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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

July 20, 2022

Danny Monson
Marathon Petroleum Company
301 E Ocean Boulevard, Suite 1600
Long Beach, California 90802
(DMMonson@MarathonPetroleum.com)

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:

- **Site Name:** Tesoro 62172
- **Site Address:** 401 E College Way, Mount Vernon, Washington 98273
- **Facility/Site No.:** 69264124
- **Cleanup Site ID No.:** 6524
- **VCP Project No.:** NW2419

Dear Danny Monson:

The Washington State Department of Ecology (Ecology) received your request for an opinion on Work Planned the Tesoro 62172 facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.

Issue Presented and Opinion

Pursuant to completion of the Site characterization work described in the *Updated Conceptual Site Model, dated December 9, 2021 (December 2021 CSM)*, and the *Fourth Quarter 2021 Groundwater Monitoring Report, dated January 24, 2022 (4Q21 GWMR)*, is additional work necessary to resolve data gaps?

YES. Ecology has determined that additional work is necessary to evaluate contaminated soil and groundwater remaining in place following in-situ treatments at the Site. Ecology concurs with the development of a cleanup action plan to address residual TPH-G impacts in the vicinity of MW01B.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline-range total petroleum hydrocarbons (TPH-G) and benzene into the Soil and Groundwater.

Enclosure A includes a detailed description and diagrams of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the documents listed in **Enclosure B**.
A number of these documents are accessible in electronic form from the Site web page[1]. The complete records are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our Public Records Request page[2] to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis and Opinion

Based on a review of the *December 2021 CSM* and the *4Q21 GWMR*, Ecology has determined:

- **Soil characterization.**

  The Site is contaminated with petroleum hydrocarbons that are the result of historical operations of gasoline service stations at the Property, described in detail in **Enclosure A**. The contaminants of concern (COCs) at the Site include gasoline-range total petroleum hydrocarbons (TPH-G), benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX). The extent of soil contamination has been defined to the north, south, and southwest of the Site.

  Your characterization of the Site is sufficient to establish cleanup standards. Ecology concurs that MTCA Method A cleanup levels for unrestricted uses (WAC 173-340-740, Table 740-1), with the standard point of compliance throughout the Site to a depth of 15 feet below ground surface (bgs), per WAC 173-340-740(6)(d), are appropriate.

  Based on the results of soil sampling conducted from 2011 to 2016 and detailed in **Enclosure A**, soil contaminated with TPH-G and/or benzene above cleanup levels above the standard point of compliance is present in borings B104, B107, B108, P04, and P07. Borings B104, P04, and P07 contain TPH-G and benzene slightly above cleanup levels. Since benzene has not been detected in groundwater since 2014, an empirical demonstration that the leaching pathway for benzene is incomplete at the Site is an option. Please refer to Ecology's Frequently Asked Questions (FAQ's) Regarding Empirical Demonstrations and Related Issues Implementation Memorandum, dated June 21, 2016[3] for further information on this process.

[1] https://apps.ecology.wa.gov/cleanupsearch/site/6524
[2] https://ecology.wa.gov/Footer/Public-records-requests
[3] https://apps.ecology.wa.gov/publications/SummaryPages/1609047.html

Borings B107 and 108 were advanced in 2014, and in-situ chemical treatments since that time may have reduced concentrations of COCs below cleanup levels. Further soil sampling is needed in these areas to assess the efficacy of in-situ treatments since 2014 and constrain the limits of any remaining soil in the northwest corner of the Site with concentrations of COCs above Method A cleanup levels. A figure documenting the current extent of contaminated soil should be prepared following additional soil excavations. Table 2 of the *December 2021 CSM* should also be updated to flag historical soil samples remediated by in-situ treatment.

If additional soil sampling activities document the presence of COCs above Method A cleanup levels, the use of institutional controls will be necessary in order to ensure the cleanup remains protective of human health and the environment in accordance with WAC 173-340-440(4)(a).

- **Groundwater characterization.**

Groundwater characterization at the Site is sufficient to establish cleanup standards. Groundwater is present at the Site at depths of approximately 7.5 to 12 feet bgs. The highest beneficial use for groundwater is considered to be as a potable source, unless it can be demonstrated that groundwater is non-potable. MTCA Method A cleanup levels, which are protective of groundwater as a potable source, have been selected for the Site (WAC 173-340-720, Table 720-1). The standard point of compliance is throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected per WAC 173-340-720(8)(b).

Groundwater with concentrations of TPH-G above cleanup levels remains at MW01B (see **Enclosure A, Figure 2**). The current groundwater monitoring network also includes MW05A and MW09. At this time, MW05A and MW09 should not be eliminated from the sampling network despite a lack of detections of Site COCs in either of these wells since 2018. Both wells are needed to monitor for possible rebound of Site COC concentrations downgradient of MW01B due to the variability of groundwater flow directions at the Site.

Ecology understands that additional in-situ chemical treatment is planned near MW01B to further reduce concentrations of TPH-G. Quarterly groundwater monitoring is needed for a sufficient number of consecutive quarters at the Site, to confirm the efficacy of additional in-situ chemical treatment of groundwater and monitor for any potential rebound of Site COCs.

Please include groundwater contours on figures showing monitoring results in addition to the rose diagram provided in the *December 2021 CSM*.

- **Vapor Intrusion Evaluation.**

Review of historical groundwater and soil analytical data indicates that concentrations of TPH-G and benzene in soil and groundwater do not pose a vapor intrusion threat on the Site or at adjacent properties. This assumption is based on the recommended vertical separation distance described

in Ecology's Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Revised March 2022[4], and the Environmental Protection Agency's (EPA) Technical Guide for Addressing Petroleum Vapor Intrusion At Leaking Underground Storage Tank Sites, Dated June 2015[5].

As discussed in the guidances linked above, concentrations of TPH-G and benzene in groundwater on the Site fall below screening levels for a vertical separation distance of 6 feet for buildings on the Property. Since soil with residual non-aqueous phase liquid (NAPL) has been excavated and removed from the Property and depth to groundwater on the site more than 6 feet bgs, the vapor intrusion pathway is not considered at complete at the Site.

