ENVIRONMENTAL PARTNERS INC

1180 NW Maple Street, Suite 310 Issaquah, Washington 98027 ph 425.395.0010

February 27, 2020

Jon K. Wactor, Esq.,
Wactor & Wick, LLP
3640 Grand Avenue, Suite 200
Oakland, California 94612

Re: Cap Integrity and Groundwater Monitoring Report
Former Walker Chevrolet Property, VCP No. SW1040
633 Division Avenue
Tacoma, Washington

EPI Project Number: 48006.1

Dear Mr. Wactor:

INTRODUCTION

Environmental Partners, Inc. (EPI) is pleased to submit this *Cap Integrity and Groundwater Monitoring Report* documenting the completed pavement cap inspection and groundwater monitoring at the Former Walker Chevrolet property located at 633 Division Avenue in Tacoma, Washington (the subject property) for Wactor & Wick LLP on behalf its client ROIC Four Corner Square, LLC (ROIC). The subject property contains a Washington State Department of Ecology (Ecology) defined Site that is enrolled in Ecology's Voluntary Cleanup Program (VCP) under VCP Project Number SW1040. The Cleanup Site ID for the Site is 5318 and the Facility Site ID is 347832.

The location of the subject property and Site is indicated on Figure 1. EPI understands that the subject property was formerly an automotive retail business with auto service bays, fuel and waste oil underground storage tanks (USTs), and paint booths. The subject property and Site have undergone extensive redevelopment and the subject property is currently occupied by various retail shops and restaurants including Starbucks, Jimmy Johns, Rhein Haus Tacoma, and Stadium Thriftway, a retail grocery store.

BACKGROUND

The Site has a conditional No Further Action (NFA) determination from Ecology that is contingent on provisions of an Environmental Covenant (EC) filed with Pierce County on December 12, 2017. The EC lists ongoing prohibitions and requirements that must be met by the current property owner, ROIC Four Corner Square, LLC (ROIC), to maintain the conditional NFA determination. As mandated by Ecology's Model Toxics Control Act (MTCA), long-term compliance monitoring is required if, as described below, containment is the selected cleanup action for the Site or portion of a Site. This *Cap Integrity and Groundwater Monitoring Report* has been prepared per the requirements of Washington Administrative

Code (WAC) 173-340-820 and contains elements of WAC 173-340-410(3), as described in Exhibit D of the EC.

The conditional NFA for the Site is based on containing known areas of contaminated soil under a cap comprising portions of the existing building on the Site, which have been used by automotive businesses, and the asphalt- and concrete-paved surfaces on adjoining rights-of-way between the building and street curb lines near the southern portion of the building. The 25,820-square-foot building occupies the majority of the 29,730-square-foot parcel. The building provides an impermeable cap that prevents potential contact with contaminated soil and minimizes leaching of contaminants to groundwater. The pavement cap, which is exterior to the building cap, minimizes leaching of contaminants to groundwater. The extents of the building and pavement caps are illustrated on Figure 2.

This *Cap Integrity and Groundwater Monitoring Report* has been prepared to document the completed inspection of the caps, groundwater monitoring, that are required under the EC. The requirements are primarily described in Exhibit D of the EC, Cap Integrity and Groundwater Monitoring Plan, which is included in Attachment A.

CAP INSPECTION

Per Ecology's requirements stated within the EC under Section 2.a. the Grantor shall maintain the integrity of the building and pavement caps. The primary purpose of the building cap is to prevent potential contact with contaminated soils and to minimize leaching of contaminants to groundwater. The primary purpose of the pavement cap is to minimize leaching of leaching of contaminants to groundwater. Per Section 2.a. of the EC, the following restrictions shall apply within the building and pavement cap areas:

The following EC restrictions apply to the building cap:

> For the building cap, the Grantor shall not alter or remove the existing structures on the property in any manner that would expose contaminated soil, result in a release to the environment of contaminants, or create a new exposure pathway, without prior written approval of Ecology. Should the Grantor propose to remove all or a portion of the existing structure designated as a cap so that access to the underlying contamination is feasible, Ecology may require treatment or removal of the underlying contaminated soil.

The following EC restrictions apply to the pavement cap:

> If the Grantor becomes aware of any activities proposed on the adjacent portions of the City of Tacoma right-of-way that will compromise the integrity of the cap including: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; installation of underground utilities; or removal of the cap shall be reported to Ecology in writing within forty-eight (48) hours of notification. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to the cap.

EPI visited the Site on October 15, 2019. During the cap inspection, EPI surveyed the property to delineate the extent of the pavement cap and identify monuments or other permanent corner markers.

Additionally, EPI photo-documented areas within the right-of-way along the west side of the pavement cap, adjacent to North First Street, and the east side of the pavement cap along Division Avenue. The photos show small landscaped areas installed at the direction of the City prior to the development of the EC that are present within the EC-defined pavement cap footprint. Figure 2 illustrates the outline of the pavement cap boundary required by the EC. Photos of the condition of the pavement cap are presented in Attachment B.

Notably, the shallowest remaining impacted soil in the area within the pavement cap footprint is documented in the *Remedial Investigation and Feasibility Study Former Walker Chevrolet Site* (Aspect Consulting, 2016) to be 15 feet or more below ground surface (bgs). That minimum depth to residual impacts in soil is below the point of compliance for direct human contact per WAC 173-340-740(5)(d) of MTCA. In addition, it appears that the remaining impacted soil remains under a paved patio area or beneath sidewalk. Due to the 15-ft. bgs or greater depth of the residual impacted soil and overlying pavement, the landscaped areas do not pose a risk of direct contact with impacted soil to workers maintaining the landscaped areas or to the general public.

In addition to eliminating the direct contact exposure pathway, any residual soil contamination below the landscaped areas has not leached to groundwater. This finding is based on the empirical evidence of current groundwater sampling data, as described further in the Groundwater Monitoring section below. Therefore, the overlapping landscaped areas with the pavement cap footprint do not expose contaminated soil, result in a release to the environment of contaminants, or create a new exposure pathway,

On December 12, 2019, EPI contracted with Pace Engineers (Pace) to ensure that the extent of the pavement cap remained clearly delineated with monuments or other permanent corner markers as required per Section 1.f. of the EC. Pace located and permanently marked the exterior corners of the pavement cap. The interior corners of the pavement cap are defined by the exterior corners and perimeter of the building cap, which is intact and is not required to be delineated by markers. Pace set four (4) markers noting the exterior corner boundaries of the property cap annotated “A” through “D.” Two markers were set along the western side of the Property adjacent to N. 1st Street.

- Marker “A” is set lead and tack with a brass washer with a Northing of 709832.45 and an Easting of 1156493.60.

- Marker “B” is set nail with a brass washer with a Northing of 709791.98 and an Easting of 1156573.25.

- Marker “C” is set nail with a brass washer with 4-foot offset to ESE to EC corner with a Northing of 709739.81 and an Easting of 1156499.32.

- Marker “D” is set rebar and cap with a Northing of 709761.18 and an Easting of 1156457.26.

Refer to Environmental Covenant Exhibit prepared by Pace in Attachment B for marker locations and coordinates. Photographs of the EC pavement cap monuments surveyed and installed by Pace are included in Attachment B.

