation plan for immediate removal to the nearest hospital or doctor's care for any person who may be injured on the job site. It shall include evacuation routes to medical treatment and emergency telephone numbers for hospitals, ambulances, police and fire departments, poison control, and the City of Tacoma.

In the event the Health and Safety Plan is determined by a regulatory agency to be inadequate to protect the employees and the public, then the Plan shall be modified by the Contractor at the Contractor's sole expense.

2-17.2(3) Site Health and Safety Officer

The Contractor shall appoint a Site Health and Safety Officer for the project. The Health and Safety Officer must meet the requirements contained in 29 CFR Part 1910 and Chapter 296-62 WAC and who is qualified by experience and training in hazardous waste operations in accordance with other applicable laws, regulations, and requirements of this Section. The Site Health and Safety Officer shall be qualified and authorized to monitor, supervise, and enforce safety compliance with the Site Health and Safety Plan. A resume of the Site Health and Safety Officer's qualifications shall be submitted to the City for review within five (5) working days of receiving the Notice to

Proceed. The Site Health and Safety Officer shall be on site at all times when work operations involve excavation and trenching or at other times when the potential for encountering hazardous substances exists as identified as contaminated soil in the Plans and Section 2-17.

The Contractor shall be solely responsible for identification and monitoring of air (gases), soil, dust, and groundwater with chemical constituents that could pose health and safety concerns to site personnel. The Contractor shall provide for the protection of safety and health of all workers and other authorized persons, including the City and its agents at the jobsite from exposure to potentially hazardous substances.

The Contractor shall be solely responsible for ensuring that all necessary monitoring equipment, protective clothing, and other supplies and equipment up to the appropriate level of protection as defined by WISHA, OSHA, and other applicable guidelines are available to implement the plan. No work shall take place in areas where hazardous substances may potentially be present unless the Site Health and Safety Officer is present and monitoring site conditions.

The Contractor, through the Site Health and Safety Officer, shall not permit any employee, in the performance of the Contract, to work under conditions which are hazardous to the employee. Should violations of the safety and health requirements be called to the Site Health and Safety Officer's attention by the City, its agent, or any authorized representative of a regulator agency, then the Contractor shall immediately correct the identified conditions.

2-17.2(4) Contractor Safety Equipment

The Contractor shall maintain, at the job site, first-aid and safety equipment applicable to the work as prescribed by the governing safety authorities. All required safety equipment shall be kept in fully operational condition for the duration of the contract.

All personnel shall be trained in the use of the appropriate safety equipment that would be utilized during the course of their work. The Site Health and Safety Officer shall ascertain that the safety equipment is being used when appropriate and/or required.

2-17.2(5) Contaminated Materials Management Plan

The Contractor shall submit a detailed plan for management of all contaminated material including excavated soils, groundwater, and storm/surface water encountered on the project site during construction. The plan shall include excavation, loading, and transporting procedures, stockpiling, erosion control, dust control procedures, and disposal of contaminated soils. The plan for contaminated groundwater and storm/surface water management and disposal shall include capture, diversion, containment, treatment and discharge procedures to be used during construction and site landscaping establishment.

The Contaminated Materials Management Plan shall be submitted prior to the Pre-Construction Meeting.

2-17.3 Construction Requirements

Construction activities at the site will generate excess soils and possible groundwater associated with the installation of underground utilities. The Contractor shall fully

develop and implement a program in accordance with the Health and Safety Plan to ensure worker health and safety and to minimize disruption to construction due to site contamination.

2-17.3(1) Notification

The Contractor shall notify the Contracting Agency, in writing, at least ten (10) working days prior to the date that excavation operations are to begin and identify the limits of that excavation. Excavation and sampling shall not take place without a designated representative from the Contracting Agency on site.

2-17.3(2) Transportation

2-17.3(2)A General

The Contractor shall provide all equipment, personnel, and materials necessary to load and transport waste materials, including contaminated soils and debris, for off-site treatment and/or disposal in accordance with federal, state, and local regulations.

2-17.3(2)B Control of Waste Material

Vehicles used by the Contractor to transport waste materials shall be properly designed, equipped, and maintained to prevent the loss of materials during transport. The following requirements shall be met for all vehicles transporting waste materials from the site:

1. No soil from the site shall adhere to the outside of the surface of the vehicle (including tires and undercarriage).

2. No liquids shall be leaking or dripping from the vehicles.

3. Any and all waste materials shall be covered with tarpaulin or otherwise completely enclosed to prevent loss of materials from the vehicle during transport.

4. If contaminated soil is temporarily stockpiled prior to loading into trucks, the stockpiled material shall be placed on a minimum 10-mil polyethylene liner, surrounded by berms and covered with a minimum 6-mil polyethylene sheeting to prevent water from entering into or discharging from the stockpile.

If leaking or dripping from transport vehicles occurs, the Contracting Agency may direct the Contractor to use liners or other means to prevent dripping and leaking. The Contractor shall implement such measures, as directed by the Contracting Agency, at the Contractor's sole expense.

The Contractor shall minimize the spread of contaminated materials by physically decontaminating all excavation equipment in a designated decontamination area. Physical decontamination techniques shall include brushing and spraying with a pressure washer. All equipment will need to be brushed that is in contact with contaminated material. Brushing shall consist of removal of loose materials with the use of broom and/or brushes. If truck wheels are in contact with any soil from the Project, the wheels shall be pressure washed before leaving the Project area. A pressure washer shall be used to provide application of water of sufficient pressure, residence time, and

agitation to remove soil and contaminated residuals from surfaces. The Contractor shall dispose of decontamination water generated onsite in accordance with all applicable regulations. The Contractor shall perform decontamination using the following methods or as approved by the Engineer.

The Contractor shall be responsible for the onsite/offsite management and disposal of all incidental wastes resulting from handling of contaminated soil and groundwater. Incidental items include, but not limited to, personal protective equipment (PPE), decontamination water, erosion control materials, residual soil samples, and other materials (plastic sheeting, wash basins, scrub brushes, rags, etc.) The Contractor shall collect decontamination liquid, pump to on-site water storage tanks and manage water as described in Special Provisions Section 8-01.3(1)C Water Management.

2-17.3(2)C Street Sweeping

The Contractor shall sweep those streets within the project when truck traffic carries soil from the site into the street. Street sweeping shall be conducted in such a way as to not generate visible dust. Material collected from street sweeping shall be disposed of in a legal manner at an off-site location and be included in the Erosion/Water Control bid item.

2-17.3(2)D Transportation and Shipping Requirements

The Contractor shall be responsible for obtaining permits and authorizations necessary to use the selected haul routes. The Contractor shall use United States DOT regulations, 49 CFR 172.101 to identify proper shipping names for each hazardous material (including Dangerous Waste) to be shipped off site. Proper shipping names shall be submitted to the Contracting Agency in the form of draft shipping documents for review and comment.

The Contractor shall ensure that each shipment of material sent off site is accompanied by the appropriate shipping documents. The Contractor shall prepare a bill of lading for each shipment of regulated material which does not require a hazardous waste manifest. The bill of lading shall satisfy the requirements of United States DOT regulations, 49 CFR 172 Subpart C and any applicable state or local law or regulation, and shall be submitted to the Contracting Agency for review. The Contractor shall be responsible for completing the shipping documents and obtaining the signatures of the Contracting Agency as needed. Contractor shall supply weight tickets for contaminated soil disposed offsite to the Engineer. Contractor shall supply Certificate of Disposal for contained-in determination soil disposed offsite within 14 days of disposal date to the Engineer.

The Contractor shall not transport any contaminated material until the waste disposal authorization is granted. The City shall not be responsible for project costs or delays related to obtaining waste disposal authorizations or any additional testing requirements.

2-17.3(3) Off-site Treatment and Disposal

The Contractor shall provide documentation of legal disposition including trip tickets and Certificates of Disposal.

2-17.4 Measurement

No specific measurement shall apply to the lump sum item of Site Health and Safety Plan, Site Health and Safety Officer, and Soil Management Plan.

2-17.5 Payment

Payment will be made in accordance with Section 1-04.1 for each of the following Bid Items that are included in the Proposal:

“Site Health and Safety Plan”, per lump sum.

“Site Health and Safety Officer”, per lump sum.

“Soil Management Plan”, per lump sum.