- **Terrestrial Ecological Evaluation.**

Ecology appreciates your completion of a Terrestrial Ecological Evaluation (TEE) for the Site. The Site qualifies for an exclusion from the TEE process based on its location more than 500 feet away from undeveloped land. Based on the results of the TEE process, the MTCA Method A cleanup levels for unrestricted use are appropriate for the Site (WAC 173-340-740, Table 740-1).

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70A.305.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70A.305.170(6).

[4] https://apps.ecology.wa.gov/publications/SummaryPages/1909051.html/SummaryPages/0909047.html
[5] https://nepis.epa.gov/Exe/ZyPDF.cgi/P100MLX1.PDF?Dockey=P100MLX1.PDF

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/vcp. If you have any questions about this opinion, please contact me by phone at (206) 459- 6287 or email at david.unruh@ecy.wa.gov.

Sincerely,

David Unruh
NWRO Toxics Cleanup Program

Enclosures (2): A – Description and Diagrams of the Site
B – Basis for the Opinion: List of Documents

cc: Shira DeGrood, AECOM (Shira.DeGrood@aecom.com)
Joanna Russell, NWCC Investments, Property Owner (joanna@nwcc.us.com)
Sonia Fernández, VCP Coordinator (Sonia.Fernandez@ecy.wa.gov)

Enclosure A

Description and Diagrams of the Site

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site defined as total petroleum hydrocarbons in the gasoline range (TPH-G), benzene, toluene, ethylbenzene and xylenes (BTEX) in soil and groundwater at 401 East College Way in Mount Vernon, Washington (Property; **Figure 1**). The Site was the former location of Gull Industries (Gull) retail gasoline service station #252 from 1978 to 2001. The Property corresponds to Skagit County parcel number P53850 which is 0.217 acre in size.

Area and Property Description: The Property is located at the intersection of East College Way and Riverside Drive. The Property is bordered to the north by commercial properties. The Property is bordered to the east by Mount Vernon Retail, a retail strip center. The Property is bordered to the south by College Way and Mount Vernon Plaza, a shopping center. The Property is bordered to the west by Riverside Drive and a Starbucks coffee shop.

Property History and Current Use: A historical chronology regarding the Property is provided in the table below.

Date	Historical Information
1937	Aerial photograph shows the Property land use as rural residential
1969	Aerial photograph shows a gas station on the Property
1978	Gull purchases Property
1998 & 2001	Aerial photographs show a different gas station from 1969 on Property
2001	Gull sells Property to Tesoro West Coast Company (Tesoro)
2002	Six USTs, associated piping and dispensing equipment and petroleum-contaminated soil removed and disposed of off-Property
2004 to 2015	Aerial photographs show the Property as vacant
2005	Injections of sodium persulfate solution targeting groundwater
2008	Tesoro sells Property to City of Mount Vernon
2011	City of Mount Vernon sells Property to NWCC Investments IX
2012	Injections of sodium persulfate solution and hydrogen peroxide targeting groundwater
2017	Aerial photograph shows current building foot print
2019	Aerial photograph shows current building completed

The UST removal report dated January 10, 2003 indicated the presence of two earlier gas stations on the Property based on observations made during UST removal. Historical records indicate the operation of a Hubble service station with USTs in the southwest corner of the Property and a Standard Oil service station with USTs in the central portion of the Property.

Six gasoline underground storage tanks (USTs) located at the former Gull gas station #252 included four 12,000-gallon gasoline tanks; also a 500-gallon UST and a 300-gallon UST with unknown contents. These six USTs associated piping and fuel dispensing equipment and islands were all excavated and removed from the Property in 2002 when 5,588 tons of petroleum-contaminated soil were also excavated and disposed of off-Property. In 2008, the Property was sold to the City of Mount Vernon. The current use of the Property is a retail store (Vern Fonk Insurance/Cricket Wireless) with a 1,954 square-foot, one-story building constructed in 2016 during redevelopment of the Property.

Sources of Contamination: Known sources of contamination on the Property include six former USTs, associated piping and fuel-dispensing equipment in four pump islands (**Figure 2**). Additional sources may be associated with former gasoline stations located on the Property.

Physiographic Setting: The Site is located in the Puget Sound Lowland physiographic region of western Washington, a north-south trending structural and topographic depression that is bordered on its west side by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock, and has been filled to the present day land surface with Pleistocene-aged glacial and nonglacial deposits. The Site is located in the Skagit Valley at an elevation of approximately 20 feet above mean sea level. The Site is located within a meander bend of the Skagit River which flows to the southwest.

Surface/Storm Water System: The closest surface water body to the Site is the Skagit River approximately 0.5 mile southwest of the Property. Storm water runoff on and in the vicinity of the Property disperses via sheet flow to catch basins connected to the City of Mount Vernon storm water collection system.

Ecological Setting: The Site and the surrounding area provide limited terrestrial ecological habitat because it is has been mostly developed with buildings and areas paved with concrete and asphalt. Land use at the Site and surrounding area makes substantial wildlife exposure unlikely.

Geology: The Site is underlain by approximately 3 feet of fill materials overlying alluvial deposits of the Skagit River to a maximum explored depth of 22 feet bgs. The alluvial deposits consist of fine to medium sand, silty fine sand and non-cohesive sandy silt in interbeds ranging in thickness from less than an inch to several feet.

Groundwater: Groundwater occurs within the alluvial deposits under water table conditions at depths of approximately 6 to 8 feet bgs. Due to its location within the meander bend, the Site vicinity is underlain by an approximately east-west trending groundwater flow divide which shifts north or south according to groundwater gradients and interactions with the river. The resulting

groundwater flow directions on the Site are dominantly to the west-northwest with seasonal fluctuation to the northwest, west, and southwest. (**Figure 3**).

Water Supply: Ecology well log database records show no water supply wells in the vicinity of the Site. The City of Mt. Vernon's water supply is from the Judy Reservoir which is located 7 miles northeast of the Site. Judy Reservoir is filled with water that has been diverted from four creeks in an uninhabited, 9-square-mile, forested area in the Cultus Mountain watershed.