GROUNDWATER MONITORING

MW-11 is inside of a walk-in cooler inside the grocery store. The EC requires the Grantor to maintain MW-11 as an observation point in accordance with the EC Section 2.c. Sampling of MW-11 shall take place at a 24-month interval to confirm the effectiveness of the building cap. On October 9, 2019 EPI prepared a Compliance Monitoring Plan (CMP) in accordance with the requirements of WAC 173-340-820 and contained the elements of WAC 173-340-410(3) to satisfy the requirements of the EC. An EPI field geologist conducted the first 24-month sampling event on October 15, 2019 since the official recording of the EC on December 12, 2017. A copy of EPI's CMP is presented in Attachment C.

Sampling Methods

Groundwater samples were collected using low-flow purging and sampling methods and single-use sample tubing using a peristaltic pump following "Technical Guidance on Low Flow Purging and Sampling" (Nielsen 2002) as cited in Exhibit D of the EC (Attachment A). Groundwater was pumped from the middle portion of the water column in the well at a rate of less than 1.0 liter per minute (L/min). A water level indicator was used to monitor the depth to groundwater during pumping of the well to mitigate excessive drawdown of the water level, as defined by the technical guidance, during purging and sampling.

Purge water stabilization was evaluated using a calibrated multi-parameter water meter equipped with a in-line flow-cell for monitoring field parameters (e.g. temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential) during the pumping and sampling process. All field parameter data were recorded on field forms. Sampling procedures were adjusted to take all reasonable measure to prevent the potential loss of volatiles during sample collection. The groundwater sample was collected after these measurements stabilized to within 10 percent in three consecutive readings. The depth to groundwater was 51.62 feet in MW-11. Field groundwater parameters took considerable time to stabilize due to high turbidity in the water column. Approximately 1.5 wetted casing volumes were removed prior to stabilization to within 10 percent in three consecutive readings.

Following stabilization of field parameters, groundwater samples were collected directly from the discharge tubing at a flow rate of approximately 100 milliliters per minute or less. Samples collected for volatile organic compounds (VOC) and gasoline-range organics (GRO) analyses were retained in new, pre-labeled, laboratory-supplied 40 milliliter (mL) VOA vials with hydrochloric acid preservative. Samples collected for diesel-range organics (DRO) and oil-range organics (ORO) analyses were retained in new, pre-labeled, laboratory-supplied 500 mL amber glass bottles.

Samples were immediately placed in a chilled cooler at 4 degrees Celsius or lower, and delivered to the Ecology-accredited analytical laboratory Friedman and Bruya, Inc. All samples were handled and transported under standard chain-of-custody protocols. Groundwater samples were submitted for laboratory analysis of the following EC-defined Constituents of Concern (COCs) under standard laboratory turnaround times:

- VOCs by U.S. Environmental Protection Agency (EPA) Method 8260C;
- GRO by Northwest Total Petroleum Hydrocarbons as Gasoline (NWTPH-Gx) Method; and

- DRO and ORO by Northwest Total Petroleum Hydrocarbons as Diesel (NWTPH-Dx) Method.

MW-11 Analytical Results

Analytical results for the October 15, 2019 groundwater monitoring event were compared to their respective Ecology Model Toxics Control Act (MTCA) Method A or B Cleanup Levels (CULs).

- Trichloroethene (TCE) was detected at a concentration of 2.0 micrograms per liter (µg/L), which is less than the MTCA Method A CUL of 5.0 µg/L. Historical concentrations of TCE in samples from MW-11 range from 1.4 µg/L to 4.6 µg/L indicating that the current concentration of 2.0 µg/L is within the normal concentration range for MW-11 groundwater and that groundwater conditions are stable at the Site.

- GRO, DRO, and ORO were not detected at their MDLs from the MW-11 sample; therefore, the sample did not exceed the MTCA Method A groundwater CULs for those petroleum hydrocarbon ranges.

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected at their MDLs; therefore, the MW-11 sample did not exceed the MTCA Method A groundwater CULs for BTEX compounds.

The shallowest impacted soil remaining beneath the pavement cap is at 15-ft. bgs had detections of gasoline range organics, benzene, and xylene at concentrations exceeding MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses. The current groundwater sample from MW-11 confirmed that all petroleum hydrocarbon ranges and BTEX compounds were non-detect, which provides empirical evidence that residual petroleum hydrocarbon and BTEX concentrations present in soil under the pavement cap are not leaching to groundwater.

A summary of results from the groundwater sampling event are presented in Table 1. Laboratory data sheets of the analytical results are presented in Attachment D.

MW-11 Inspection Results

While conducting the scheduled groundwater sampling event on October 15, 2019, the EPI field geologist noted that the protective monument for MW-11 required maintenance. Specifically, the bolt tabs on the monument for MW-11 were stripped and therefore, the well monument cover could not be secured properly. MW-11's watertight well cap did not properly seal onto the top of the well casing after EPI accessed the well and had no well lock. [Note: Ecology's Minimum Standards for Construction and Maintenance of Wells (WAC 173-160) states that monitoring wells must be locked and secure].

When measuring the well's total depth, EPI noted a soft bottom indicating accumulated solids in the sump of the PVC well casing. Upon purging MW-11, EPI observed high turbidity levels, beginning at >1,000 nephelometric turbidity units (NTU) that, after purging and monitoring for 17 readings, stabilized at approximately 58 NTU's.

MW-11 Maintenance Activities

On December 12, 2019, EPI field staff conducted well maintenance activities and well redevelopment on MW-11. EPI replaced the stripped bolt tabs by tapping the well bolt tabs with a 3/8th tap and replacing the bolts with two new stainless steel 9/16th hex bolts and two new silicon washers. EPI replaced the well monument gasket to ensure a watertight seal and replaced the old well cap with a new 2-inch flush mounted locking watertight cap.

EPI field staff removed the accumulated solids from MW-11 well casing and sand filter pack using a decontaminated stainless-steel bailer due to access limitations. EPI removed a total of 19 gallons (or 10 casing volumes) of highly turbid groundwater with the bailer from MW-11 and re-established MW-11's original total depth.

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the 2019 groundwater sampling event and EPI's site inspections and maintenance activities, EPI concludes:

1. The building cap at the Subject Property is intact and appears to meet the requirements described in the EC.

2. The pavement cap was surveyed and marked with permanent corner markers located and installed by Pace using Washington State licensed surveyors as required under the EC.

3. Pavement appears to be absent at several small landscaped areas installed at the direction of the City prior to the development of the EC that are within the EC-defined pavement cap area. However, landscape maintenance workers and the general public are protected from potential direct contract with residual contamination based on the 15-ft. bgs or greater depth to residual impacts in soil, which is covered by clean soil and pavement. In addition, all petroleum hydrocarbon ranges and BTEX compounds were non-detect in the MW-11 groundwater sample indicating that residual petroleum hydrocarbon concentrations in soil beneath the pavement are not leaching to groundwater to a detectable degree at the Site. Thus, the overlapping landscaped areas with the pavement cap footprint do not expose contaminated soil, result in a release to the environment of contaminants, or create a new exposure pathway,

4. Analytical results for the groundwater sample from MW-11 are primarily non-detect with one detection of TCE at a concentration less than half the MTCA Method A CUL for groundwater. All other EC-defined COCs were not detected at their MDLs. The October 2019 groundwater sample from well MW-11 demonstrates compliance with the MTCA CULs for the 24-month groundwater monitoring event detailed in Section 2.b. of the EC.