Health and safety training, safety equipment and practices, dust control, efficiency losses to other Contract items caused by handling contaminated materials, and other Work required to comply with this specification not specifically identified in a Bid item shall be considered incidental to the work to comply with this Section and all costs therefore shall be included in the Contract prices for the payment items involved and included in the Proposal.

END OF SECTION

Appendix B

Environmental Services

City of Tacoma – South 21st Street
and South C Street Signal Improvements
Tacoma, Washington

for
Fehr & Peers, Inc.

June 24, 2022

GeoEngineers
Earth Science + Technology

Environmental Services

City of Tacoma – South 21st Street
and South C Street Signal Improvements
Tacoma, Washington

for
Fehr & Peers, Inc.

June 24, 2022

GeoEngineers

1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

Environmental Services

City of Tacoma – South 21st Street and South C Street Signal Improvements Tacoma, Washington

File No. 0570-179-00

June 24, 2022

Prepared for:

Fehr & Peers, Inc.
1127 Broadway, Suite 102
Tacoma, Washington 98402

Attention: Christopher Grgich, PE

Prepared by:

GeoEngineers, Inc.
1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

Roger Chang
Environmental Scientist

Terry McPhetridge
Principal

RC:TM:leh

Table of Contents

1.0 INTRODUCTION AND PROJECT UNDERSTANDING

This report presents the results of our environmental services for the South 21st Street and South C Street Signal Improvement Project located in Tacoma, Washington. The project location is shown on the Vicinity Map and Site Plan, Figure 1.

The project goal is to improve pedestrian safety and mobility by constructing a new traffic signal at the intersection of South 21st Street and South C Street. South 21st Street is a four-lane roadway with a center turn lane. South C Street to the north of the intersection is a two-lane roadway which is used for access to the University of Washington Tacoma (UWT) campus. South C Street to the south of the intersection is a two-lane roadway with on-street parking.

Proposed improvements are expected to include new strain pole and mast arm traffic signals, new or improved sidewalks and pedestrian ramps, new pavements within the intersection and utility connections to adjacent intersections for use as part of future projects. We anticipate that the traffic signals will be supported on shallow spread footings or on drilled pier type foundations (depending on space constraints and foundation loads). We also anticipate that relocating existing utilities and/or below grade utility vaults could be necessary as part of the project.

Our scope of work entailed completing a public records request of adjacent properties through the Washington State Department of Ecology (Ecology) and review the information provided by Ecology on these properties to evaluate potential environmental impacts, evaluate soil and groundwater (if encountered) conditions within the project area and to assist with the application for disposal of contaminated materials (if encountered) during construction activities.

2.0 PUBLIC RECORDS LITERATURE REVIEW

2.1. Ecology Public Records Request for Adjacent Properties

A total of four (4) properties were reviewed based on the results of a Washington State Department of Ecology's public records request. The four properties were located adjacent to the north, south, east, and west of the project site limits. Two sites (University of Washington Tacoma campus to the north and Heidelberg Brewery to the south) were listed as cleanup sites with contaminates detected at concentrations greater than the respective Model Toxics Control Act (MTCA) cleanup levels in soil and/or groundwater. These two sites are under active investigation/cleanup programs at the time of writing this report. The two sites located to the east and west of the project boundary were listed but both these sites have been cleaned up based on information provided by Ecology.

Our understanding of the documentation provided from Ecology's public records request showed that cleanup sites listed in adjacent properties should likely not impact soil and groundwater conditions within the 21st and C Street project boundary. Copies of the records obtained from Ecology are provided in Appendix C.

3.0 SITE CONDITIONS

The intersection of South 21st Street and South C Street is located in downtown Tacoma and the surrounding area is developed with mixed use buildings. The grade along South 21st Street slopes downward through the intersection from west to east. South C Street is relatively level within the project area, gently sloping down to the north. The existing intersection consists of asphalt pavement bordered by concrete sidewalks.

3.1. Subsurface Explorations

A total of three pothole locations were completed by the City of Tacoma on May 16 using a water-knife vacuum method. Soil was vacuumed to a depth of approximately 10 feet below ground surface (bgs) at each pothole location. Soil samples were collected at every 2 feet depth interval using a manual hand auger to depths up to 10 feet bgs at each location. The hand auger was decontaminated using an Alconox wash and rinsed with distilled water. Groundwater was not encountered in the pothole locations.

Soil samples were visually classified, and field screened for presence of petroleum hydrocarbons. The soil samples were classified in accordance with the system described in Appendix A. Field screening consisted of water sheen testing, headspace vapor testing and observation for staining and/or odor. Field screening methods are described in more detail in Appendix A.

A composite soil sample was collected from each sample interval and placed into laboratory-supplied jars. The samples were placed in coolers with ice following collection and transported under standard chain-of-custody protocol to the chemical analytical laboratory.

Composite soil samples from the potholes were identified using the following identification system: 21st/C Street-B1-COMP where 21st/C Street is project location, B1 is boring number, and COMP represents the composited soil sample from 0 to approximately 10 feet bgs.

3.2. Soil Conditions

Subsurface soil observed in the potholes generally consist of brown to gray sand/silty sand underlain by brown sand with gravel to the full depth explored.

4.0 CHEMICAL ANALYTICAL RESULTS

A total of three composite soil samples were submitted to Onsite Environmental, Inc. in Redmond Washington. The three composite soil samples were analyzed for Northwest Total Petroleum Hydrocarbons (NWTPH) – Hydrocarbon Identification (HCID) with following NWTPH – Diesel/Oil (Dx), Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 8260C, Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270, and Total Resource Conservation and Recovery Act (RCRA) 8 Metals by EPA Method 6000/7000.

Analytical results were compared to Ecology Model Toxics Control Act (MTCA) Method A Unrestricted Land Use (ULU). Method B ULU criteria were used where Method A soil screening levels have not been established.

Chemical analytical results are discussed below and summarized in Table 1. A copy of the laboratory report is provided in Appendix B.

4.1. Petroleum Hydrocarbons

Diesel- and motor oil-range petroleum hydrocarbons were detected in two composite soil samples analyzed for NWTPH-HCID. These two samples were submitted for follow-up analysis using Ecology-approved method NWTPH-Dx.

Diesel- and motor oil-range petroleum hydrocarbons were either not detected or were detected at concentrations less than the respective MTCA Method A ULU soil screening levels in the two soil composite samples analyzed using Ecology-approved method NWTPH-Dx.

4.2. Metals

Metals were either not detected or were detected at concentrations less than their respective MTCA Method A ULU or Method B ULU criteria in the three composite soil samples.

4.3. Volatile Organic Compounds

VOCs were either not detected or were detected at concentrations less than their respective MTCA Method A ULU criterion in the three composite soil samples.

4.4. Polycyclic Aromatic Hydrocarbons

PAHs were not detected or were detected at concentrations less than their respective MTCA Method A ULU criterion in the three composite soil samples.

5.0 CONCLUSIONS

Analytical results indicate that the contaminants of concern were either not detected or were detected at concentrations less than the respective MTCA soil screening levels at the location of each boring. Soil generated from construction activities can either be reused on site as structural backfill material if applicable or disposed offsite at a subtitle D landfill based on the results of this investigation.

6.0 LIMITATIONS

We have prepared this report for the exclusive use of the Fehr & Peers, Inc. for the South 21st Street and South C Street Signal Improvement Project located in Tacoma, Washington. Fehr & Peers, Inc. may distribute copies of this report to City of Tacoma and City of Tacoma's authorized agents and regulatory agencies as may be required for the Project.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty, express or implied, applies to this report.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix D titled "Report Limitations and Guidelines for Use" for additional information pertaining to use of this report.