Release and Extent of Soil and Groundwater Contamination:

Soil: In 2001, five soil borings were advanced to depths of 18.5 to 21.5 feet bgs and completed as monitoring wells MW-1 through MW-5. One soil sample collected from each boring was analyzed using Washington total petroleum hydrocarbons method (WTPH-HCID). Only one of the five soil samples (MW-1 at 7.5 feet bgs) was further analyzed for TPH, BTEX, lead and methyl-tertiary butyl ether (MTBE). Concentrations of TPH-G and BTEX exceeded Method A cleanup levels.

In 2011, nine soil borings (B01; P01 through P08) were advanced on the Property to a maximum depth of 22 feet bgs. The soil borings were conducted to evaluate the current soil conditions beneath the Property in areas known to contain residual contamination following the 2002 excavation. Soil samples collected from P02 and P07 contained TPH-G above Method A cleanup levels at 16 and 13 feet bgs, respectively. Soil from P02 also contained benzene and total xylenes above Method A at 16 feet bgs.

In 2014, eight soil borings (B101 to B108) were advanced in the west adjoining right-of-way (ROW) in an area that was originally on the Property before road widening occurred in the 1970s. The ROW was expanded again after 2002 to include an extra lane of traffic. Soil collected from 10 feet bgs in B104 contained benzene and ethylbenzene above Method A cleanup levels. Soil samples collected from 10 feet bgs in B107 and B108 contained TPH-G above Method A. Ethylbenzene and total xylenes were also detected above Method A at the same depth in B107.

Three additional borings (B109 to B111; **Figure 4**) were advanced in August 2015 to constrain lateral and vertical extents of contaminated soil and groundwater. Site COCs were not detected above Method A cleanup levels in any of the borings. In September 2016, MW08 was installed across Riverside

Figure 4 shows the locations of soil borings, groundwater monitoring wells, and excavation confirmation samples.

Groundwater: In 2001, five monitoring wells (MW-1 through MW-5) were installed on the Site. Subsequent sampling of the wells in August and December 2001 yielded concentrations of TPH-G up to 33,000 micrograms per liter (µg/L) and benzene up to 5,200 µg/L. Toluene and xylenes were

also detected at concentrations exceeding Method A cleanup levels. The highest concentrations of TPH-G and benzene were detected in MW-2 and MW-5. Concentrations of TPH-D, MTBE, lead and ethylbenzene were non-detectable or below Method A.

In 2002, monitoring wells MW01 through MW05 were excavated during the interim remedial action described in the section below. Excavated monitoring wells MW01A through MW03A were replaced with monitoring wells MW01A through MW03A; however, MW02A was closer to MW05 than MW02.

Monitoring wells MW01A and IW04 through IW08 were decommissioned on March 3, 2011 following four or more consecutive quarters with detections of TPH-G and BTEX below Method A cleanup levels.

In 2014, soil borings B107, B101 and B102 were completed as monitoring wells MW05A, MW06 and MW07, respectively. Monitoring well MW05A was installed to replace MW05. A grab groundwater sample collected from B109 in 2015 contained TPH-G above the Method A cleanup level. In 2016, monitoring well MW08 was installed approximately 100 feet west of monitoring well MW05A. MW02A and MW03A were decommissioned on October 24, 2016 following four or more consecutive quarters with results for TPH-G and BTEX below Method A cleanup levels.

In 2017, three Site monitoring wells (MW01B, MW06 and MW07) with casings that had been previously lowered and covered with pea gravel during redevelopment were located. Monitoring wells MW09 and MW10 were installed at that time in order to further evaluate groundwater quality in the northwest portion of the Property. Injection wells IW01, IW02, and IW09 were decommissioned on January 13, 2017 following four or more consecutive quarters with results for TPH-G and BTEX below Method A cleanup levels.

Interim Actions

A 2002 interim remedial action included the removal of six USTs, associated piping and fuel dispensing pump islands and approximately 5,288 tons of petroleum-contaminated soil. The UST and contaminated soil removal generated an approximately 70- by 30-foot excavation between 15 and 16 feet deep. Approximately 3,000 gallons of contaminated water was pumped from the excavation and removed from the Site.

Confirmation soil samples collected in the removal indicated that the contamination exceeding Method A cleanup levels remained at or near the Property line in all sidewalls of the excavation (**Figure 4**). Soil in the northwest corner of the Property was not fully excavated due to the slope of the excavation and proximity of the Property line. The soil in that part of the Site contained the highest concentrations of TPH-G (up to 16,000 mg/kg) and benzene (up to 160 mg/kg).

The UST removal report concluded that residual petroleum-contaminated soil along the north, east, south and west sidewalls was inaccessible without undermining the structural integrity of the buildings on the north and east sides of East College Way and Riverside Drive along the south and west sides of the Property, respectively.

Following removal of the petroleum-contaminated soil, the floor of the excavation was lined with a 2- to 3-foot-thick layer of 4- to 6-inch-diameter quarry spalls over which an oxygen-releasing compound (ORC) was applied. The quarry spalls and ORC were covered with geotechnical filter fabric (Typar™) and the excavation was backfilled with compacted pit-run material.

