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DEPARTMENT OF ECOLOGY

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February 2, 2022

Jennifer Sedlachek
ExxonMobil Environmental and Property Solutions
4096 Piedmont Ave #194
Oakland, CA 94611
(jennifer.c.sedlachek@exxonmobil.com)

Re: No Further Action at the following Site:

- **Site Name:** Mobil 19183
- **Site Address:** 801 Alabama Street, Bellingham, Washington 98225
- **Facility/Site No.:** 19131
- **VCP Project No.:** NW2895
- **Cleanup Site ID No.:** 11811

Dear Jennifer Sedlachek:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the **Mobil 19183** 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

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70A.305 RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

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 releases:

- Total petroleum hydrocarbons in the gasoline (TPH-G), diesel (TPH-D) and heavy oil (TPH-O) ranges; benzene, toluene, ethylbenzene, and xylenes (BTEX); and lead into the Soil.
- TPH-G, TPH-D, TPH-O, BTEX, and lead into the 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 associated with this Site is 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 format from the Site [webpage¹](#). The complete records are stored in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our [Public Records Request page²](#), 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 of the Cleanup

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

¹ <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=11811>

² <https://ecology.wa.gov/publicrecords>

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

2. Establishment of cleanup standards.

a. Cleanup Levels

Ecology has determined the cleanup levels and points of compliance you established for the Site **meet** the substantive requirements of MTCA.

Soil

The Site does not meet the MTCA definition of an industrial property; therefore, soil cleanup levels suitable for unrestricted land uses are appropriate.

The Site meets the initial Terrestrial Ecological Evaluation exclusion criteria (WAC 173-340-7491(1)(c)(i)). There are less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any part of the Site. Cleanup levels protective of terrestrial ecological receptors are not necessary for this Site.

Because groundwater meets Method A cleanup levels throughout the Property, Method B soil cleanup levels can be used for the protection of direct contact. The Site is eligible for use of Groundwater Model Remedy 5, in accordance with [*Model Remedies for Sites with Petroleum Impacts to Groundwater Ecology Publication No. 1-09-057, Revised December 2017*](#)³. Soil remaining on the Site contains TPH-G at a concentration of 200 milligrams per kilogram (mg/kg), which is below the generic TPH cleanup level of 1,500 mg/kg. Soil is protective of the direct contact and groundwater leaching pathways.

Groundwater

Groundwater was impacted by the contaminant sources on the Site. Cleanup levels were set for groundwater based on its highest beneficial use as a potential drinking water source. MTCA Method A cleanup levels were proposed for groundwater at this Site. Ecology concurs for this exposure pathway.

Air

³ <https://apps.ecology.wa.gov/publications/SummaryPages/1609057.html>

Air cleanup levels would normally need to be established for TPH-G and the associated volatile compounds, especially benzene, given the potential for vapor intrusion. However, accessible soil containing detectable hydrocarbon concentrations above cleanup levels was removed as part of the cleanup action at this Site or has since degraded based on confirmation soil sampling. Benzene concentrations in Site groundwater have been below the Method B vapor intrusion cancer screening level since 2017.

The threat of vapor intrusion was therefore effectively eliminated. Ecology does not consider it necessary to establish air cleanup levels or an air point of compliance for this Site.

b. Points of Compliance

Soil

The point of compliance for soil is throughout the Site. This point of compliance is protective of both direct contact and leaching to groundwater.

Groundwater

The point of compliance for groundwater is throughout the Site, from the uppermost level of the unsaturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site **meets** the substantive requirements of MTCA.

The cleanup action selected for this Site was excavation of approximately 2,100 tons of contaminated soil and removal of 4,600 gallons of contaminated groundwater in two separate areas, followed by off-Site disposal at a permitted facility.

4. Cleanup.

Ecology has determined the cleanup you performed **meets** the cleanup standards established for the Site.

As noted above, the Site cleanup meets the requirements for Groundwater Model Remedy 5. Therefore, a Feasibility Study and Disproportionate Cost Analysis are not

required to document the remedy selection. The requirements of Groundwater Model Remedy 5 are:

- Petroleum hydrocarbons consisting of gasoline, middle distillates/oils, or heavy fuels/oils and their constituents are the only contaminants present in soil and groundwater.
- Emergency or interim actions are not required due to the lower risk nature of the Site.
- The Site meets the criteria for an exclusion from conducting a Terrestrial Ecological Evaluation (TEE).
- The primary remedy consists of source removal, including free product and contaminated soil, to the greatest extent practicable.
- The Site has not caused impacts above the practical quantitation limit (PQL) to any water supply well used for drinking water purposes.
- Soil meets Method B cleanup levels throughout the Site.
- The 1,500 mg/kg generic TPH soil cleanup level is appropriate.
- Groundwater meets Method A cleanup levels throughout the Site.
- A conditional point of compliance for groundwater has not been applied at the Site.
- An empirical demonstration has been applied at the Site.