TABLES

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Table 1

Summary of Chemical Analytical (TPH, PAHs, VOCs, Metals)[1]

South 21st Street and South C Street
Tacoma, Washington

Sample Type	Soil Composite	Soil Composite	Soil Composite	MTCA Method A ULU Screening Level[11] (mg/kg)
Sample Identification[2]	21st/C Street-B1-COMP	21st/C Street-B2-COMP	21st/C Street-B3-COMP	
Sample Date	**5/16/2022**	**5/16/2022**	**5/16/2022**	
Sample Start Depth (feet bgs)	**0**	**0**	**0**	
Sample End Depth (feet bgs)	**10**	**10**	**10**	
NWTPH-HCID (mg/kg)				
Gasoline-range petroleum hydrocarbons	Not Detected	Not Detected	Not Detected	N/A
Diesel-range petroleum hydrocarbons	Not Detected	Not Detected	Not Detected	N/A
Lube oil-range petroleum hydrocarbons	**Detected**	**Detected**	Not Detected	N/A
NWTPH-Dx[3] (mg/kg)				
Diesel-range petroleum hydrocarbons	27 U	28 U	–	2,000
Lube oil-range petroleum hydrocarbons	**430**	**710**	–	2,000
Metals[4] (mg/kg)				
Arsenic	11 U	11 U	11 U	20
Barium	**95**	**61**	**49**	16,000
Cadmium	0.53 U	0.55 U	0.54 U	2
Chromium	**40**	**31**	**22**	2,000
Lead	**10**	5.5 U	5.4 U	250
Mercury	0.27 U	0.27 U	0.27 U	2
Selenium	11 U	11 U	11 U	400[11]
Silver	1.1 U	1.1 U	1.1 U	400[11]
Volatile Organic Compounds (VOCs)[5] (mg/kg)				
Petroleum-Related Constituents and Other VOCs				
Benzene	0.00098 U	**0.0076**	0.0011 U	0.03
Ethylbenzene	**0.0036**	**0.0059**	0.0011 U	6
Toluene	0.0049 U	0.0054 U	0.0056 U	7
Total Xylenes[6]	**0.0138**	**0.0026**	**0.0048**	9
Acetone[7]	0.0098 U	**0.052**	0.0011 U	72,000[11]
Naphthalene	0.0049 U	0.0049 U	0.0049 U	0.25
1,2,4 - Trimethylbenzene	0.0011 U	0.0011 U	**0.0025**	800
Polycyclic Aromatic Hydrocarbons (PAHs)[8] (mg/kg)				
1-Methylnaphthalene	0.014 U	0.0037 U	0.0072 U	MTCA Method A ULU cleanup level for the sum of all Naphthalenes is 5 mg/kg
2-Methylnaphthalene	0.014 U	0.0037 U	0.0072 U	
Naphthalene	0.014 U	0.0037 U	0.0072 U	
Total Naphthalenes[9]	–	–	–	
Acenaphthene	0.014 U	0.0037 U	0.0072 U	4,800[11]
Acenaphthylene	0.014 U	0.0037 U	0.0072 U	NE
Anthracene	0.014 U	0.0037 U	0.0072 U	24,000
Benzo(a)anthracene	0.014 U	0.0037 U	0.0072 U	NE
Benzo(a)pyrene	0.014 U	0.0037 U	0.0072 U	0.19
Benzo(b)fluoranthene	0.014 U	0.0037 U	0.0072 U	NE
Benzo(g,h,i)perylene	0.014 U	0.0037 U	0.0072 U	NE
Benzo(j,k)fluoranthene	0.014 U	0.0037 U	0.0072 U	NE
Chrysene	0.014 U	0.0037 U	0.0072 U	NE
Dibenzo(a,h)anthracene	0.014 U	0.0037 U	0.0072 U	NE
Fluoranthene	0.014 U	0.0037 U	0.0072 U	3,200[11]
Fluorene	0.014 U	0.0037 U	0.0072 U	3,200[11]
Indeno(1,2,3-c,d)pyrene	0.014 U	0.0037 U	0.0072 U	NE
Phenanthrene	0.014 U	**0.039**	0.0072 U	NE
Pyrene	0.014 U	0.0037 U	0.0072 U	2,400[11]

Notes:

[1] This table contains chemical analytical data that is relevant to the 21st and C Street project

[2] Sample ID = Location area - boring location - composite sample

[3] Diesel- and lube oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx.

[4] Resource Conservation Recovery Act (RCRA) metals analyzed by United States Environmental Protection Agency (EPA) Method 200.8.

[5] Volatile organic compounds (VOCs) analyzed by EPA Method 8260D

[6] Total xylenes consists of m,p- and o- xylenes.

[7] Acetone is a common laboratory contaminant.

[8] Polycyclic aromatic hydrocarbons (PAHs) and carcinogenic PAHs (cPAHs) analyzed by EPA Method 8270D/SIM.

[9] Total naphthalenes consists of the sum of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene.

[11] Model Toxics Control Act (MTCA) Method A cleanup levels shown if established. Method B cleanup level shown if no Method A cleanup level is established. The MTCA Method B cleanup level shown is the lowest for either carcinogen or non-carcinogen, based on direct contact.

"–" = not analyzed

PAHs = polycyclic aromatic hydrocarbons

cPAHs = carcinogenic polycyclic aromatic hydrocarbons

bgs = below ground surface

EPA = United States Environmental Protection Agency

N/A = not applicable

NE = cleanup level not established

CUL = cleanup level

MTCA = Model Toxics Control Act

mg/kg = milligram per kilogram

U = Analyte was not detected at or greater than the listed practical quantitative limit

Bold type indicates that the analyte was detected.

FIGURES

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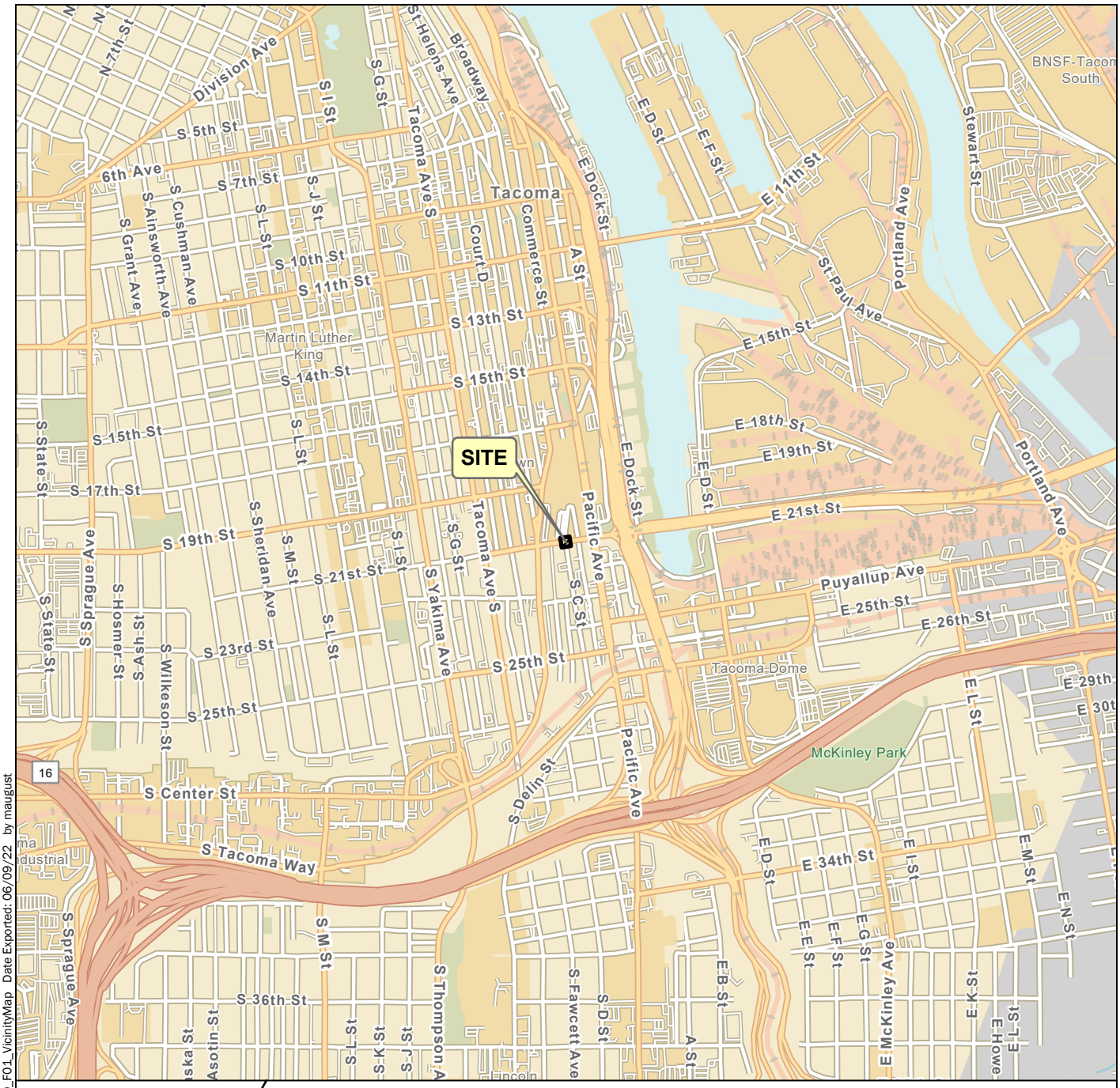