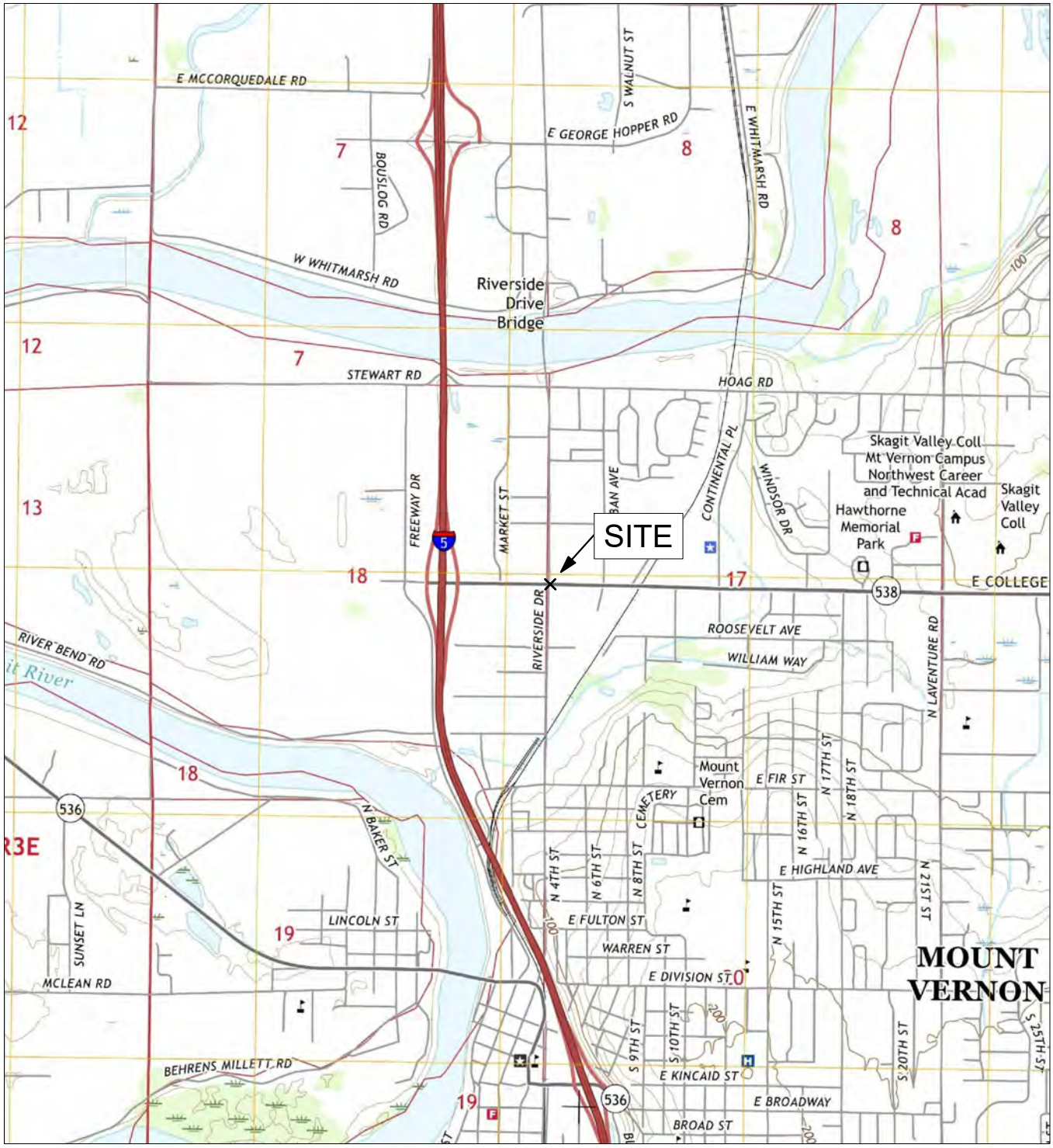
Following the removal of USTs and contaminated soil on the Property, Ecology issued the Site a No Further Action Letter for soils on the Site in 2003. Continued groundwater monitoring was recommended to confirm the cleanup was protective of groundwater.

In 2004 and 2005, four in-situ chemical oxidation events were conducted in an effort to reduce concentrations of TPH-G and BTEX in Site soil and groundwater. In 2005, nine injection wells (IW01 through IW09; **Figure 3**) with 5-foot-long screens were installed to depths of 13 to 14 feet bgs in the northeast and northwest corners of the Property. In December 2005, three injection events were conducted using the injection wells and monitoring wells MW01B and MW03A. A total of 880 gallons of sodium persulfate solution was injected over three events.

In 2012, injections of sodium persulfate and hydrogen peroxide were conducted using temporary driven wells near monitoring well MW01B and injection well IW09. Following the injections, groundwater samples indicated that TPH-G
concentrations temporarily declined but rebounded to pre-2012 levels in samples collected the following year.

In June 2018, a colloidal activated carbon (CAC) injection pilot test was conducted using MW05A and MW09 as test wells. The two wells were selected because groundwater collected from these wells had concentrations of TPH-G above the Method A cleanup level. Push-probe injection points were installed upgradient of MW05A and MW09. A single push-probe was advanced approximately 3 feet southeast of MW09 (**Figure 2**). It was not possible to install additional planned injection points due to underground utilities near MW09.

In April 2019, additional CAC injections occurred at the Site. Seven push-probe injection points were advanced southeast, upgradient of MW01B (PB01 to 04; **Figure 2**). Five injection points were advanced between MW01B and MW09 (PB05 to 08). Four push-probe borings were advanced on the Property in a north-south trending line to the southeast of MW05A. Batch injections of the CAC slurry mix were completed at 1-foot intervals between 8 and 13 feet bgs.