In December 2019, eight confirmation soil borings (KLF-01 through KLF-08) were sited to confirm that contamination left in place on the Site is no longer above cleanup levels. Soil samples from the borings were collected adjacent to and at the same depths as excavation confirmation samples, and from one monitoring well borehole that previously exceeded Method A cleanup levels. The soil samples were analyzed selectively for petroleum hydrocarbons, BTEX, and VOCs, based on the previous exceedances.

Contaminants were not detectable in samples collected from the confirmation soil borings, with the exception of the sample collected in KLF-6 at 5 feet bgs, which contained only TPH-G at a concentration of 200 mg/kg,

exceeding Method A (30 mg/kg). Soil boring KLF-6 was advanced less than 5 feet northwest of monitoring well MW3, where the depth to groundwater has ranged from approximately 2 to 5 feet below the ground surface. TPH-G has not been detected in MW3 in multiple groundwater sampling events conducted since 2012. Ecology concludes that soil in this location is protective of groundwater, which is consistent with Ecology guidance for empirical demonstrations.

Quarterly groundwater monitoring initiated in September 2020 in Site monitoring wells MW2, MW3, and MW4 resulted in four consecutive quarters below Method A cleanup levels as of June 2021.

Decommissioning of Site Resource Protection Wells

When resource protection wells associated with the Site are no longer to be used for their intended purposes, these wells must be decommissioned in accordance with WAC 173-160-460 (<http://apps.leg.wa.gov/wac/default.aspx?cite=173-160-460>). Per WAC 173-160-410 (<http://apps.leg.wa.gov/wac/default.aspx?cite=173-160-410>), resource protection wells include monitoring wells, observation wells, piezometers, spill response wells, remediation wells, environmental investigation wells, vapor extraction wells, ground source heat pump borings, grounding wells, and instrumentation wells.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List and Leaking Underground Storage Tank List.

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).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#NW2895).

For more information about the VCP and the cleanup process, please visit our [VCP webpage](#)⁴. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (206) 594-0121 or by email at michael.warfel@ecy.wa.gov.

Sincerely,



Michael R. Warfel, VCP Site Manager
Toxics Cleanup Program, NWRO

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

cc: Wesley Willow, Kleinfelder, Inc., (wwillow@kleinfelder.com)
 Mark Aginsky, (aginsky@hotmail.com)
 Tra Thai, Ecology, (tra.thai@ecy.wa.gov)
 Sonia Fernandez, Ecology, (sonia.fernandez@ecy.wa.gov)

⁴ <http://www.ecy.wa.gov/vcp>

Enclosure A

Site Description and Diagrams

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 is defined as total petroleum hydrocarbons in the gasoline (TPH-G), diesel (TPH-D), and heavy oil (TPH-O) ranges; benzene, toluene, ethylbenzene, and xylenes (BTEX); and lead in soil and groundwater at 801 Alabama Street in Bellingham, Washington (the Property; **Figure 1**). The Property corresponds to Whatcom County parcel number 3803195540950000 which is 0.2 acres in size.

Area and Property Description: The Property is located in the northeastern corner of the intersection of Alabama and James Streets (**Figure 2**). Land use in the vicinity of the Property consists of commercial and residential purposes. To the north of the Property are Vision Plus and Cummins Orthodontics; to the east are residential properties and King Street; to the south are Alabama Street and a commercial property; and to the west are James Street and West Edge Credit Union.

Property History and Current Use: The Property was the location of a Mobil-branded gasoline station that was in operation from 1956 to 1976. The Mobil station had two gasoline underground storage tanks (USTs) with 4,000- and 6,000-gallon capacities that were reportedly pumped out when the station closed in 1976 (see **Figure 2**). However, no tank decommissioning records are available for the two gasoline USTs. After 1976, the Property was redeveloped as a parking lot for an adjacent commercial building. The Property is currently used as a parking lot for the Vision Plus clinic, which is on the adjoining property to the north.