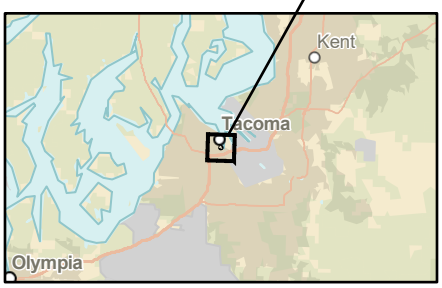

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Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: ESRI

Projection: NAD 1983 UTM Zone 10N

Vicinity Map

S 21st St. and S C St. Signal Improvements
Tacoma, Washington

GeoEngineers

Figure 1

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Legend

Boring by GeoEngineers, 2022

B1

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Feet

N W E S

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Bing Maps

Projection: NAD 1983 StatePlane Washington South FIPS 4602 Feet

Site Plan

S 21st St. and S C St. Signal Improvements
Tacoma, Washington

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Figure 2

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APPENDICES

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APPENDIX A
Field Methodology

APPENDIX A
FIELD METHODOLOGY

General

Subsurface conditions were investigated by completing 3 pothole borings at the site on May 16, 2022. A representative from GeoEngineers observed and classified the soils encountered and prepared a detailed log of each boring.

Soil Sampling

Soil samples were collected using hand-auger drilling equipment. Material retrieved from the soil borings was logged in general accordance with the Unified Soil Classification System (ASTM International [ASTM] D 2488-90). Soil samples were collected and placed into laboratory-supplied glass jars, labeled, and stored on ice in a cooler pending delivery to Onsite Environmental, Inc. in Redmond, Washington.

Field Screening Methods

The GeoEngineers' representative conducted visual field screening of each soil sample obtained from the borings. Field screening results can be used as a general guideline to delineate areas of potential petroleum-related contamination in soils. In addition, screening results are often used as a basis for selecting soil samples for chemical analyses. The screening methods employed included: 1) visual examination, 2) headspace vapor testing, and 3) water sheen testing.

Visual screening consists of observing the soil for stains indicative of petroleum-related or other contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbon concentrations are high. Sheen screening and headspace screening are more sensitive screening methods that can be effective in detecting petroleum-based products in concentrations lower than regulatory cleanup guidelines.

Headspace vapor testing for combustible gases consisted of using a Mini RAE 2000 photoionization detector (PID). Headspace vapor screening involves placing a soil sample in a plastic bag. Air is captured in the bag and the bag is shaken to expose the soil to the air trapped in the bag. The probe of the Mini RAE 2000 PID is inserted into the bag and the Mini RAE 2000 PID measures the concentration of photoionizable vapors in the sample bag headspace. The Mini RAE 2000 PID is calibrated to isobutylene and is designed to quantify organic vapor concentrations up to 2,500 ppm (parts per million). The lower threshold of significance of the Mini RAE 2000 PID in this application is 10 ppm; however, values of zero were recorded by the instrument.

Water sheen testing involves placing soil in water and observing the water surface for signs of sheen. The results of water sheen testing on soil samples from the borings are presented on the boring logs. Sheens are classified as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light colorless film, spotty to globular; spread is irregular, not rapid; areas of no sheen remain; film dissipates rapidly.

Moderate Sheen (MS)	Light to heavy film, may have some color or iridescence, globular to stringy, spread is irregular to flowing; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy colorful film with iridescence; stringy, spread is rapid; sheen flows off the sample; most of water surface may be covered with sheen.

APPENDIX B
Laboratory Analytical Data

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 26, 2022

Roger Chang
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0570-179-00
Laboratory Reference No. 2205-184

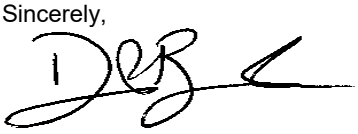
Dear Roger:

Enclosed are the analytical results and associated quality control data for samples submitted on May 17, 2022.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,



David Baumeister
Project Manager

Enclosures

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

Case Narrative

Samples were collected on May 16, 2022 and received by the laboratory on May 17, 2022. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
21st/ C Street-B1-COMP	05-184-01	Soil	5-16-22	5-17-22	
21st/ C Street-B2-COMP	05-184-02	Soil	5-16-22	5-17-22	
21st/ C Street-B3-COMP	05-184-03	Soil	5-16-22	5-17-22	

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

HYDROCARBON IDENTIFICATION
NWTPH-HCID

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B1-COMP**					
Laboratory ID:	05-184-01					
Gasoline Range Organics	**ND**	21	NWTPH-HCID	5-18-22	5-18-22	
Diesel Range Organics	**ND**	53	NWTPH-HCID	5-18-22	5-18-22	
Lube Oil	**Detected**	110	NWTPH-HCID	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**21st/ C Street-B2-COMP**					
Laboratory ID:	05-184-02					
Gasoline Range Organics	**ND**	22	NWTPH-HCID	5-18-22	5-18-22	
Diesel Range Organics	**ND**	55	NWTPH-HCID	5-18-22	5-18-22	
Lube Oil	**Detected**	110	NWTPH-HCID	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**21st/ C Street-B3-COMP**					
Laboratory ID:	05-184-03					
Gasoline Range Organics	**ND**	22	NWTPH-HCID	5-18-22	5-18-22	
Diesel Range Organics	**ND**	54	NWTPH-HCID	5-18-22	5-18-22	
Lube Oil Range Organics	**ND**	110	NWTPH-HCID	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

VOLATILE ORGANICS EPA 8260D
page 1 of 2

Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B1-COMP**					
Laboratory ID:	05-184-01					
Dichlorodifluoromethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Chloromethane	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Vinyl Chloride	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Bromomethane	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Chloroethane	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Trichlorofluoromethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Acetone	ND	0.0098	EPA 8260D	5-20-22	5-20-22	
Iodomethane	ND	0.0067	EPA 8260D	5-20-22	5-20-22	
Carbon Disulfide	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Methylene Chloride	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Methyl t-Butyl Ether	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Vinyl Acetate	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
2,2-Dichloropropane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
2-Butanone	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Bromochloromethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Chloroform	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Carbon Tetrachloride	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloropropene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Benzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloroethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Trichloroethene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloropropane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Dibromomethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Bromodichloromethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Methyl Isobutyl Ketone	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Toluene	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B1-COMP**					
Laboratory ID:	05-184-01					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Tetrachloroethene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,3-Dichloropropane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
2-Hexanone	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Dibromochloromethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromoethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Chlorobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Ethylbenzene	0.0036	0.00098	EPA 8260D	5-20-22	5-20-22	
m,p-Xylene	0.0057	0.0020	EPA 8260D	5-20-22	5-20-22	
o-Xylene	0.0045	0.00098	EPA 8260D	5-20-22	5-20-22	
Styrene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Bromoform	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Isopropylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Bromobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,1,2,2-Tetrachloroethane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichloropropane	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
n-Propylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
2-Chlorotoluene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
4-Chlorotoluene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,3,5-Trimethylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
tert-Butylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trimethylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
sec-Butylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
p-Isopropyltoluene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
n-Butylbenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Hexachlorobutadiene	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
Naphthalene	ND	0.0049	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260D	5-20-22	5-20-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*110*	*75-130*				
Toluene-d8	*101*	*78-128*				
4-Bromofluorobenzene	*98*	*71-130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B2-COMP**					
Laboratory ID:	05-184-02					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Chloromethane	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromomethane	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Chloroethane	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Acetone	0.052	0.011	EPA 8260D	5-20-22	5-20-22	
Iodomethane	ND	0.0073	EPA 8260D	5-20-22	5-20-22	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Methylene Chloride	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Vinyl Acetate	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Butanone	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Bromochloromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Chloroform	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Benzene	0.0076	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Trichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Dibromomethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Toluene	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	