5. Empirical evidence (i.e., groundwater sample results for MW-11) demonstrates that groundwater beneath the Site complies with MTCA Method A CULs.

6. Groundwater monitoring at MW-11 should continue under the existing biannual sampling frequency. Inspections of the building cap, pavement cap, and pavement cap corner monuments should be performed during the biannual groundwater monitoring events.

LIMITATIONS

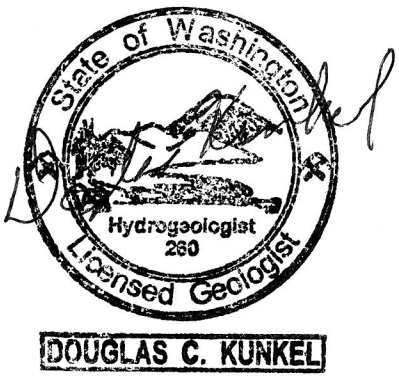
To the extent that preparation of this *Cap Integrity and Groundwater Monitoring Report* has required the application of best professional judgment and the application of scientific principles, certain results of this work have been based on subjective interpretation. EPI makes no warranties express or implied, including and without limitation, warranties as to merchantability or fitness for a particular purpose. The information provided in this report is not to be construed as legal advice.

This *Cap Integrity and Groundwater Monitoring Report* was prepared solely for Wactor & Wick, LLP and its client ROIC, and the contents herein may not be used or relied upon by any other person without the express written consent and authorization of EPI.

Sincerely,

Douglas Kunkel

Douglas Kunkel, LG, LHG
Principal Hydrogeologist



ENCLOSURES

Table

Table 1 Summary of Groundwater Sample Analytical Results

Figures

Figure 1 General Vicinity Map
Figure 2 Site Representation with Environmental Covenant Cap Locations

Attachments

Attachment A Environmental Covenant, Exhibit D
Attachment B Pavement Cap Condition and Monument Photographs
Attachment C Compliance Monitoring Plan
Attachment D Laboratory Data Sheets

REFERENCES

Aspect Consulting, 2016: *Remedial Investigation and Feasibility Study, Former Walker Chevrolet Site,* 633 Division Avenue, Tacoma, Washington. Prepared for David Shaw, Successor to Walker Chevrolet. July 25, 2016

Nielsen, 2002: *Technical Guidance on Low Flow Purging and Sampling.* The Nielsen Environmental Field School, Inc.

Table

Table 1 - Summary of Groundwater Sample Analytical Results
Cap Integrity and Groundwater Monitoring Report
Wactor & Wick, LLP
633 Division Avenue Tacoma, Washington

Sample Identification	Date Collected	Petroleum Hydrocarbons			Volatile Organic Compounds[c]						
		GRO[a]	DRO[b]	ORO[b]	TCE	PCE	Trans-1,2, Dichloroethene	Cis- 1,2-Dichloroethene	Benzene	Xylenes	Vinyl Chloride
MW-11	10/15/2019	<100	<50	<250	**2.0**	<1	<1	<1	<0.35	<2	<0.2
MTCA Method A Cleanup Levels for Groundwater[d]		**800/1,000[e]**	**500**	**500**	**5.0**	**5.0**	**NVE**	**NVE**	**5.0**	**1000**	**0.2**

Notes:

All results presented in micrograms per liter (µg/L).

Bold	Bold results indicate that the compound was detected above the laboratory method detection limit.
	Shaded cells indicate that the compound was detected at a concentration greater than the MTCA Method A cleanup level.
a	Analyzed by NWTPH-Gx.
b	Analyzed by NWTPH-Dx.
c	Analyzed by EPA Method 8260C.
d	Model Toxics Control Act (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1, Washington Administrative Code (WAC) 173-340-900.
e	MTCA Method A Groundwater Cleanup Level is 800 µg/L when benzene is present in the sample and 1,000 µg/L when benzene is not detected.
<	Less than laboratory method detection limit
NVE	No value established.

Compounds:

GRO	Gasoline-range organics
DRO	Diesel-range organics
ORO	Oil-range organics
TCE	Trichloroethene
PCE	Tetrachloroethene

Figures

NOTES:

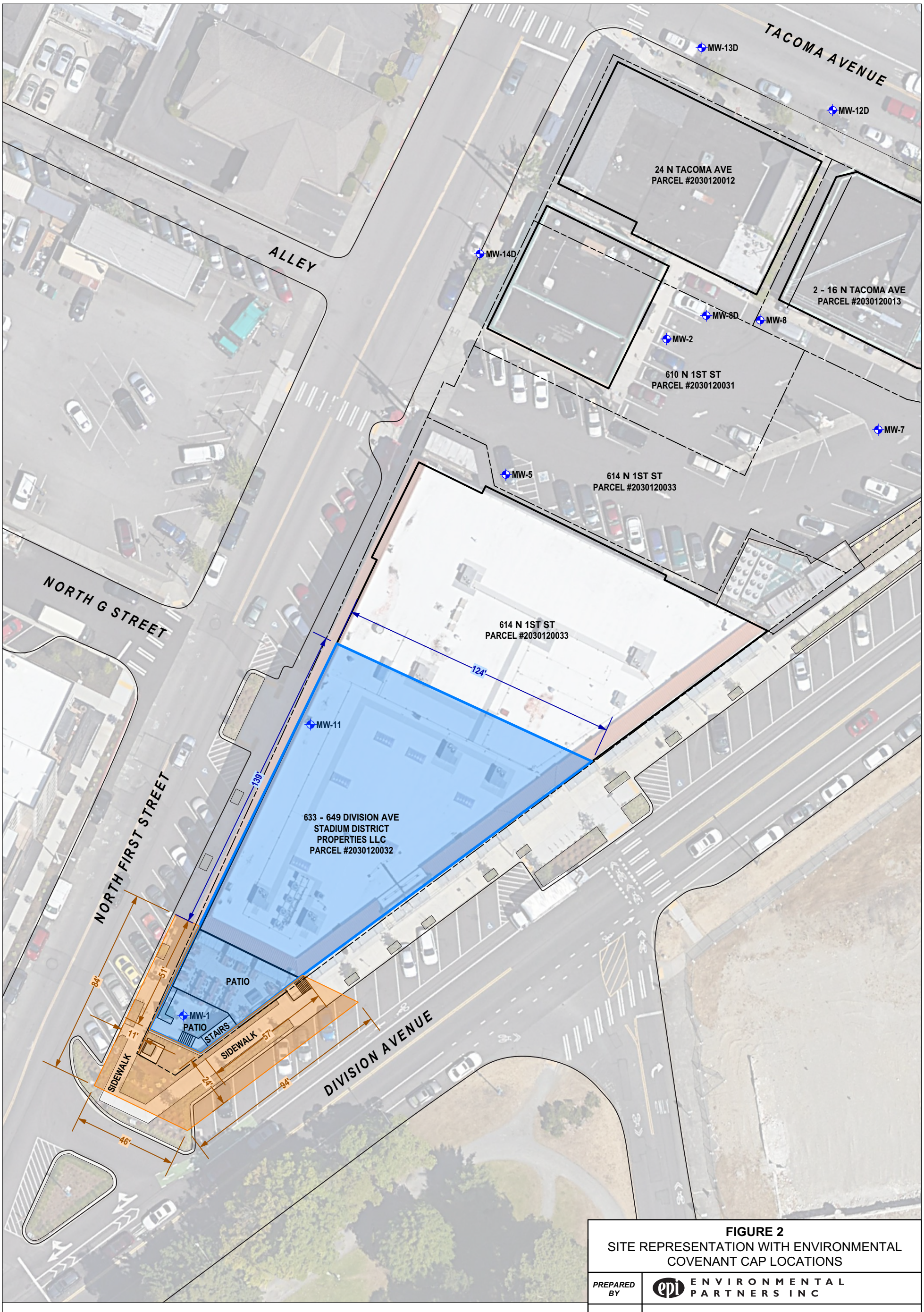
N

SOURCE: USGS 7.5 MINUTE QUADRANGLE (TOPOGRAPHIC)
TACOMA NORTH, WA
TACOMA SOUTH, WA
POVERTY BAY, WA
2017
SCALE = 1:25,000

FIGURE 1

GENERAL VICINITY MAP

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	CAP INTEGRITY AND GROUNDWATER MONITORING REPORT		
LOCATION	633 DIVISION AVENUE TACOMA, WASHINGTON		
PREPARED FOR	WACTOR & WICK LLP		
DATE 12/27/19	***DRAWN BY*** VPB	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 48006.0



NOTES:

- PAVEMENT CAP
- BUILDING CAP
- PARCEL BOUNDARY (PIERCE COUNTY GIS)
- MONITORING WELL LOCATION

BUILDING CAP LOCATIONS APPROXIMATED FROM EXHIBIT C (MAP ILLUSTRATING LOCATION OF RESTRICTIONS) BY ASPECT CONSULTING JULY 2017

AERIAL PHOTO: GOOGLE EARTH, MAY 2018

PARCEL BOUNDARIES APPROXIMATED FROM PIERCE COUNTY, WASHINGTON GIS MAPS

ALL SITE FEATURES ARE APPROXIMATED FROM FIGURES FROM ASPECT CONSULTING, PIERCE COUNTY GIS, AND GOOGLE EARTH AERIAL PHOTOGRAPHY

N

0 10 20 40

HORIZONTAL SCALE: 1" = 40'

FIGURE 2
SITE REPRESENTATION WITH ENVIRONMENTAL COVENANT CAP LOCATIONS

PREPARED BY	epi ENVIRONMENTAL PARTNERS INC		
REPORT	CAP INTEGRITY AND GROUNDWATER MONITORING REPORT		
LOCATION	633 DIVISION AVENUE TACOMA, WASHINGTON		
PREPARED FOR	WACTOR & WICK LLP		
DATE 12/27/19	***DRAWN BY*** VPB	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 48006.0

Attachment A
Environmental Covenant, Exhibit D

Exhibit D

CAP INTEGRITY AND GROUNDWATER MONITORING PLAN

The Grantor shall maintain the building cap in accordance with Section 2.a, and shall not modify or remove the existing structure over the area designated as a cap, as illustrated in Exhibit C, without written authorization from Ecology. There are no inspection requirements for the building cap on the Property. The presence and condition of the pavement cap in the right-of-way will be observed during five-year periodic reviews.

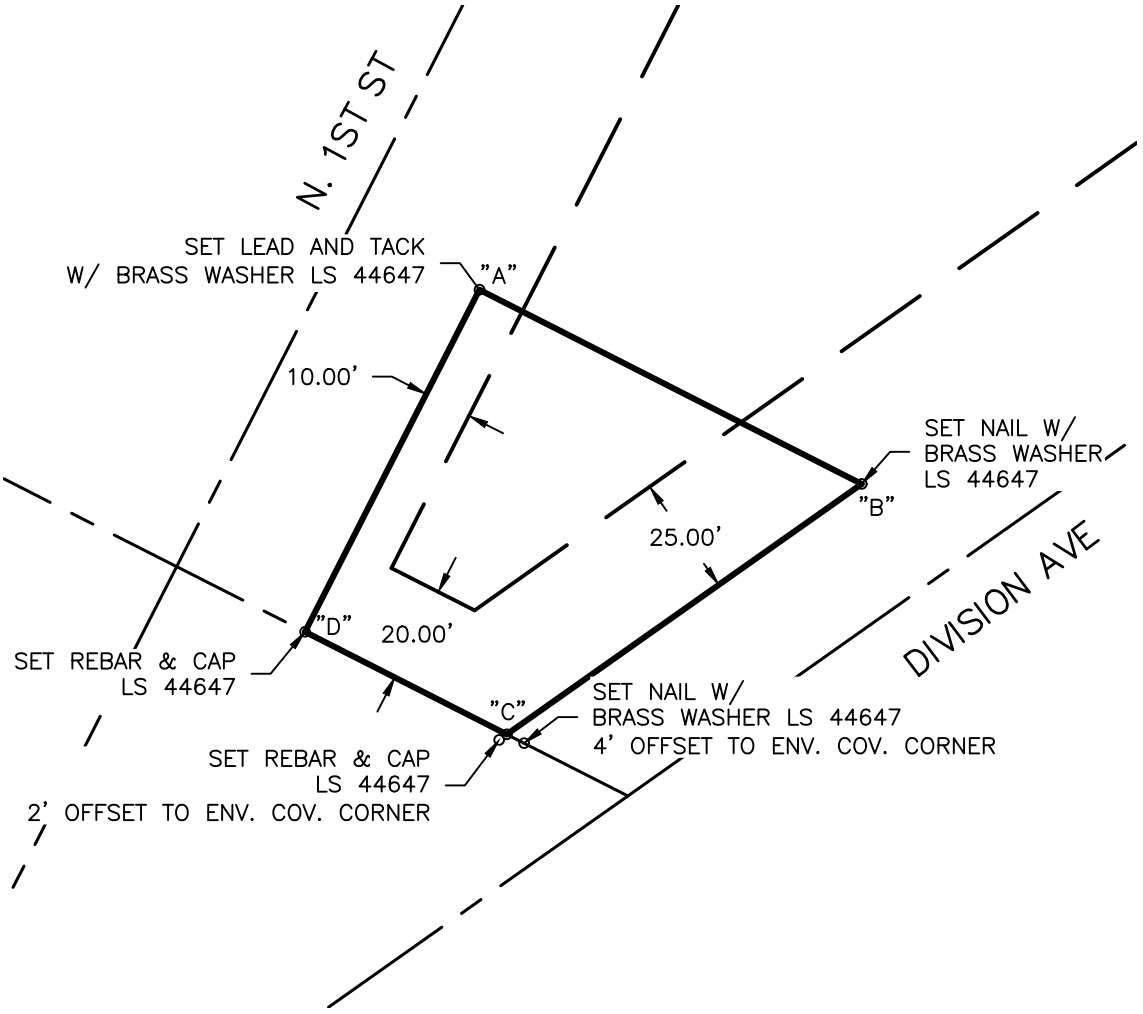
The Grantor shall maintain MW-11 as an observation point in accordance with Section 2.c. MW-11 shall be sampled at a 24-month interval following receipt of Ecology's no further action (NFA) opinion letter to confirm the effectiveness of the building cap. As mandated by the Model Toxic Control Act, long-term compliance monitoring is required if containment is the selected cleanup action for a site or a portion of a site. The compliance monitoring plan must be prepared as per the requirements of WAC 173-340-820 and must contain the elements of WAC 173-340-410(3). The plan must require submittal of groundwater samples for the analysis of volatile organic compounds by EPA Method 8260 and total petroleum hydrocarbons by Methods NWTPH-Gx and NWTPH-Dx, or equivalent. Sample results shall be submitted to the Department of Ecology through the Environmental Information Management (EIM) database. A groundwater monitoring report must be submitted to Ecology after each sampling event.