Sources of Contamination: The potential sources of contamination on the Property are the two former gasoline USTs described above, and associated fuel pump islands and piping. In addition, a 300-gallon waste oil tank and a 500-gallon heating oil tank were also previously present on the Property. All of these USTs were reportedly installed in 1956 when Mobil service station 19183 was constructed. The waste oil UST and delineated contaminated soil were removed in 2011. No official documentation exists on removal date of the two gasoline USTs but the former tank pit was empty when it was excavated in 2012. The heating oil UST and a sump were removed in 2013 (**Figure 3**).

Physiographic Setting: Western Whatcom County and the Bellingham area are part of the Fraser-Whatcom Lowlands, broadly characterized as a north-south trending structural and topographic depression bounded to the west by the complex tectonic setting of the San Juan and Canadian Gulf and Vancouver Islands, and to the east by the Cascade uplift. The Fraser-Whatcom Lowlands typically feature extensive sequences of consolidated and unconsolidated sediments, typically dominated near the surface by geologically recent glacial deposition.

The elevation of the Property is approximately 110 feet above mean sea level (msl). The land surface of the Property slopes to the south towards Whatcom Creek.

Surface/Storm Water System: The surface water body closest to the Site is Whatcom Creek, located approximately 0.6 mile south of the Site. Storm water runoff on and in the vicinity of the Property disperses via sheet flow to catch basins connected to the City of Bellingham's storm water collection system.

Ecological Setting: Most of the Property is paved with concrete and asphalt. The Site area is heavily developed with commercial properties, arterial streets, and Interstate 5. There is little terrestrial habitat in the immediate vicinity of the Site that would tend to attract wildlife.

Geology: The Site is underlain by a thin layer of Quaternary alluvium and colluvium which overlie Eocene-aged bedrock consisting of the Bellingham Bay Member of the Chuckanut Formation. The Bellingham Bay Member is a thick, strongly-folded series of sandstone, mudstone, and conglomerate beds with locally present coal.

Soil borings drilled on the Site encountered silt and sandy silt to approximately 15 feet below ground surface (bgs). A silty clay underlies the silt to a depth of at least 35 feet bgs, the maximum depth explored (soil boring B2). Bedrock has not been encountered in any borings advanced to date on the Site.

Groundwater: Groundwater first occurs as a perched zone in the Quaternary sediments at depths of 7 to 11 feet bgs. Site boring logs indicate that a shallow silty clay layer occurs at 15 to 20 feet bgs, which acts as an aquitard as shallow perched groundwater occurs above the silty clay. Based on borings drilled on the Property, the aquitard is at least 25 feet thick.

The groundwater flow direction in the perched zone, based on several events of groundwater elevation measurements, is to the west-southwest. Groundwater elevation contours for data collected on November 18, 2019 are shown in **Figure 4**.

Water Supply: The Site area is supplied with drinking water by the City of Bellingham. The source of water is from Lake Whatcom which draws from rainwater in the Lake Whatcom watershed. Water is also obtained from meltwater of the Deming Glacier on Mount Baker, which flows to the middle fork of the Nooksack River and is occasionally diverted to Lake Whatcom.

Release and Extent of Soil and Groundwater Contamination: Soil and groundwater investigations have been conducted on the Site since 2011. Subsurface exploration locations and soil excavation areas are shown on **Figure 3**.

Soil: In March 2011, a surface geophysical survey using ground penetrating radar (GPR) was conducted in an effort to identify subsurface features related to former gasoline service station operations. Five geophysical anomalies were identified as potential USTs; three on the west side of the Property and two on the east side.

Soil borings B1 through B23 were also advanced in 2011 to a maximum depth of 8 feet. The GPR anomalies on the west side of the Property were investigated with soil borings B3, B4, B5, and B23 to maximum depth of 5 feet bgs; no USTs were encountered. The anomalies on the east side of the Property were not investigated with soil borings due to subsurface concrete obstructions or temporal constraints.

Selected soil samples collected from the borings were analyzed for petroleum hydrocarbons and BTEX. TPH-G and BTEX were detected at concentrations above cleanup levels in soil samples collected from borings B6, B7, and B22.

In June 2011, an additional GPR survey was conducted to further evaluate the five previously detected geophysical anomalies. In addition, soil borings B24 through B39 were advanced to a maximum depth of 41.5 feet bgs in order to collect soil samples and assess the geophysical anomalies. No USTs were identified.

Six of 24 soil boring samples collected contained concentrations of petroleum hydrocarbons above Method A cleanup levels (TPH-G up to 539 mg/kg and benzene up to 4.09 mg/kg). The highest levels were in soil boring B27, which was completed as monitoring well MW1, a 4-inch diameter well screened from 4 to 19 feet bgs.