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Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B2-COMP**					
Laboratory ID:	05-184-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Hexanone	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Chlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Ethylbenzene	0.0059	0.0011	EPA 8260D	5-20-22	5-20-22	
m,p-Xylene	0.011	0.0022	EPA 8260D	5-20-22	5-20-22	
o-Xylene	0.0097	0.0011	EPA 8260D	5-20-22	5-20-22	
Styrene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromoform	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
Naphthalene	ND	0.0054	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*112*	*75-130*				
Toluene-d8	*102*	*78-128*				
4-Bromofluorobenzene	*95*	*71-130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B3-COMP**					
Laboratory ID:	05-184-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Chloromethane	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromomethane	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Chloroethane	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Acetone	ND	0.011	EPA 8260D	5-20-22	5-20-22	
Iodomethane	ND	0.0076	EPA 8260D	5-20-22	5-20-22	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Methylene Chloride	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Vinyl Acetate	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Butanone	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Bromochloromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Chloroform	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Benzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Trichloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Dibromomethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Toluene	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B3-COMP**					
Laboratory ID:	05-184-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Hexanone	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Chlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Ethylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
m,p-Xylene	0.0028	0.0022	EPA 8260D	5-20-22	5-20-22	
o-Xylene	0.0020	0.0011	EPA 8260D	5-20-22	5-20-22	
Styrene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromoform	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Bromobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trimethylbenzene	0.0025	0.0011	EPA 8260D	5-20-22	5-20-22	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
Naphthalene	ND	0.0056	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-20-22	5-20-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*110*	*75-130*				
Toluene-d8	*101*	*78-128*				
4-Bromofluorobenzene	*97*	*71-130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B1-COMP**					
Laboratory ID:	05-184-01					
Naphthalene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
2-Methylnaphthalene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
1-Methylnaphthalene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Acenaphthylene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Acenaphthene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Fluorene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Phenanthrene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Anthracene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Fluoranthene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Pyrene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Benzo[a]anthracene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Chrysene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Benzo[b]fluoranthene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Benzo(j,k)fluoranthene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Benzo[a]pyrene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Indeno(1,2,3-c,d)pyrene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Dibenz[a,h]anthracene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Benzo[g,h,i]perylene	**ND**	0.014	EPA 8270E/SIM	5-18-22	5-19-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*42 - 116*				
Pyrene-d10	*73*	*41 - 116*				
Terphenyl-d14	*69*	*49 - 130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B2-COMP**					
Laboratory ID:	05-184-02					
Naphthalene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
2-Methylnaphthalene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
1-Methylnaphthalene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Acenaphthylene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Acenaphthene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Fluorene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Phenanthrene	**0.039**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Anthracene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Fluoranthene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Pyrene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[a]anthracene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Chrysene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[b]fluoranthene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo(j,k)fluoranthene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[a]pyrene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Indeno(1,2,3-c,d)pyrene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Dibenz[a,h]anthracene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[g,h,i]perylene	**ND**	0.037	EPA 8270E/SIM	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*42 - 116*				
Pyrene-d10	*76*	*41 - 116*				
Terphenyl-d14	*74*	*49 - 130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B3-COMP**					
Laboratory ID:	05-184-03					
Naphthalene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
2-Methylnaphthalene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
1-Methylnaphthalene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Acenaphthylene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Acenaphthene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Fluorene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Phenanthrene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Anthracene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Fluoranthene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Pyrene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[a]anthracene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Chrysene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[b]fluoranthene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo(j,k)fluoranthene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[a]pyrene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Dibenz[a,h]anthracene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[g,h,i]perylene	**ND**	0.0072	EPA 8270E/SIM	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*42 - 116*				
Pyrene-d10	*77*	*41 - 116*				
Terphenyl-d14	*74*	*49 - 130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

TOTAL METALS
EPA 6010D/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B1-COMP**					
Laboratory ID:	05-184-01					
Arsenic	**ND**	11	EPA 6010D	5-23-22	5-23-22	
Barium	**95**	2.7	EPA 6010D	5-23-22	5-23-22	
Cadmium	**ND**	0.53	EPA 6010D	5-23-22	5-23-22	
Chromium	**40**	0.53	EPA 6010D	5-23-22	5-23-22	
Lead	**10**	5.3	EPA 6010D	5-23-22	5-23-22	
Mercury	**ND**	0.27	EPA 7471B	5-18-22	5-18-22	
Selenium	**ND**	11	EPA 6010D	5-23-22	5-23-22	
Silver	**ND**	1.1	EPA 6010D	5-23-22	5-23-22	
Client ID:	**21st/ C Street-B2-COMP**					
Laboratory ID:	05-184-02					
Arsenic	**ND**	11	EPA 6010D	5-23-22	5-23-22	
Barium	**61**	2.7	EPA 6010D	5-23-22	5-23-22	
Cadmium	**ND**	0.55	EPA 6010D	5-23-22	5-23-22	
Chromium	**31**	0.55	EPA 6010D	5-23-22	5-23-22	
Lead	**ND**	5.5	EPA 6010D	5-23-22	5-23-22	
Mercury	**ND**	0.27	EPA 7471B	5-18-22	5-18-22	
Selenium	**ND**	11	EPA 6010D	5-23-22	5-23-22	
Silver	**ND**	1.1	EPA 6010D	5-23-22	5-23-22	
Client ID:	**21st/ C Street-B3-COMP**					
Laboratory ID:	05-184-03					
Arsenic	**ND**	11	EPA 6010D	5-23-22	5-23-22	
Barium	**49**	2.7	EPA 6010D	5-23-22	5-23-22	
Cadmium	**ND**	0.54	EPA 6010D	5-23-22	5-23-22	
Chromium	**22**	0.54	EPA 6010D	5-23-22	5-23-22	
Lead	**ND**	5.4	EPA 6010D	5-23-22	5-23-22	
Mercury	**ND**	0.27	EPA 7471B	5-18-22	5-18-22	
Selenium	**ND**	11	EPA 6010D	5-23-22	5-23-22	
Silver	**ND**	1.1	EPA 6010D	5-23-22	5-23-22	

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**21st/ C Street-B1-COMP**					
Laboratory ID:	05-184-01					
Diesel Range Organics	**ND**	27	NWTPH-Dx	5-25-22	5-25-22	
Lube Oil	**430**	53	NWTPH-Dx	5-25-22	5-25-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				
Client ID:	**21st/ C Street-B2-COMP**					
Laboratory ID:	05-184-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	5-25-22	5-25-22	U1
Lube Oil	**710**	55	NWTPH-Dx	5-25-22	5-25-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

HYDROCARBON IDENTIFICATION
NWTPH-HCID
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0518S1					
Gasoline Range Organics	**ND**	20	NWTPH-HCID	5-18-22	5-18-22	
Diesel Range Organics	**ND**	50	NWTPH-HCID	5-18-22	5-18-22	
Lube Oil Range Organics	**ND**	100	NWTPH-HCID	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Matrix: Soil
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0520S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Chloromethane	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Bromomethane	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Chloroethane	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Acetone	ND	0.010	EPA 8260D	5-20-22	5-20-22	
Iodomethane	ND	0.0068	EPA 8260D	5-20-22	5-20-22	
Carbon Disulfide	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Methylene Chloride	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
2-Butanone	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Bromochloromethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Chloroform	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Benzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Trichloroethene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Dibromomethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Toluene	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	

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VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0520S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
2-Hexanone	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Chlorobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Ethylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
m,p-Xylene	ND	0.0020	EPA 8260D	5-20-22	5-20-22	
o-Xylene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Styrene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Bromoform	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Isopropylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Bromobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
tert-Butylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
p-Isopropyltoluene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
Naphthalene	ND	0.0050	EPA 8260D	5-20-22	5-20-22	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-20-22	5-20-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*109*	*75-130*				
Toluene-d8	*103*	*78-128*				
4-Bromofluorobenzene	*100*	*71-130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Soil
Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0520S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	**0.0567**	**0.0597**	0.0500	0.0500	113	119	75-129	5	19	
Benzene	**0.0501**	**0.0515**	0.0500	0.0500	100	103	80-122	3	18	
Trichloroethene	**0.0494**	**0.0514**	0.0500	0.0500	99	103	80-129	4	18	
Toluene	**0.0510**	**0.0506**	0.0500	0.0500	102	101	80-120	1	18	
Chlorobenzene	**0.0490**	**0.0480**	0.0500	0.0500	98	96	80-120	2	18	
Surrogate:										
Dibromofluoromethane					*104*	*106*	*75-130*			
Toluene-d8					*101*	*101*	*78-128*			
4-Bromofluorobenzene					*100*	*100*	*71-130*			