MOUNT VERNON QUADRANGLE, WASHINGTON-SKAGIT CO., 7.5-MINUTE SERIES USGS 2017

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1000 0 1000 2000

SCALE IN FEET

AECOM

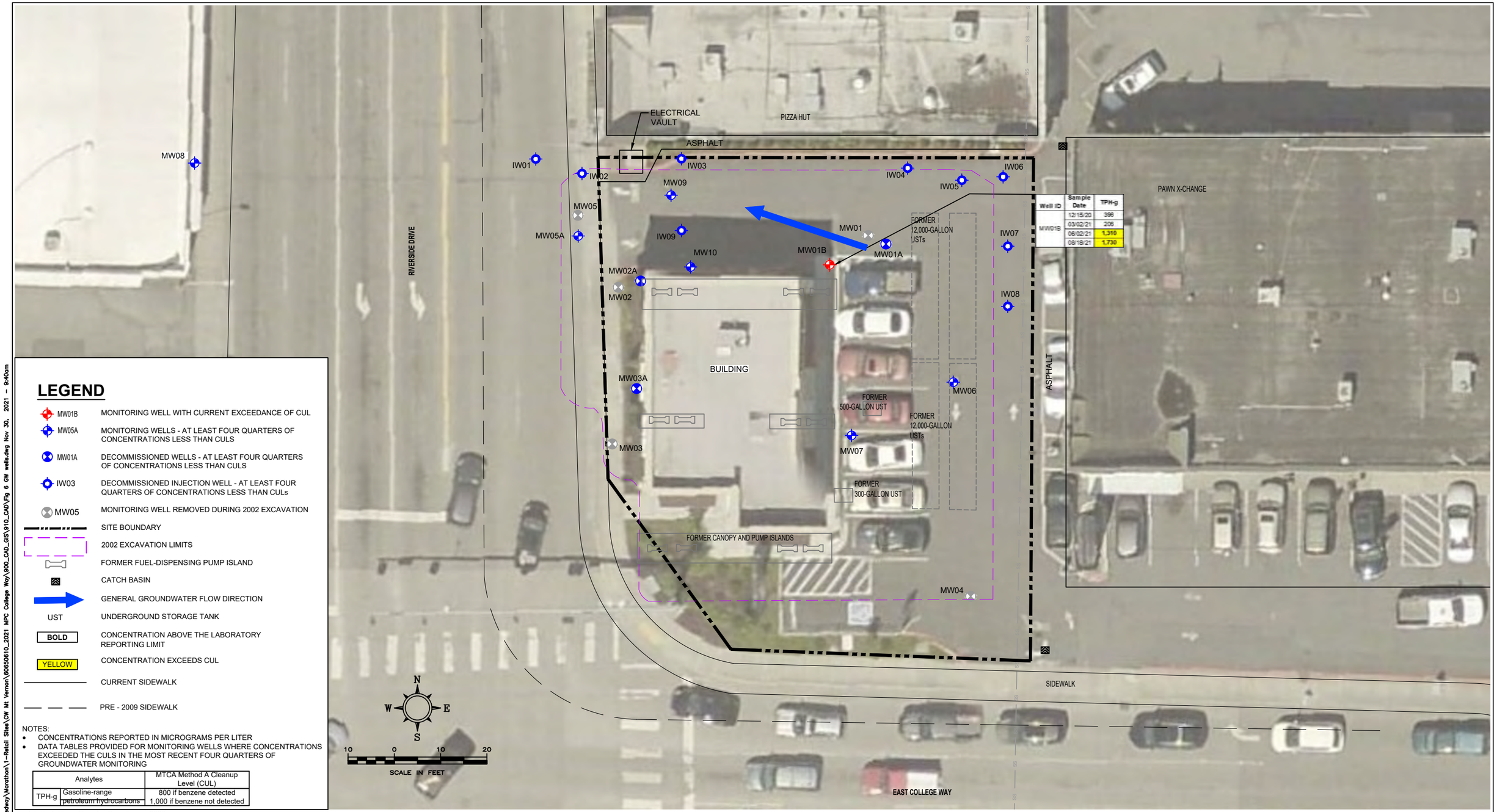
SITE LOCATION MAP

FORMER TESORO FACILITY NO. 62172
401 E COLLEGE WAY
MOUNT VERNON, WASHINGTON

FIGURE 1

Enclosure A Figure 1

C:\Users\Bivolarul\AECOM\GDS GIS Services - GIS CAD PROJECTS\DCS AMERICAS\WESTERN REGION\TESORO\College Way Site\2.work\EDITS_20211027\Fig 1 Site Location Map_27october21.dwg Oct 27, 2021 - 8:51pm



Well ID	Sample Date	TPH-g
MW01B	12/15/20	396
	03/02/21	205
	06/02/21	1,310
	08/18/21	1,730

LEGEND

MW01B	MONITORING WELL WITH CURRENT EXCEEDANCE OF CUL
MW05A	MONITORING WELLS - AT LEAST FOUR QUARTERS OF CONCENTRATIONS LESS THAN CULS
MW01A	DECOMMISSIONED WELLS - AT LEAST FOUR QUARTERS OF CONCENTRATIONS LESS THAN CULS
IW03	DECOMMISSIONED INJECTION WELL - AT LEAST FOUR QUARTERS OF CONCENTRATIONS LESS THAN CULs
MW05	MONITORING WELL REMOVED DURING 2002 EXCAVATION
	SITE BOUNDARY
	2002 EXCAVATION LIMITS
	FORMER FUEL-DISPENSING PUMP ISLAND
	CATCH BASIN
	GENERAL GROUNDWATER FLOW DIRECTION
UST	UNDERGROUND STORAGE TANK
BOLD	CONCENTRATION ABOVE THE LABORATORY REPORTING LIMIT
YELLOW	CONCENTRATION EXCEEDS CUL
	CURRENT SIDEWALK
	PRE - 2009 SIDEWALK

NOTES:
- CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER
- DATA TABLES PROVIDED FOR MONITORING WELLS WHERE CONCENTRATIONS EXCEEDED THE CULS IN THE MOST RECENT FOUR QUARTERS OF GROUNDWATER MONITORING

Analytes		MTCA Method A Cleanup Level (CUL)
TPH-g	Gasoline-range petroleum hydrocarbons	800 if benzene detected 1,000 if benzene not detected

Aerial: Esri, Here, Garmin, OpenStreets 2020

L:\DCS\projects\PNW_Marathon & Speedway\Marathon\1-Retail Sites\CW Mt Vernon\60650610_2021 MPC College Way\900_CAD_GIS\910_CAD\Fig 6 GW wells.dwg Nov 30, 2021 - 9:40am

CURRENT (2020-2021) GROUNDWATER EXCEEDANCES

FORMER TESORO FACILITY NO. 62172
401 EAST COLLEGE WAY
MOUNT VERNON, WASHINGTON

FIGURE 6

Enclosure A Figure 2

6/26/2019

P:\0271 TESORO\0271-004 OLD MT VERNON - COLLEGE WAY #62172\TECHNICAL\CAD\2019Q2\0271-004_2019Q2_GW.DWG

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW05A	09/06/18	<100	<1	<1	<1	<3
	11/30/18	<100	<1	<1	<1	<3
	02/27/19	<100	<1	<1	<1	<3
	06/06/19	<100	<1	<1	<1	<3