Also in August 2011, soil borings B40 through B44 were advanced to a maximum depth of 12 feet bgs; only the soil sample collected in B42 at 5 feet bgs contained TPH-G and benzene above Method A cleanup levels.

In November 2011, the 300-gallon waste oil UST and associated product piping were removed from the Property. Soil surrounding the UST was also removed to an approximate maximum depth of 6 feet bgs. Approximately 22 tons of petroleum-contaminated soil and debris were also excavated and removed from the Property.

Approximately 250 gallons of petroleum-contaminated groundwater were removed from the excavation. Soil samples were collected at the excavation limits. The excavation was backfilled with controlled-density fill and resurfaced with asphalt to match the surrounding grade.

In August 2012, soil borings B45 through B47 were advanced to 20 feet bgs and soil samples were collected. Only the soil sample collected in boring B46 at 5 feet bgs contained TPH-G above the Method A cleanup level. Monitoring wells MW2 through MW4 were installed in the three boreholes, respectively.

Soil samples collected from the UST and piping excavations were analyzed for the following: petroleum hydrocarbons, BTEX, methyl-tert butyl ether (MTBE), ethylene dibromide (EDB), ethylene dichloride (EDC), naphthalene, halogenated volatile organic compounds, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), polychlorinated biphenyls, and RCRA metals. The samples only contained non-detectable levels of petroleum hydrocarbons, with the exception of one bottom sample, T1B1. This sample contained 0.433 mg/kg TPH-G, 715 mg/kg TPH-D, and 2,010 mg/kg TPH-O, which exceeded the Method A cleanup level for TPH-D + TPH-O of 2,000 mg/kg.

In August and September 2013, eastern and western portions of the Site were excavated. A total of 117 confirmation soil samples were analyzed for TPH-G, TPH-D, TPH-O, BTEX, and lead.

The western excavation area along the western and southern boundaries of the Site was approximately 2,800 square feet in size and extended to depths of 10 to 17 feet bgs. Soil samples collected from the excavation indicated that soil containing TPH-G and BTEX at concentrations exceeding Method A cleanup levels remained inside the south and west Property lines.

The eastern excavation was 760 square feet in area on the eastern perimeter of the Site and extended to depths ranging from 2.5 to 8.5 feet bgs. During the excavation, a sump, a 300-gallon UST, and associated piping were discovered, exposed, and removed from the Property. Soil samples were collected from the bottom and sidewalls of the excavation. None of the confirmation samples contained detectable petroleum hydrocarbons or BTEX; however, one sidewall sample and the bottom samples contained detectable PAHs at concentrations below the Method A cleanup level.

In September 2013, a geosynthetic clay liner was installed vertically along the western and southern walls of the western excavation, to aid in limiting groundwater flow to and from that portion of the Site. The liner consisted of reinforced geosynthetic clay with two carrier geotextiles surrounding a layer of sodium bentonite. The western excavation was then backfilled with 2½-inch-minus rock, followed by approximately 2 feet of 5/8-inch crushed rock which was compacted using a roller to a tested 95% compaction. The eastern excavation was backfilled with 5/8-inch diameter crushed rock which was compacted to 95%.

In October 2015, soil sampling was conducted to obtain analytical data for potential Method B soil cleanup level calculations. Soil borings B48 through B51 were advanced to a depth of 5 feet bgs, except B51, which was advanced to 2.5 feet bgs. Soil samples were analyzed for TPH-G, TPH-D, TPH-O, BTEX, cPAHs, and total lead. In addition, selected soil samples were analyzed for EDB, EDC, halogenated volatile organic compounds (HVOCs), MTBE, naphthalene, volatile petroleum hydrocarbons, and extractable petroleum hydrocarbons.

Soil samples collected at depths of 2.5 and 5 feet bgs from the borings were analyzed for petroleum hydrocarbons, BTEX, and lead. Soil sample S-5-B49 contained TPH-G and benzene at concentrations of 1,010 and 0.218 mg/kg, respectively. Soil sample S-2.5-B50 contained TPH-G at a concentration of 580 mg/kg.

In December 2019, eight confirmation soil borings (KLF-01 through KLF-08) were advanced to a maximum depth of 12 feet bgs. The borings were pre-cleared by hand auger to 4 feet bgs and completed using hollow stem auger drilling methods. The borings were sited to confirm that contamination left in place on the Site is no longer above cleanup levels.

Soil samples from the borings were collected adjacent to and at the same depths as excavation confirmation samples, and from one monitoring well borehole that exceeded Method A cleanup levels. The soil samples were analyzed selectively for petroleum hydrocarbons, BTEX, PAHs and VOCs, based on the previous exceedances.