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0518S1					
Naphthalene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Acenaphthylene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Acenaphthene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Fluorene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Phenanthrene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Anthracene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Pyrene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Chrysene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270E/SIM	5-18-22	5-18-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*82*	*42 - 116*				
Pyrene-d10	*85*	*41 - 116*				
Terphenyl-d14	*83*	*49 - 130*				

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0518S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0732**	**0.0681**	0.0833	0.0833	88	82	60 - 117	7	19	
Acenaphthylene	**0.0697**	**0.0713**	0.0833	0.0833	84	86	68 - 129	2	15	
Acenaphthene	**0.0710**	**0.0718**	0.0833	0.0833	85	86	67 - 127	1	15	
Fluorene	**0.0712**	**0.0746**	0.0833	0.0833	85	90	69 - 128	5	15	
Phenanthrene	**0.0697**	**0.0713**	0.0833	0.0833	84	86	70 - 126	2	15	
Anthracene	**0.0770**	**0.0784**	0.0833	0.0833	92	94	72 - 130	2	15	
Fluoranthene	**0.0720**	**0.0738**	0.0833	0.0833	86	89	70 - 135	2	15	
Pyrene	**0.0727**	**0.0728**	0.0833	0.0833	87	87	62 - 134	0	15	
Benzo[a]anthracene	**0.0775**	**0.0776**	0.0833	0.0833	93	93	73 - 128	0	15	
Chrysene	**0.0757**	**0.0745**	0.0833	0.0833	91	89	73 - 131	2	15	
Benzo[b]fluoranthene	**0.0698**	**0.0716**	0.0833	0.0833	84	86	72 - 134	3	15	
Benzo(j,k)fluoranthene	**0.0764**	**0.0746**	0.0833	0.0833	92	90	59 - 140	2	16	
Benzo[a]pyrene	**0.0725**	**0.0728**	0.0833	0.0833	87	87	70 - 135	0	15	
Indeno(1,2,3-c,d)pyrene	**0.0709**	**0.0681**	0.0833	0.0833	85	82	70 - 132	4	15	
Dibenz[a,h]anthracene	**0.0715**	**0.0720**	0.0833	0.0833	86	86	70 - 132	1	15	
Benzo[g,h,i]perylene	**0.0717**	**0.0718**	0.0833	0.0833	86	86	70 - 131	0	15	
Surrogate:										
2-Fluorobiphenyl					*80*	*82*	*42 - 116*			
Pyrene-d10					*81*	*83*	*41 - 116*			
Terphenyl-d14					*84*	*83*	*49 - 130*			

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

TOTAL METALS
EPA 6010D/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0523SM2					
Arsenic	**ND**	10	EPA 6010D	5-23-22	5-23-22	
Barium	**ND**	2.5	EPA 6010D	5-23-22	5-23-22	
Cadmium	**ND**	0.50	EPA 6010D	5-23-22	5-23-22	
Chromium	**ND**	0.50	EPA 6010D	5-23-22	5-23-22	
Lead	**ND**	5.0	EPA 6010D	5-23-22	5-23-22	
Selenium	**ND**	10	EPA 6010D	5-23-22	5-23-22	
Silver	**ND**	1.0	EPA 6010D	5-23-22	5-23-22	
Laboratory ID:	MB0518S1					
Mercury	**ND**	0.25	EPA 7471B	5-18-22	5-18-22	

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-171-02										
	ORIG	DUP									
Arsenic	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Barium	**87.5**	**80.9**	NA	NA		NA		NA	8	20	
Cadmium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Chromium	**26.8**	**24.4**	NA	NA		NA		NA	9	20	
Lead	**23.0**	**19.9**	NA	NA		NA		NA	14	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Laboratory ID:	05-119-01										
Mercury	**ND**	**ND**	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-171-02										
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	**93.9**	**91.3**	100	100	ND	**94**	**91**	75-125	3	20	
Barium	**176**	**177**	100	100	87.5	**89**	**89**	75-125	0	20	
Cadmium	**48.1**	**47.8**	50.0	50.0	ND	**96**	**96**	75-125	1	20	
Chromium	**125**	**120**	100	100	26.8	**98**	**94**	75-125	4	20	
Lead	**257**	**257**	250	250	23.0	**94**	**94**	75-125	0	20	
Selenium	**92.2**	**89.5**	100	100	ND	**92**	**90**	75-125	3	20	
Silver	**21.6**	**21.8**	25.0	25.0	ND	**86**	**87**	75-125	1	20	
Laboratory ID:	05-119-01										
Mercury	**0.488**	**0.493**	0.500	0.500	0.00870	**96**	**97**	80-120	1	20	

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0525S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	5-25-22	5-25-22	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	5-25-22	5-25-22	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-184-01									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Lube Oil	**407**	**402**	NA	NA		NA	NA	1	NA	
Surrogate:										
o-Terphenyl						*81* *80*	*50-150*			

Date of Report: May 26, 2022
Samples Submitted: May 17, 2022
Laboratory Reference: 2205-184
Project: 0570-179-00

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
21st/ C Street-B1-COMP	05-184-01	**6**	5-18-22
21st/ C Street-B2-COMP	05-184-02	**9**	5-18-22
21st/ C Street-B3-COMP	05-184-03	**8**	5-18-22

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

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

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEI
Project Number: 0570-179-00
Project Name: 21st / C Street
Project Manager: Roger Chong
Sampled by: RC

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 05-184

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
1	21st/C Street - B1 - COMP	5/16/22	1010	S	5	X			(X)	X			X					X				X
2	21st/C Street - B2 - COMP	5/16/22	1040	S	5	X			(X)	X			X					X				X
3	21st/C Street - B3 - COMP	5/16/22	1300	S	5	X				X			X					X				X

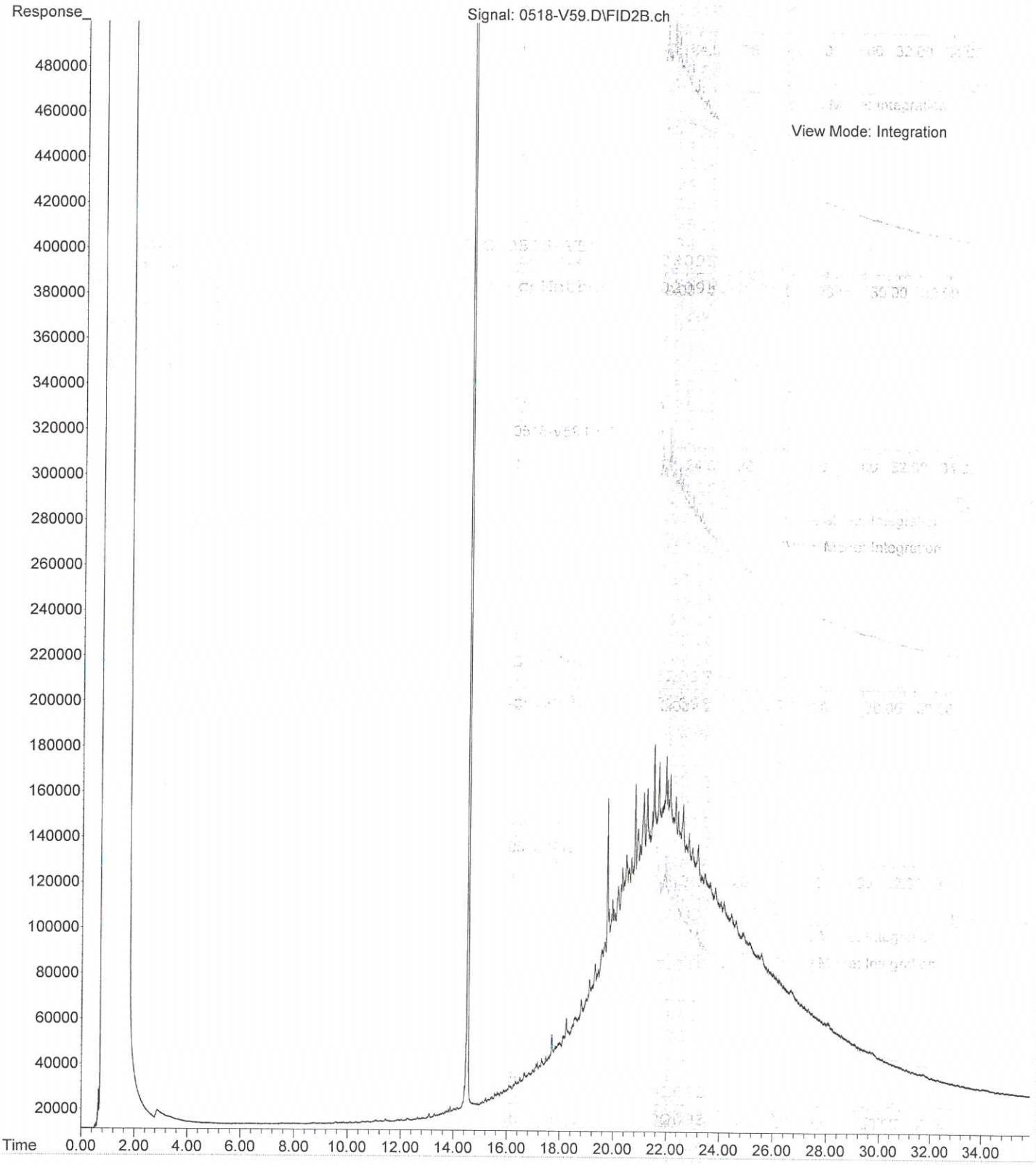
	Signature	Company	Date	Time
Relinquished	[signature]	GEI	5/17/22	935
Received	Van	opdy	5/17/22	935
Relinquished	Van	opdy	5/17/22	1205
Received	Nicolle Bahrin	OSE	5/17/22	1205
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
(X) Added 5/20/22. DB (STA