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
IW01	07/26/16	<50	<2.0	<2.0	<3.0	<5.0
	10/11/16	--	--	--	--	--
	01/10/17	<50	<2.0	<2.0	<3.0	<5.0
	01/13/17	DECOMMISSIONED				

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
IW02	07/26/16	<50	<2.0	<2.0	<3.0	<5.0
	10/12/16	2,000	<2.0	<2.0	15	13
	01/10/17	<50	<2.0	<2.0	<3.0	<5.0
	01/13/17	DECOMMISSIONED				

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW08	09/06/18	<100	<1	<1	<1	<3
	11/30/18	<100	<1	<1	<1	<3
	02/27/19	<100	<1	<1	<1	<3
	06/06/19	<100	<1	<1	<1	<3

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW09	09/06/18	<100	<1	<1	<1	<3
	11/30/18	<100	<1	<1	<1	<3
	02/27/19	<100	<1	<1	<1	<3
	06/06/19	<100	<1	<1	<1	<3

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW02A	04/15/16	<50	<2.0	<2.0	<3.0	<5.0
	07/26/16	<50	<2.0	<2.0	<3.0	<5.0
	10/11/16	<50	<2.0	<2.0	<3.0	<5.0
	10/24/16	DECOMMISSIONED				

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW10	09/06/18	110	<1	1.6	1.4	<3
	11/30/18	120	<1	1.4	1.2	<3
	02/27/19	130	<1	1.6	1.2	<3
	06/06/19	110	<1	1.2	1.0	<3

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW01B	09/06/18	920	1.7	<1	11	9.9
	11/30/18	710	1.8	5.2	4.1	7.5
	02/27/19	1,300	1.7	<1	14	13
	06/06/19	1,500	<1	<1	13	14

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
IW09	07/26/16	95	<2.0	<2.0	<3.0	<5.0
	10/12/16	120	<2.0	<2.0	<3.0	<5.0
	01/10/17	160	<2.0	<2.0	<3.0	<5.0
	01/13/17	DECOMMISSIONED				

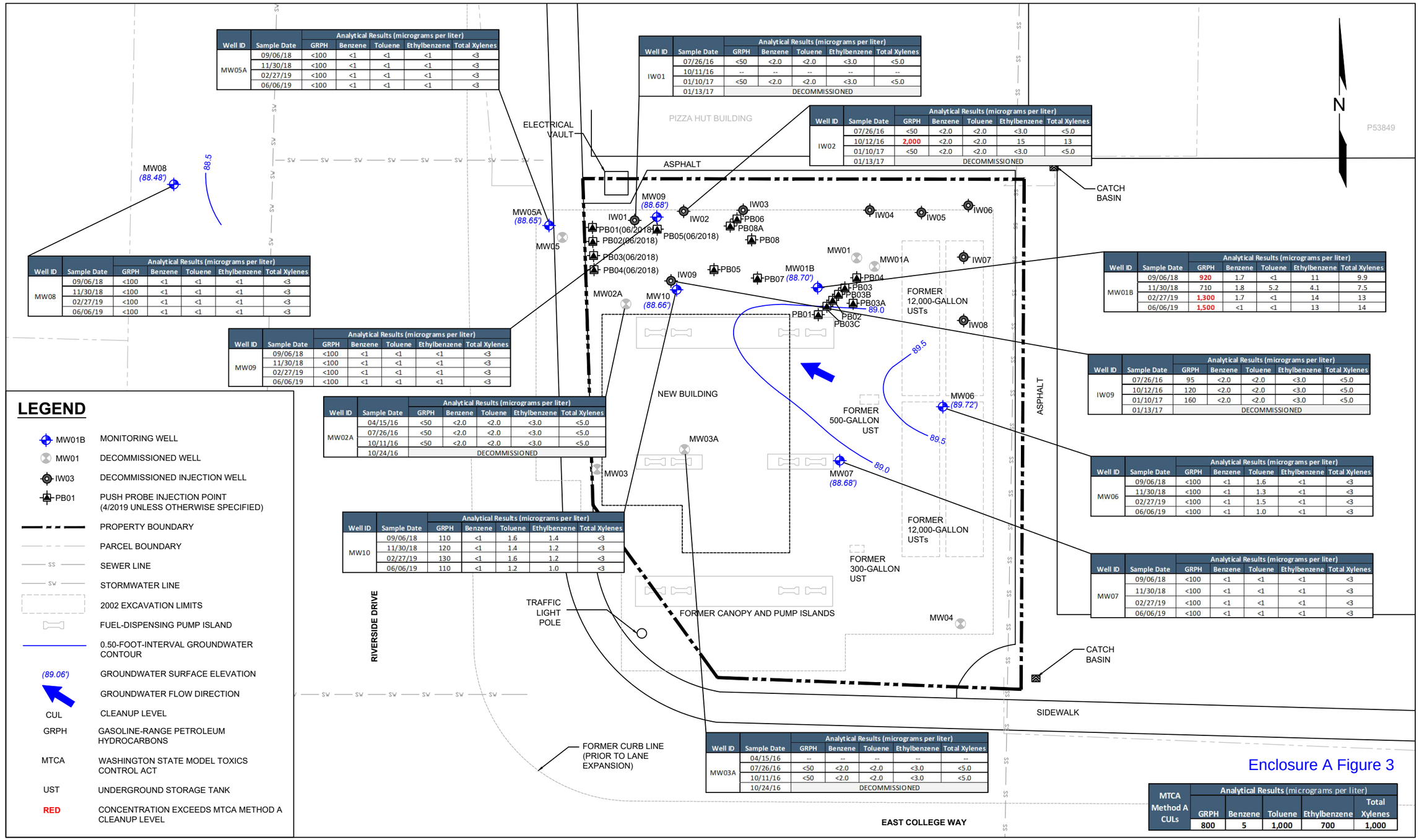
Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW06	09/06/18	<100	<1	1.6	<1	<3
	11/30/18	<100	<1	1.3	<1	<3
	02/27/19	<100	<1	1.5	<1	<3
	06/06/19	<100	<1	1.0	<1	<3