Groundwater samples will be collected following "Technical Guidance on Low Flow Purging and Sampling" (Nielson, 2002). Groundwater will be pumped from the middle portion of the water column in the well at a rate of less than 1.0 L/min. A water level indicator will be used to monitor the elevation of groundwater during pumping of the well to mitigate drops in the water level during pumping and sampling. A calibrated multi-parameter water meter will be used with a flow cell for monitoring groundwater (temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential) during the pumping and sampling process (Appendix A).

The Department of Ecology will perform a five-year periodic review of the Site in accordance with Section 173-340-420, Washington Administrative Code of the Model Toxics Control Act.

Attachment B
Pavement Cap Condition and Monument Photographs

ENVIRONMENTAL COV. EXHIBIT



"A" NORTHING 709832.45
EASTING 1156493.60

"B" NORTHING 709791.98
EASTING 1156573.25

"C" NORTHING 709739.81
EASTING 1156499.32

"D" NORTHING 709761.18
EASTING 1156457.26

PACE
An Engineering Services Company

11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p. 425.827.2014 | *f.* 425.827.5043

Civil | Structural | Planning | Survey
paceengrs.com

N

1"=40'

SCALE: 1"=40' FILE: V19564-BNDRY DATE: 12/19/19 JFS PROJ. NO.: 19564

Photograph 1: Pavement Cap Monument “A”.


Photograph 2: Pavement Cap Monument “A”.

Photograph 3: Pavement Cap Monument “B”.

Photograph 4: Pavement Cap Monument “B”.

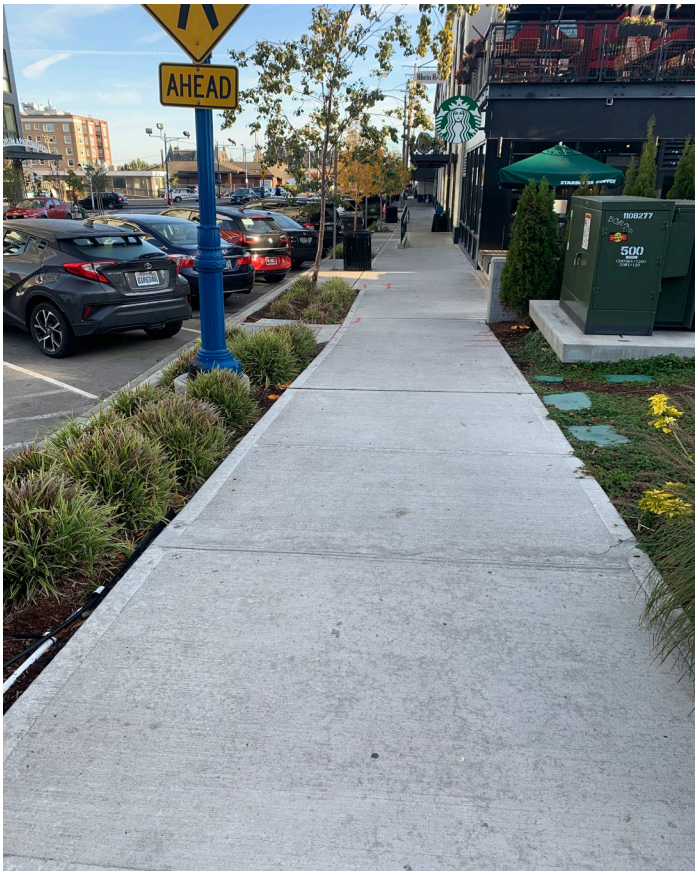
Photograph 5: Pavement Cap Monument “C” offset 4-feet from capped rebar at stake..

Photograph 6: Pavement Cap Monument “C” offset 4-feet from capped rebar at stake.

Photograph 7: Pavement Cap Monument “D”.

Photograph 8: Pavement Cap Monument “D”.

Photograph 9: View looking NE along Division Ave.



Photograph 10: View looking N along N 1st St.

Photograph 11: View looking SW along Division Ave.

Photograph 12: View looking N along N 1st St.

Attachment C
Compliance Monitoring Plan

ENVIRONMENTAL PARTNERS INC

1180 NW Maple Street, Suite 310 Issaquah, Washington 98027 ph 425.395.0010

COMPLIANCE MONITORING PLAN

DATE: October 9, 2019

TO: Wactor & Wick LLP

CC: Ms. Anna Nguyen, Esq., Wactor & Wick LLP

FROM: Mr. Sean Trimble, L.G.

RE: Compliance Monitoring Plan
Former Walker Chevrolet Property
633 Division Avenue
Tacoma, Washington

EPI Project Number: 48006.0

INTRODUCTION

Environmental Partners, Inc. (EPI) is pleased to submit this *Compliance Monitoring Plan* (CMP) documenting the planned inspection, groundwater monitoring, and reporting tasks at the Former Walker Chevrolet property located at 633 Division Avenue in Tacoma, Washington (the subject property). The subject property contains a Washington State Department of Ecology (Ecology) defined Site that is enrolled in Ecology's Voluntary Cleanup Program (VCP) under VCP Project Number SW1040. The Cleanup Site ID for the Site is 5318 and the Facility Site ID is 347832.

The location of the subject property and Site is indicated on Figure 1. EPI understands that the subject property was formerly an automotive retail business with auto service bays, fuel and waste oil underground storage tanks (USTs), and paint booths. The subject property and Site have undergone extensive redevelopment is currently occupied by various retail shops and restaurants including Starbucks, Jimmy Johns, Rhein Haus Tacoma, and Stadium Thriftway, a retail grocery store.

The Site has a conditional No Further Action (NFA) determination from Ecology that is contingent on provisions of an Environmental Covenant (EC) filed with Pierce County on December 12, 2017. The EC lists ongoing prohibitions and requirements that must be met by the current property owner, ROIC Tuo LLC (ROIC), to maintain the conditional NFA determination. As mandated by Ecology's Model Toxics Control Act (MTCA), long-term compliance monitoring is required if, as described below, containment is the selected cleanup action for the Site or portion of a Site. This CMP has been prepared per the requirements of Washington Administrative Code (WAC) 173-340-820 and contains elements of WAC 173-340-410(3), as described in Exhibit D of the EC. All work performed by EPI under this CMP will be confidential and will be performed under Wactor & Wick LLP oversight. Nothing will be submitted to any agency without Wactor & Wick LLP's advance approval.