Contaminants detected in the confirmation soil samples were below Method A cleanup levels, with the exception of the sample collected in confirmation boring KLF-06 at 5 feet bgs, which contained 200 mg/kg of TPH-G, exceeding the Method A cleanup level of 30 mg/kg.

Groundwater: In March 2011, three temporary monitoring wells were installed in soil borings B6, B7, and B22, from which groundwater samples were collected and analyzed. All of the groundwater samples contained petroleum hydrocarbons above MTCA Method A cleanup levels, as described below. Concentrations of TPH-G in the temporary wells ranged from 1,370 to 1,810 micrograms per liter ($\mu\text{g/L}$), TPH-D ranged from 1,110 to 4,680 $\mu\text{g/L}$, TPH-O ranged from 244 to 667 $\mu\text{g/L}$, and benzene ranged from 2.14 to 312 $\mu\text{g/L}$. Total lead was detected at concentrations up to 60.7 $\mu\text{g/L}$, which exceeded the Method A cleanup level (15 $\mu\text{g/L}$). Dissolved lead was detected at a concentration of 25.3 $\mu\text{g/L}$ in one of the samples, exceeding the Method A cleanup level (15 $\mu\text{g/L}$).

In June 2011, monitoring well MW1 was installed in soil boring B27 (just northeast of soil boring B7), screened from 4 to 19 feet bgs. MW1 was sampled in November 2011 and contained: 40,700 µg/L TPH-G; 3,770 µg/L TPH-D; 3,230 µg/L benzene; 1,160 µg/L toluene; 1,550 µg/L ethylbenzene; 5,230 µg/L total xylenes; and 13.4 µg/L dissolved lead.

In August 2012, soil borings B45 through B47 were completed as monitoring wells MW2, MW3, and MW4, respectively, screened from 4.5 to 19.5 feet bgs or 5 to 20 feet bgs.

Periodic groundwater sampling in monitoring wells MW1 through MW4 was conducted at the Site from August 2012 to June 2013.

Between 2011 and 2013, concentrations of the above-listed contaminants decreased in MW1. MW1 was last sampled in June 2013 and contained: 8,110 µg/L TPH-G; 1,410 µg/L TPH-D; 1,120 µg/L benzene; 31.6 µg/L toluene; 175 µg/L ethylbenzene; 5,230 µg/L total xylenes; and non-detectable levels of lead. Monitoring well MW1 was decommissioned in August 2013 prior to a remedial excavation on the Site.

In MW2 through MW4, no TPH-G was detected at concentrations exceeding the Method A cleanup level. However, TPH-D and TPH-O were detected above Method A cleanup levels in the March and June 2013 sampling events. In 2012 and 2013, benzene was detected in MW2 and MW3 at concentrations above the Method A cleanup level.

In October 2014, constant-rate pumping tests were performed at the Site using monitoring wells MW3 and MW4, which were the only wells available on the Site for this type of testing. The pumping tests were conducted to support a non-potability assessment of the uppermost water-bearing zone, a shallow perched layer occurring at approximately 7 to 11 feet bgs.

On October 22, 2014, MW4 was pumped at an approximate rate of 0.25 gallons per minute (gpm) until the well was dry (water level below pump intake at bottom of well) in 17 minutes. The pumping rate was measured using a graduated cylinder and the pump was adjusted as needed to maintain the constant rate. MW4, which is screened from 5 to 20 feet bgs, was pumped at 0.25 gpm to dryness.

On October 23, 2014, the pumping test was repeated using monitoring well MW3. The static water level was 8.58 feet bgs. The well was pumped at a rate of 0.25 gpm and went dry after approximately 8 minutes.

In October, 2015, groundwater samples were collected from on-Site monitoring wells MW3 and MW4, as well as off-Property well MW2. The samples were analyzed for

petroleum hydrocarbons, BTEX, cPAHs, VOCs, EDB, and total and dissolved lead. Although samples from MW2 and MW4 contained petroleum hydrocarbons at concentrations below Method A cleanup levels, benzene was detected in MW3 at a concentration of 8.53 µg/L, exceeding the Method A cleanup level of 5 µg/L.

In 2016, a revised pumping test evaluation was conducted to support the non-potability assessment. Analysis of both extraction and recovery data was completed, using MW3 as the observation well and MW4 as the pumping well. The hydraulic conductivities estimated using the recovery test data were 1 to 2 orders of magnitude higher than those calculated with the pumping test data. This suggested that the potential extraction rates for this water-bearing zone were higher than the 0.25 gpm measured during the pumping tests.