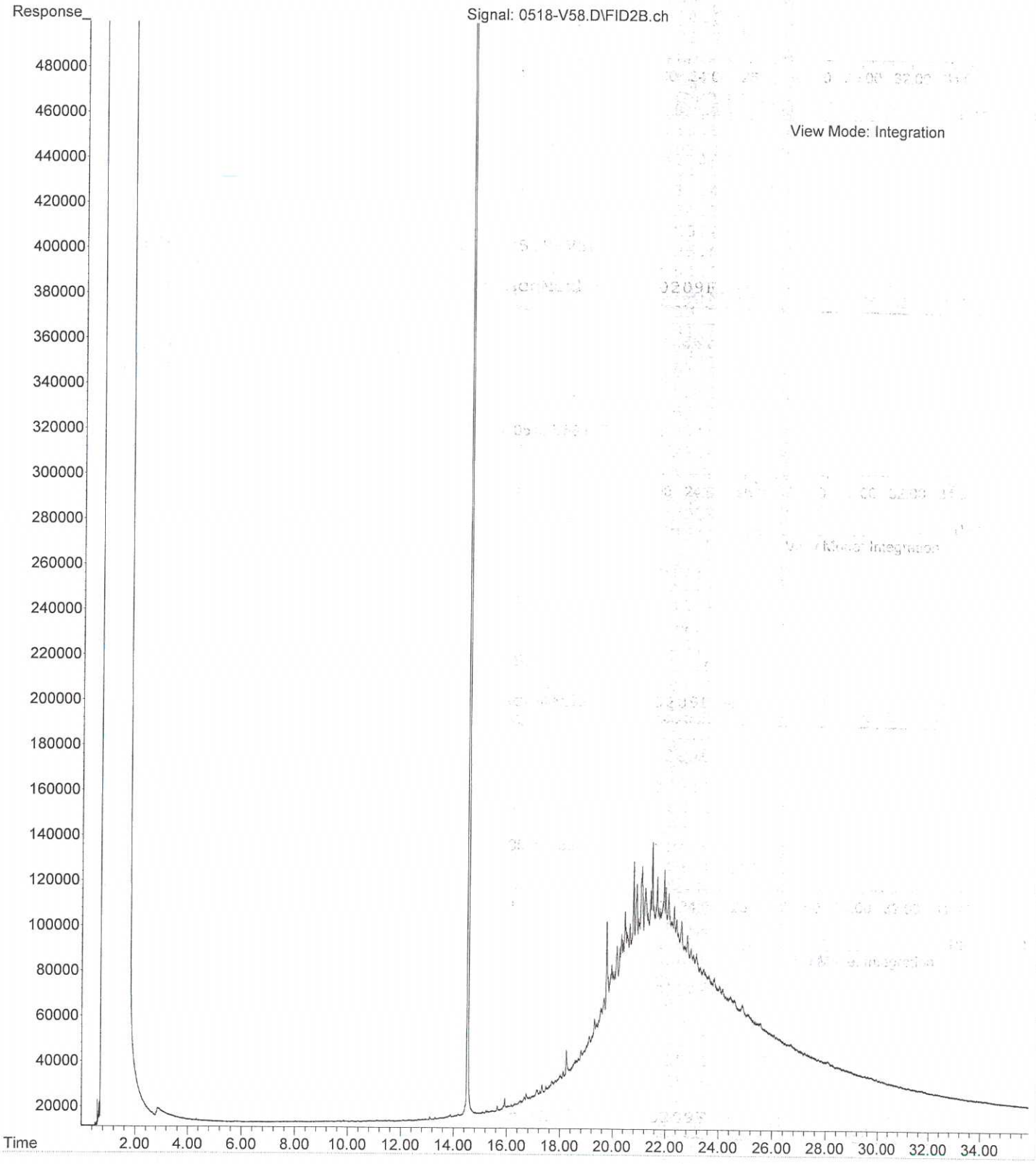
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

File :C:\msdchem\2\data\V220518.SEC\0518-V59.D
Operator : LAD
Acquired : 18 May 2022 13:42 using AcqMethod V220209F.M
Instrument : Vigo
Sample Name: 05-184-01
Misc Info : RearSamp
Vial Number: 59



File :C:\msdchem\2\data\V220518.SEC\0518-V58.D
Operator : LAD
Acquired : 18 May 2022 13:01 using AcqMethod V220209F.M
Instrument : Vigo
Sample Name: 05-184-02
Misc Info : RearSamp
Vial Number: 58



APPENDIX C
Ecology Public Records

Cleanup Site Details

Cleanup Site ID: 8861

Cleanup Site ID: 8861 **Facility/Site ID:** 35816943 **UST ID:** 10191 Site Page | Site Documents | View Map

Cleanup Site Name: HUNT & MOTTET SEATTLE HDWE Glossary

Alternate Names: HUNT & MOTTET, HUNT & MOTTET SEATTLE HDWE, HUNT & MOTTET SEATTLE HDWE A LTD PRT

LOCATION

Address: 2112 PACIFIC AVE **City:** TACOMA **Zip Code:** 98401 **County:** Pierce

Latitude: 47.24257 **Longitude:** -122.43649 **WRIA:** 10 **Legislative District:** 27 **Congressional District:** 6 **TRS:**

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** Yes

Statute: MTCA **NFA Date:** 8/30/2012 **Current VCP?** No **Past VCP?** No

Site Rank: N/A **NFA Reason:** Initial Investigation **Brownfield?** No

Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
HUNT & MOTTET SEATTLE HDWE	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
There are no current Institutional Controls in effect for this site.						

AFFECTED MEDIA & CONTAMINANTS

	MEDIA					
Contaminant	**Soil**	**Groundwater**	**Surface Water**	**Sediment**	**Air**	**Bedrock**
Benzene	B					
Lead	B					
Other Non-Halogenated Organics	B					
Petroleum-Gasoline	RB					

Key:
B - Below Cleanup Level
C - Confirmed Above Cleanup Level
RA - Remediated-Above
S - Suspected
R - Remediated
RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		8/4/1995
Site Discovery/Release Report Received	Completed		8/4/1995
Initial Investigation / Federal Preliminary Assessment	Completed		1/5/2012
LUST - NFA Determination II or SHA	Completed		8/30/2012
Site Status Changed to NFA	Completed		8/30/2012

Cleanup Site Details

Cleanup Site ID: 9505

Cleanup Site ID: 9505 **Facility/Site ID:** 51567736 **UST ID:** 9204 Site Page | Site Documents | View Map

Cleanup Site Name: UW Tacoma Branch Campus Glossary

Alternate Names: R & R INVESTMENT, UW Tacoma Branch Campus

LOCATION

Address: 1920 C ST S **City:** TACOMA **Zip Code:** 98402 **County:** Pierce

Latitude: 47.24416 **Longitude:** -122.43750 **WRIA:** 10 **Legislative District:** 27 **Congressional District:** 6 **TRS:** 20N 3E 37

DETAIL

Status: Cleanup Started **NFA Received?** No **Is PSI site?** Yes

Statute: MTCA **NFA Date:** N/A **Current VCP?** No **Past VCP?** No

Site Rank: N/A **NFA Reason:** N/A **Brownfield?** No

Site Manager: Malte, Dean **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
U OF W - TACOMA BRANCH CAMPUS	Upland	Cleanup Started	SW	Malte, Dean	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
There are no current Institutional Controls in effect for this site.						