The conditional NFA for the Site is based on containing known areas of contaminated soil under a cap comprising portions of the existing building on the Site, which have been used by automotive businesses, and the asphalt- and concrete-paved surfaces on adjoining rights-of-way between the building and street curb lines near the southern portion of the building. The 25,820-square-foot building occupies the majority of the 29,730-square-foot parcel. The building provides an impermeable cap that prevents potential contact with contaminated soil and minimizes leaching of contaminants to groundwater. The pavement cap minimizes leaching of contaminants to groundwater. The extents of the building and pavement caps are illustrated on Figure 2.

This CMP documents the planned work to implement the required inspection of the caps, groundwater monitoring, and reporting components of the EC, which are primarily described in Exhibit D of the EC, Cap Integrity and Groundwater Monitoring Plan (Attachment A).

SCOPE OF WORK

The scope of work for this CMP is described below:

- Inspect the Site to evaluate compliance with conditions of the EC, including a good faith effort to locate and preserve any reference monuments and boundary markers used to define the areal extent of coverage of the EC;
- Inspect and document the condition of the building and pavement caps;
- Perform groundwater monitoring at existing well MW-11 per the planning documents; and
- Prepare and submit a Client review draft groundwater monitoring and cap, monument, and boundary marker inspection report to Wactor & Wick LLP for review and revision. Send final report to Ecology with Wactor & Wick LLP approval.

Inspection of the Site

EPI personnel will inspect the Site for reference monuments and boundary markers used to delineate the areal extent of the cap as shown on Figure 2. In addition, personnel will inspect and evaluate if access to remedial action components described in the EC (e.g., monitoring wells, reference monuments, and boundary markers) is unencumbered.

Inspection and Document Condition of the Caps

In accordance with the EC, EPI will verify that the building cap and building structures have not been altered or removed in any manner that would expose contaminated soil, result in a release of contaminants to the environment, or create a new exposure pathway. Any damage to the cap that would compromise the integrity of the cap (e.g., drilling; digging; piercing the cap with a post, stake or similar device; grading; excavation; installation of underground utilities; or removal of the cap) will be reported to Wactor & Wick LLP.

Groundwater Monitoring

This task includes collecting a groundwater sample from monitoring well MW-11 to confirm the continued effectiveness of the building cap. The groundwater sample will be collected using low-flow purging and sampling methods and single-use sample tubing using a peristaltic pump following "Technical Guidance on Low Flow Purging and Sampling" (Nielsen 2002) as cited in Exhibit D of the EC (Attachment A). Groundwater will be pumped from the middle portion of the water column in the well at a rate of less than 1.0 liter per minute (L/min). A water level indicator will be used to monitor the depth to groundwater during pumping of the well to mitigate excessive decreases in the water level, as defined by the technical guidance, during purging and sampling.

Purge water stabilization will be evaluated using a calibrated multi-parameter water meter equipped with an in-line flow cell for monitoring field parameters (e.g., temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential) during the pumping and sampling process. All such data will be recorded on field forms. Sampling procedures will be adjusted to take all reasonable measures to prevent the potential loss of volatiles during sample collection. The groundwater sample will be collected after these measurements have stabilized to within 10 percent in consecutive readings or three wetted casing volumes have been removed, whichever occurs first.

Samples will be collected directly from the discharge tubing and will occur at a flow rate of approximately 100 milliliters per minute or less. Samples collected for volatile organic compound (VOC) and gasoline-range organics (GRO) analyses will be retained in new, pre-labeled, laboratory-supplied 40 milliliter VOA vials with hydrochloric acid preservative. Samples collected for diesel-range organics (DRO) and oil-range organics (ORO) analyses will be retained in new, pre-labeled, laboratory-supplied 500 milliliter (mL) amber glass bottles, or equivalent.

Samples will be immediately placed in a chilled cooler at 4 degrees Celsius or lower, pending delivery to an accredited analytical laboratory. All samples will be handled and transported under standard chain-of-custody protocols. Groundwater samples will be submitted for fixed base laboratory analysis of the following analytes under standard laboratory turnaround time:

- VOCs by U.S. Environmental Protection Agency (EPA) Method 8260C;
- GRO by Northwest Total Petroleum Hydrocarbons as Gasoline (NWTPH-Gx) Method; and
- DRO and ORO by Northwest Total Petroleum Hydrocarbons as Diesel (NWTPH-Dx) Method.

Groundwater Monitoring Report

Following completion of the inspection and groundwater monitoring at the subject property and receipt of laboratory data, EPI will prepare a *Groundwater Monitoring Report* (GMR) documenting sampling results from the MW-11 monitoring event, including depth to water, stabilized field parameter measurements, and laboratory data.

The GMR will also include documentation of inspection results and evaluations for access to remedial action components described in the EC, including monitoring wells, reference monuments, and boundary markers for delineation of the area of the Site that is subject to the EC. Results for inspection and evaluation of the condition of the building and pavement caps will also be documented in the GMR as described in the EC.

Schedule

As noted in Exhibit D of the EC, groundwater sampling at MW-11 will be performed at 24-month intervals. The initial groundwater sampling and cap inspection event will be scheduled and performed within 2 weeks of Wactor & Wick LLP's approval of this CMP. Laboratory analyses for the MW-11 groundwater sample will be performed under standard turnaround time, which is commonly 2 weeks for most analyses.

The Client review draft GMR will be submitted to Wactor & Wick LLP for review and comment within 2 weeks of receipt of all laboratory data. EPI will incorporate Wactor & Wick LLP's revisions and comments into a final GMR within 1 week of receiving Client comments and revisions. The final GMR will be submitted to Ecology, with Wactor & Wick LLP approval, as required under the terms of the EC. In addition, with advanced approval from Wactor & Wick LLP, EPI will upload analytical and field parameter data to Ecology's Environmental Information Management (EIM) database, as required under the EC.

ENCLOSURES

Figures

Figure 1 General Vicinity Map
Figure 2 Site Representation with Environmental Covenant Cap Locations

Attachment A

Exhibit D from the Stadium Retail LLC Environmental Covenant, electronically recorded in Pierce County, Washington, December 12, 2017

Figures

NOTES:

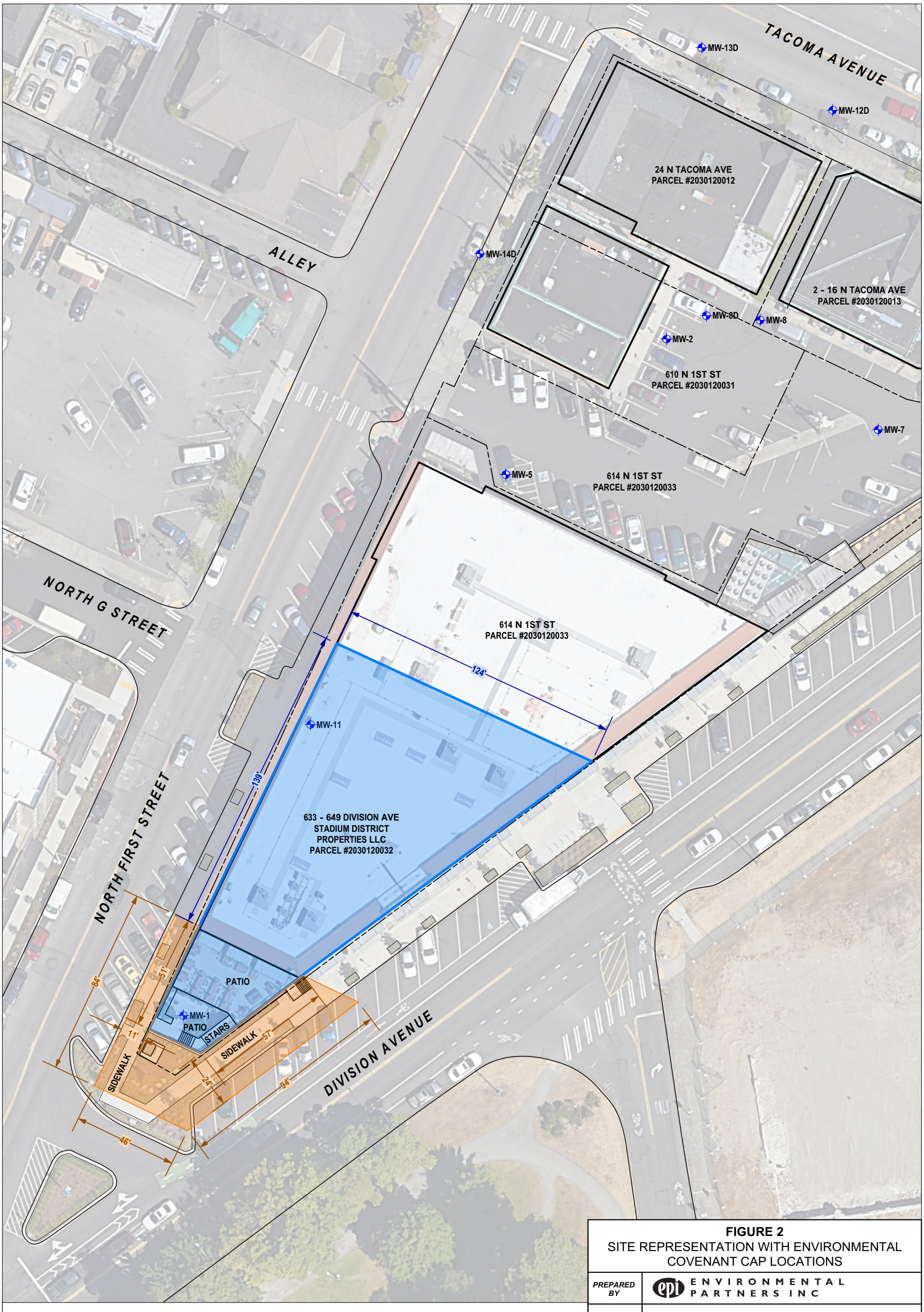
N

SOURCE: USGS 7.5 MINUTE QUADRANGLE (TOPOGRAPHIC)
TACOMA NORTH, WA
TACOMA SOUTH, WA
POVERTY BAY, WA
2017
SCALE = 1:25,000

FIGURE 1

GENERAL VICINITY MAP

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	COMPLIANCE MONITORING PLAN		
LOCATION	633 DIVISION AVENUE TACOMA, WASHINGTON		
PREPARED FOR	WACTOR & WICK LLP		
DATE 10/1/19	***DRAWN BY*** VPB	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 48006.0



NOTES:

- PAVEMENT CAP
- BUILDING CAP
- PARCEL BOUNDARY (PIERCE COUNTY GIS)
- MONITORING WELL LOCATION

BUILDING CAP LOCATIONS APPROXIMATED FROM EXHIBIT C (MAP ILLUSTRATING LOCATION OF RESTRICTIONS) BY ASPECT CONSULTING JULY 2017

AERIAL PHOTO: GOOGLE EARTH, MAY 2018

PARCEL BOUNDARIES APPROXIMATED FROM PIERCE COUNTY, WASHINGTON GIS MAPS

ALL SITE FEATURES ARE APPROXIMATED FROM FIGURES FROM ASPECT CONSULTING, PIERCE COUNTY GIS, AND GOOGLE EARTH AERIAL PHOTOGRAPHY

N

0 10 20 40

HORIZONTAL SCALE: 1" = 40'

FIGURE 2
SITE REPRESENTATION WITH ENVIRONMENTAL COVENANT CAP LOCATIONS

PREPARED BY	ENVIRONMENTAL PARTNERS INC		
REPORT	COMPLIANCE MONITORING PLAN		
LOCATION	633 DIVISION AVENUE TACOMA, WASHINGTON		
PREPARED FOR	WACTOR & WICK LLP		
DATE 12/27/19	***DRAWN BY*** VPB	***REVIEWED BY*** DCK	***PROJECT NUMBER*** 48006.0

Attachment A
Exhibit D from the Stadium Retail LLC Environmental Covenant, electronically recorded in Pierce County, Washington, December 12, 2017

Exhibit D

CAP INTEGRITY AND GROUNDWATER MONITORING PLAN

The Grantor shall maintain the building cap in accordance with Section 2.a, and shall not modify or remove the existing structure over the area designated as a cap, as illustrated in Exhibit C, without written authorization from Ecology. There are no inspection requirements for the building cap on the Property. The presence and condition of the pavement cap in the right-of-way will be observed during five-year periodic reviews.

The Grantor shall maintain MW-11 as an observation point in accordance with Section 2.c. MW-11 shall be sampled at a 24-month interval following receipt of Ecology's no further action (NFA) opinion letter to confirm the effectiveness of the building cap. As mandated by the Model Toxic Control Act, long-term compliance monitoring is required if containment is the selected cleanup action for a site or a portion of a site. The compliance monitoring plan must be prepared as per the requirements of WAC 173-340-820 and must contain the elements of WAC 173-340-410(3). The plan must require submittal of groundwater samples for the analysis of volatile organic compounds by EPA Method 8260 and total petroleum hydrocarbons by Methods NWTPH-Gx and NWTPH-Dx, or equivalent. Sample results shall be submitted to the Department of Ecology through the Environmental Information Management (EIM) database. A groundwater monitoring report must be submitted to Ecology after each sampling event.

Groundwater samples will be collected following "Technical Guidance on Low Flow Purging and Sampling" (Nielson, 2002). Groundwater will be pumped from the middle portion of the water column in the well at a rate of less than 1.0 L/min. A water level indicator will be used to monitor the elevation of groundwater during pumping of the well to mitigate drops in the water level during pumping and sampling. A calibrated multi-parameter water meter will be used with a flow cell for monitoring groundwater (temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential) during the pumping and sampling process (Appendix A).

The Department of Ecology will perform a five-year periodic review of the Site in accordance with Section 173-340-420, Washington Administrative Code of the Model Toxics Control Act.

Attachment D
Laboratory Data Sheets

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

October 24, 2019

Doug Kunkel, Project Manager
Environmental Partners, Inc.
1180 NW Maple St, Suite 310
Issaquah, WA 98027

RE: Wactor & Wick 48006, F&BI 910318

Dear Mr Kunkel:

Included are the results from the testing of material submitted on October 16, 2019 from the Wactor & Wick 48006, F&BI 910318 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Cynthia Moon
EPI1024R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 16, 2019 by Friedman & Bruya, Inc. from the Environmental Partners Wactor & Wick 48006, F&BI 910318 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Environmental Partners
910318-01	MW-11

All quality control requirements were acceptable.