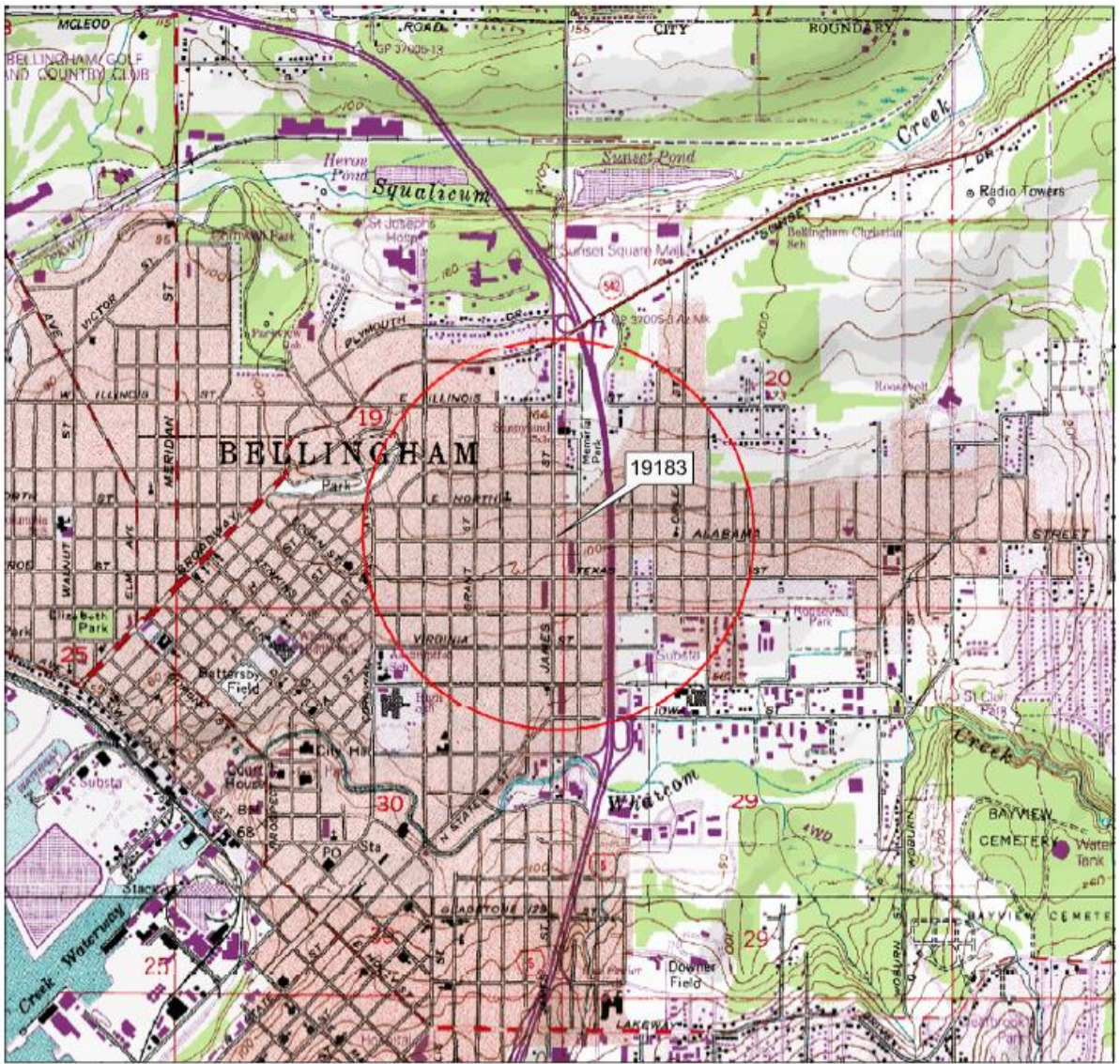
Both MW3 and MW4 are adjacent to the former excavation which was backfilled with compacted materials. MW3 is south of a geosynthetic liner, placed vertically in the south and west walls of the excavation, which extends up to 5 feet below the water table. MW4 is adjacent to the backfilled eastern excavation area. It is unknown what effects these subsurface alterations have on groundwater occurrence near the two monitoring wells used for the non-potability demonstration.

Ecology concluded in a VCP opinion letter dated June 7, 2019 that it is unlikely that groundwater on the Site would be considered non-potable based on the physical and chemical characteristics of the contaminant sources, potential connectivity of the perched groundwater zone with deeper aquifer zones, and other hydrogeological characteristics of the Site.