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW07	09/06/18	<100	<1	<1	<1	<3
	11/30/18	<100	<1	<1	<1	<3
	02/27/19	<100	<1	<1	<1	<3
	06/06/19	<100	<1	<1	<1	<3

Well ID	Sample Date	Analytical Results (micrograms per liter)				
		GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW03A	04/15/16	--	--	--	--	--
	07/26/16	<50	<2.0	<2.0	<3.0	<5.0
	10/11/16	<50	<2.0	<2.0	<3.0	<5.0
	10/24/16	DECOMMISSIONED				

LEGEND

- MW01B — MONITORING WELL
- MW01 — DECOMMISSIONED WELL
- IW03 — DECOMMISSIONED INJECTION WELL
- PB01 — PUSH PROBE INJECTION POINT (4/2019 UNLESS OTHERWISE SPECIFIED)
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SS — SEWER LINE
- SW — STORMWATER LINE
- 2002 EXCAVATION LIMITS
- FUEL-DISPENSING PUMP ISLAND
- 0.50-FOOT-INTERVAL GROUNDWATER CONTOUR
- (89.06') — GROUNDWATER SURFACE ELEVATION
- GROUNDWATER FLOW DIRECTION
- CUL — CLEANUP LEVEL
- GRPH — GASOLINE-RANGE PETROLEUM HYDROCARBONS
- MTCA — WASHINGTON STATE MODEL TOXICS CONTROL ACT
- UST — UNDERGROUND STORAGE TANK
- RED — CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVEL



Enclosure A Figure 3

MTCA Method A CULs	Analytical Results (micrograms per liter)				
	GRPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
	800	5	1,000	700	1,000

SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

DATE: 06/25/19
DRAWN BY: CED
CHECKED BY: CER
CAD FILE: 0271-004_2019Q2_GW

PROJECT NAME: TESORO FACILITY NO. 62172
PROJECT NUMBER: 0271-004
STREET ADDRESS: 401 EAST COLLEGE WAY
CITY, STATE: MOUNT VERNON, WASHINGTON

REGION:

0 10 20 40
APPROXIMATE SCALE IN FEET

FIGURE 2
GROUNDWATER CONTOUR MAP AND ANALYTICAL RESULTS
(JUNE 6, 2019)

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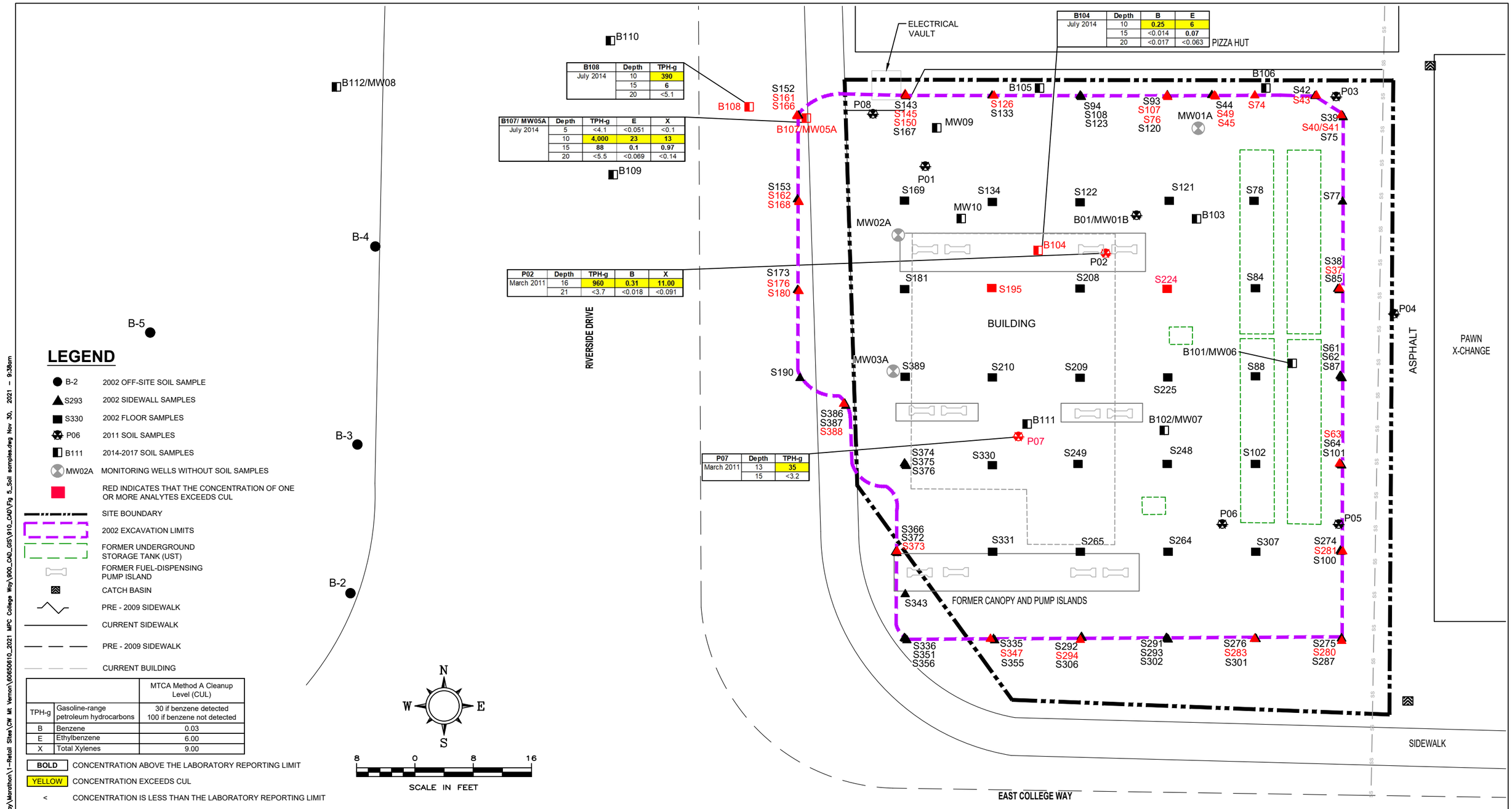