Date of Report: 10/24/19
Date Received: 10/16/19
Project: Wactor & Wick 48006, F&BI 910318
Date Extracted: 10/22/19
Date Analyzed: 10/22/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
MW-11 910318-01	<100	82
Method Blank 09-2516 MB	<100	87

Date of Report: 10/24/19
Date Received: 10/16/19
Project: Wactor & Wick 48006, F&BI 910318
Date Extracted: 10/17/19
Date Analyzed: 10/18/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-11 910318-01	<50	<250	96
Method Blank 09-2580 MB	<50	<250	89

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW-11	Client:	Environmental Partners
Date Received:	10/16/19	Project:	Wactor & Wick 48006, F&BI 910318
Date Extracted:	10/18/19	Lab ID:	910318-01
Date Analyzed:	10/18/19	Data File:	101832.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	2.0	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Environmental Partners
Date Received:	Not Applicable	Project:	Wactor & Wick 48006, F&BI 910318
Date Extracted:	10/18/19	Lab ID:	09-2554 mb
Date Analyzed:	10/18/19	Data File:	101831.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 10/24/19
Date Received: 10/16/19
Project: Wactor & Wick 48006, F&BI 910318

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 910400-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	90	69-134

Date of Report: 10/24/19
Date Received: 10/16/19
Project: Wactor & Wick 48006, F&BI 910318

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	84	80	61-133	5

Date of Report: 10/24/19
Date Received: 10/16/19
Project: Wactor & Wick 48006, F&BI 910318

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	87	100	25-158	14
Chloromethane	ug/L (ppb)	50	108	113	45-156	5
Vinyl chloride	ug/L (ppb)	50	101	106	50-154	5
Bromomethane	ug/L (ppb)	50	100	105	55-143	5
Chloroethane	ug/L (ppb)	50	99	101	58-146	2
Trichlorofluoromethane	ug/L (ppb)	250	102	106	50-150	4
Acetone	ug/L (ppb)	250	80	89	53-131	11
1,1-Dichloroethene	ug/L (ppb)	50	94	100	67-136	6
Hexane	ug/L (ppb)	50	100	101	57-137	1
Methylene chloride	ug/L (ppb)	50	96	104	39-148	8
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	95	104	64-147	9
trans-1,2-Dichloroethene	ug/L (ppb)	50	96	103	68-128	7
1,1-Dichloroethane	ug/L (ppb)	50	96	102	79-121	6
2,2-Dichloropropane	ug/L (ppb)	50	113	110	55-143	3
cis-1,2-Dichloroethene	ug/L (ppb)	50	93	100	80-123	7
Chloroform	ug/L (ppb)	50	95	101	80-121	6
2-Butanone (MEK)	ug/L (ppb)	250	100	101	57-149	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	96	101	73-132	5
1,1,1-Trichloroethane	ug/L (ppb)	50	99	101	81-125	2
1,1-Dichloropropene	ug/L (ppb)	50	94	100	77-129	6
Carbon tetrachloride	ug/L (ppb)	50	104	107	75-158	3
Benzene	ug/L (ppb)	50	92	97	69-134	5
Trichloroethene	ug/L (ppb)	50	90	96	79-113	6
1,2-Dichloropropane	ug/L (ppb)	50	98	102	77-123	4
Bromodichloromethane	ug/L (ppb)	50	105	109	81-133	4
Dibromomethane	ug/L (ppb)	50	95	101	82-125	6
4-Methyl-2-pentanone	ug/L (ppb)	250	105	106	65-138	1
cis-1,3-Dichloropropene	ug/L (ppb)	50	107	111	82-132	4
Toluene	ug/L (ppb)	50	99	103	72-122	4
trans-1,3-Dichloropropene	ug/L (ppb)	50	109	110	80-136	1
1,1,2-Trichloroethane	ug/L (ppb)	50	102	104	75-124	2
2-Hexanone	ug/L (ppb)	250	104	105	60-136	1
1,3-Dichloropropane	ug/L (ppb)	50	100	102	76-126	2
Tetrachloroethene	ug/L (ppb)	50	97	101	76-121	4
Dibromochloromethane	ug/L (ppb)	50	106	108	84-133	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	101	103	82-115	2
Chlorobenzene	ug/L (ppb)	50	97	102	83-114	5
Ethylbenzene	ug/L (ppb)	50	98	102	77-124	4
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	110	116	84-127	5
m,p-Xylene	ug/L (ppb)	100	98	103	81-112	5
o-Xylene	ug/L (ppb)	50	98	104	81-121	6
Styrene	ug/L (ppb)	50	99	104	84-119	5
Isopropylbenzene	ug/L (ppb)	50	98	103	80-117	5
Bromoform	ug/L (ppb)	50	113	114	74-136	1
n-Propylbenzene	ug/L (ppb)	50	104	107	74-126	3
Bromobenzene	ug/L (ppb)	50	101	104	80-121	3
1,3,5-Trimethylbenzene	ug/L (ppb)	50	102	106	78-123	4
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	109	112	66-126	3
1,2,3-Trichloropropane	ug/L (ppb)	50	105	106	67-124	1
2-Chlorotoluene	ug/L (ppb)	50	101	105	77-127	4
4-Chlorotoluene	ug/L (ppb)	50	102	105	78-128	3
tert-Butylbenzene	ug/L (ppb)	50	101	107	80-123	6
1,2,4-Trimethylbenzene	ug/L (ppb)	50	99	103	79-122	4
sec-Butylbenzene	ug/L (ppb)	50	102	106	80-116	4
p-Isopropyltoluene	ug/L (ppb)	50	100	105	81-123	5
1,3-Dichlorobenzene	ug/L (ppb)	50	100	105	83-113	5
1,4-Dichlorobenzene	ug/L (ppb)	50	97	102	83-107	5
1,2-Dichlorobenzene	ug/L (ppb)	50	97	104	84-112	7
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	101	109	57-141	8
1,2,4-Trichlorobenzene	ug/L (ppb)	50	100	106	72-130	6
Hexachlorobutadiene	ug/L (ppb)	50	91	97	53-141	6
Naphthalene	ug/L (ppb)	50	99	106	64-133	7
1,2,3-Trichlorobenzene	ug/L (ppb)	50	97	102	65-136	5

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

910318

SAMPLE CHAIN OF CUSTODY

ME 10-16-19

Page # 1 of 1 VW2 / B05

Report To: Doug Kunkel

Company: Environmental Partners Inc.

Address: 1180 NW Maple St. Suite 310

City, State, ZIP: Issaquah, WA 98027

Phone: (425) 395-0010 Email: DougK@epi-wa.com

SAMPLERS (signature): [signature]

PROJECT NAME	PO #
Wactor & Wick	48006
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME
- [X] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
MW-11	01 A-G	10/15/19	1822	water	7	X	X			X							

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Wesley Weisberg	EPI	~~10/15/19~~ 10/16/19	0633
Received by: [signature]	Michael Erdahl	FBI	10/16/19	↓
Relinquished by:				
Received by:		Samples received at		4 °C