AFFECTED MEDIA & CONTAMINANTS

	MEDIA					
Contaminant	**Soil**	**Groundwater**	**Surface Water**	**Sediment**	**Air**	**Bedrock**
Petroleum-Other	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		9/30/1993
Site Discovery/Release Report Received	Completed		9/30/1993
LUST - Report Received	Completed		1/20/1994

Cleanup Site Details

Cleanup Site ID: 10280

Cleanup Site ID: 10280 **Facility/Site ID:** 72474981 **UST ID:** 10626 Site Page | Site Documents | View Map

Cleanup Site Name: JET DISTRIBUTION CENTER Glossary

Alternate Names: HILL RAAUM INVEST CO, JET DISTRIBUTION CENTER

LOCATION

Address: 2100 JEFFERSON **City:** TACOMA **Zip Code:** 98402 **County:** Pierce

Latitude: 47.24245 **Longitude:** -122.43964 **WRIA:** 10 **Legislative District:** 27 **Congressional District:** 6 **TRS:** 20N 3E 9

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** Yes

Statute: MTCA **NFA Date:** 8/31/2012 **Current VCP?** No **Past VCP?** No

Site Rank: N/A **NFA Reason:** Initial Investigation **Brownfield?** No

Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
JET DISTRIBUTION CENTER	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
There are no current Institutional Controls in effect for this site.						

AFFECTED MEDIA & CONTAMINANTS

	MEDIA					
Contaminant	**Soil**	**Groundwater**	**Surface Water**	**Sediment**	**Air**	**Bedrock**
Benzene	B					
Lead	B					
Other Non-Halogenated Organics	B					
Petroleum-Diesel	RB					
Petroleum-Gasoline	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Report Received	Completed		12/17/1992
LUST - Notification	Completed		3/11/1993
Site Discovery/Release Report Received	Completed		3/11/1993
Initial Investigation / Federal Preliminary Assessment	Completed		1/5/2012
LUST - NFA Determination II or SHA	Completed		8/31/2012
Site Status Changed to NFA	Completed		8/31/2012

Cleanup Site Details

Cleanup Site ID: 11837

Cleanup Site ID: 11837 **Facility/Site ID:** 43392187 **UST ID:** 11237 Site Page | Site Documents | View Map

Cleanup Site Name: Heidelberg Brewery Glossary

Alternate Names: COLUMBIA ENERGY RESOURCES, COLUMBIA ENERGY RESOURCES A LIMITED P, Heidelberg Brewery, HEIDELBERG BREWERY (FORMER)

LOCATION

Address: 2120 S C ST **City:** TACOMA **Zip Code:** 98402 **County:** Pierce

Latitude: 47.24205 **Longitude:** -122.43801 **WRIA:** 10 **Legislative District:** 27 **Congressional District:** 6 **TRS:** 20N 3E 37

DETAIL

Status: Cleanup Started **NFA Received?** No **Is PSI site?** Yes

Statute: MTCA **NFA Date:** N/A **Current VCP?** Yes **Past VCP?** Yes

Site Rank: N/A **NFA Reason:** N/A **Brownfield?** No

Site Manager: Balaraju, Panjini **Responsible Unit:** Southwest **Active Institutional Control?** Yes

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
HEIDELBERG BREWERY	Upland	No Further Action Required	SW	Harris, Adam	Standard Voluntary Cleanup
South C Street ROW	Upland	Cleanup Started	SW	Balaraju, Panjini	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
Environmental Covenant	Soil	Restrict Access	8/11/2017	201708110218	Pierce	2021060014

Institutional Control documents may be available under the 'Site Documents' link at the top of the page. For more details on Institutional Controls, please see the **Environmental Covenants Registry List**.

AFFECTED MEDIA & CONTAMINANTS

	MEDIA					
Contaminant	**Soil**	**Groundwater**	**Surface Water**	**Sediment**	**Air**	**Bedrock**
Petroleum-Other	C					
Polycyclic Aromatic Hydrocarbons	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		4/4/2012
VCP Opinion on Site Cleanup	Completed	4/4/2012	1/28/2013
VCP Receipt of Plan or Report	Completed		6/7/2016
VCP Opinion on Site Cleanup Plan	Completed	6/7/2016	12/9/2016
Petroleum Contaminated Soil Model Remedies	Completed		12/9/2016
VCP Opinion on Site Cleanup	Canceled	1/4/2017	
VCP Receipt of Plan or Report	Completed		3/14/2017

Cleanup Site Details

Cleanup Site ID: 11837

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
VCP Opinion on Site Cleanup	Canceled	3/14/2017	
VCP Opinion on Property Cleanup	Completed	8/2/2017	12/26/2017
Petroleum Contaminated Soil Model Remedies	Completed		12/26/2017
Monitoring	Completed	12/26/2018	3/11/2019
VCP Receipt of Plan or Report	Completed		3/11/2019
Monitoring	Completed	12/26/2019	6/9/2020
VCP Receipt of Plan or Report	Completed		6/9/2020
Monitoring	Completed	12/26/2020	2/16/2021
VCP Receipt of Plan or Report	Completed		2/16/2021
Monitoring	Planned	12/26/2021	
Periodic Review	Planned	12/26/2022	
Monitoring	Planned	12/26/2022	

APPENDIX D
Report Limitations and Guidelines for Use

APPENDIX D
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This appendix provides information to help you manage your risks with respect to the use of this report. Please confer with GeoEngineers if you need to know more about how these "Report Limitations and Guidelines for Use" apply to your project or property.

Read These Provisions Closely

It is important to recognize that environmental engineering and geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce the risk of misunderstandings or unrealistic expectations that lead to disappointments, claims and disputes.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

GeoEngineers has performed environmental services for the South 21st Street and South C Street Signal Improvement Project located in Tacoma, Washington in general accordance with the scope and limitations of our proposal, dated January 7, 2022. This report has been prepared for the exclusive use of Fehr & Peers, Inc. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

GeoEngineers structures its services to meet the specific needs of its clients. For example, an ESA study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and property. Use of this report is not recommended for any purpose or project other than as expressly stated in this report.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for the South 21st Street and South C Street Signal Improvement Project located in Tacoma, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this Project. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- Not prepared for you,
- Not prepared for your Project,
- Not prepared for the specific site explored, or
- Completed before Project changes were made.

If changes to the Project or property occur after the date of this report, GeoEngineers cannot be responsible for any consequences of such changes in relation to this report unless we have been given the opportunity

1 Developed based on material provided by GBA, GeoProfessional Business Association; www.geoprofessional.org.

to review our interpretations and recommendations in the context of such changes. Based on that review, we can provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the party(ies) to whom this report is addressed. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. Within the limitations of the agreed Project scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in our scope of service, this report does not provide any geotechnical findings, conclusions, or recommendations, including but not limited to, the suitability of subsurface materials for construction purposes.

Do Not Separate Documentation from the Report

Environmental reports often include supplemental documentation, such as maps, figures and table. Do not separate such documentation from the report. Further, do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.

Environmental Regulations Change and Evolve

Some substances may be present in the vicinity of the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substances, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the subject property, by new releases of hazardous substances, new information or technology that become available subsequent to the report date, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying this report for its intended purpose so that GeoEngineers may evaluate whether changed conditions affect the continued applicability of the report.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other properties or for other on-site uses of the affected soil and/or groundwater. Note that hazardous substances may be present in some of the on-site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject property or reuse of the affected soil or groundwater

on-site to evaluate the potential for associated environmental liabilities. GeoEngineers will not assume responsibility for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject property to another location, or the reuse of such soil and/or groundwater on-site in any instances that we did not recommend, know of, or control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the subject property. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied its professional judgment to render an informed opinion about subsurface conditions throughout the property. Actual subsurface conditions may differ significantly from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this Project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

Information Provided by Others

GeoEngineers has relied upon certain data or information provided or compiled by others in the performance of our services. Although we use sources that we reasonably believe to be trustworthy, GeoEngineers cannot warrant or guarantee the accuracy or completeness of information provided or compiled by others.

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