LEGEND

- B-2 — 2002 OFF-SITE SOIL SAMPLE
- S293 — 2002 SIDEWALL SAMPLES
- S330 — 2002 FLOOR SAMPLES
- P06 — 2011 SOIL SAMPLES
- B111 — 2014-2017 SOIL SAMPLES
- MW02A — MONITORING WELLS WITHOUT SOIL SAMPLES
- RED INDICATES THAT THE CONCENTRATION OF ONE OR MORE ANALYTES EXCEEDS CUL
- SITE BOUNDARY
- 2002 EXCAVATION LIMITS
- FORMER UNDERGROUND STORAGE TANK (UST)
- FORMER FUEL-DISPENSING PUMP ISLAND
- CATCH BASIN
- PRE - 2009 SIDEWALK
- CURRENT SIDEWALK
- PRE - 2009 SIDEWALK
- CURRENT BUILDING

		MTCA Method A Cleanup Level (CUL)
TPH-g	Gasoline-range petroleum hydrocarbons	30 if benzene detected 100 if benzene not detected
B	Benzene	0.03
E	Ethylbenzene	6.00
X	Total Xylenes	9.00

BOLD CONCENTRATION ABOVE THE LABORATORY REPORTING LIMIT

YELLOW CONCENTRATION EXCEEDS CUL

< CONCENTRATION IS LESS THAN THE LABORATORY REPORTING LIMIT

NOTES:
- BORINGS B-1 AND B-6 LOCATED NORTH OF SITE, NOT SHOWN IN FIGURE
- CONCENTRATIONS REPORTED IN MILLIGRAMS PER KILOGRAM

EXTENT OF FORMER EXCEEDANCES IN SOIL

FORMER TESORO FACILITY NO. 62172
401 EAST COLLEGE WAY
MOUNT VERNON, WASHINGTON

AECOM

FIGURE 5

Enclosure A Figure 4

L:\DCS_projects\PNW_Marathon & Speedway\Marathon\1-Retail Sites\CW Mt Vernon\60650610_2021 MPC College Way\600_CAD_GIS\910_CAD\Fig 5_Soil samples.dwg Nov 30, 2021 - 9:38am

Enclosure B
Basis for the Opinion:
List of Documents

1. AECOM, *Fourth Quarter 2021 Groundwater Monitoring Report, Former Tesoro Facility No. 62172, 401 E. College Way, Mount Vernon, Washington*, January 24, 2022.

2. AECOM, *Updated Conceptual Site Model, Former Tesoro Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, December 9, 2021.

3. Department of Ecology (Ecology), *Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the Following Hazardous Waste Site: Tesoro 62172, 401 E. College Way, Mount Vernon, WA, Facility/Site ID No. 69264124, Cleanup Site ID 6524, VCP Project No. NW2419*, June 24, 2020.

4. AECOM, *First Quarter 2020 Groundwater Monitoring Report, Speedway Store No. 2172 (Former Tesoro Facility No. 62172), 401 East College Way, Mount Vernon, Washington*, March 30, 2020.

5. SoundEarth Strategies, *Second Quarter 2019 Groundwater Monitoring Report, Tesoro Refining and Marketing Company, Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, July 31, 2019.

6. SoundEarth Strategies, *Activated Carbon Injection Pilot Test Report, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, January 21, 2019.

7. SoundEarth Strategies, *Fourth Quarter 2018 Groundwater Monitoring Report, Tesoro Refining and Marketing Company, Facility No. 62172, 401 East College Way, Mount Vernon, Washington,* January 2, 2019.

8. SoundEarth Strategies, *Work Plan, Tesoro Refining and Marketing Company Facility No. 62172 Activated Carbon Injection Pilot Test, Second Quarter 2018*, April 5, 2018.

9. SoundEarth Strategies, *Fourth Quarter 2017 Groundwater Monitoring and Well Installation Report, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, January 12, 2018.

10. SoundEarth Strategies, *Third Quarter 2017 Groundwater Monitoring and Well Installation Report, Tesoro Refining and Marketing Company Facility 62172, 401 East College Way, Mount Vernon, Washington*, December 13, 2017.

11. SoundEarth Strategies, *Fourth Quarter 2016 Groundwater Monitoring, Well Installation and Well Decommissioning Report, Tesoro Refining and Marketing Company Facility No, 62172, 401 East College Way, Mount Vernon, Washington*, December 30, 2016.

12. SoundEarth Strategies, *Fourth Quarter 2015 Groundwater Monitoring Report, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, January 8, 2016.

13. SoundEarth Strategies, *Fourth Quarter 2014 Groundwater Monitoring Report, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, January 12, 2015.

14. SoundEarth Strategies, *Summary of Supplemental Investigation, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, October 17, 2014.

15. SoundEarth Strategies, *Summary of Subsurface Investigation, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington,* July 21, 2011.

16. SoundEarth Strategies, *Groundwater Monitoring and Hydrogen Peroxide Treatment, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, June 25, 2006.

17. Ecology, *No Further Action for Soils for Voluntary Cleanup at Tesoro Service Station #62172/Former Gull Station #262 at 401 East College Way, Mount Vernon, Washington*, June 5, 2003.

18. Sound Environmental Strategies Corporation, *UST Decommissioning/Remediation Project Report, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington*, January 10, 2003.

19. Sound Environmental Strategies Corporation, *2001/2002 Quarterly Groundwater Monitoring Report, Tesoro Refining and Marketing Company Facility No. 62172, 401 East College Way, Mount Vernon, Washington,* January 16, 2002.

20. Camp Dresser & McKee, Inc., *Letter Report for Off-Site Investigation for Gull Station #262, 401 East College Way, Mount Vernon, Washington*, August 26, 2002.

21. Camp Dresser & McKee, Inc., *Current Site Assessment, Index No. 3, Gull Site #262, 401 East College Way, Mount Vernon, Washington*, August 30, 2001.