In December 2019, no groundwater samples were collected from confirmation soil borings KLF-1 through KLF-8.

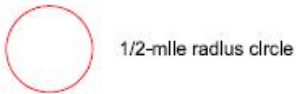
Periodic groundwater monitoring has been conducted on the Site since 2011, with Site contaminant concentrations decreasing to below Method A cleanup levels. Quarterly groundwater monitoring initiated in September 2020 in Site monitoring wells MW2, MW3, and MW4 has resulted in four consecutive quarters below Method A cleanup levels as of June 2021.

Site Diagrams

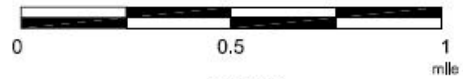


FN 312830001

EXPLANATION



APPROXIMATE SCALE



SOURCE:
Modified from a map
provided by
DeLorme 3-D TopoQuads



FORMER MOBIL STATION 19183
801 Alabama Street
Bellingham, Washington

PROJECT NO.

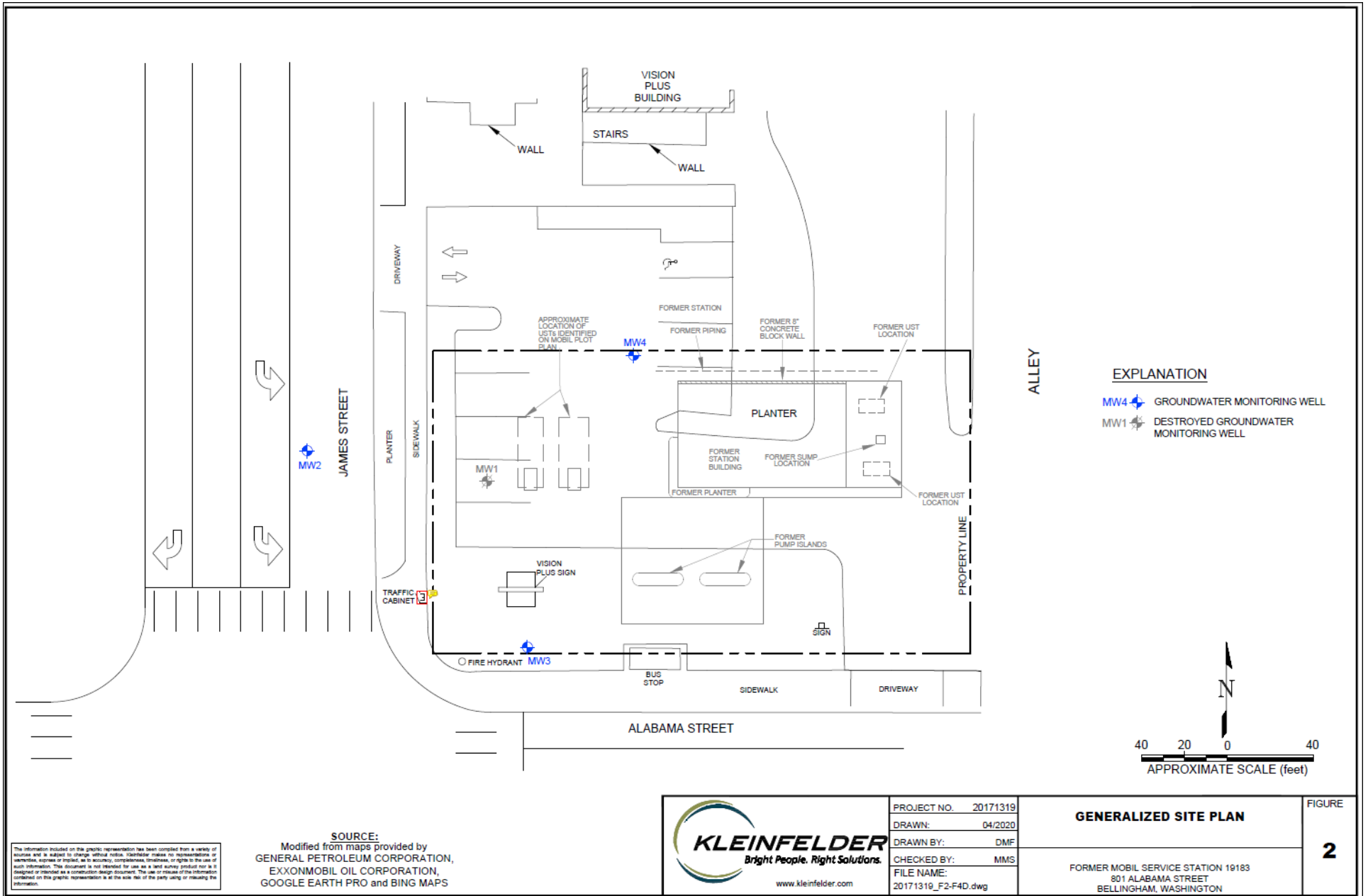
31283

PLATE

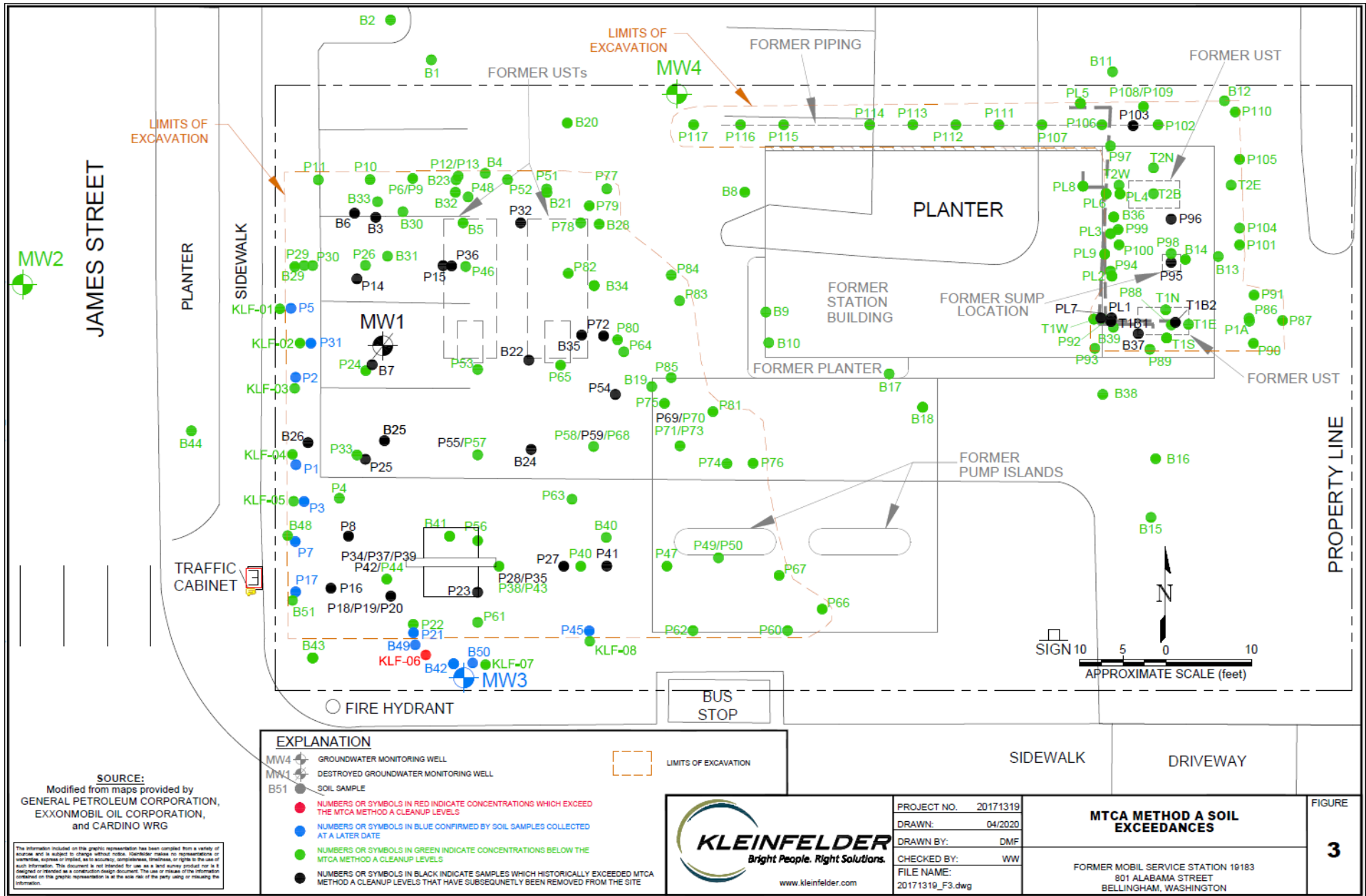
1

KDH; 01/12/11

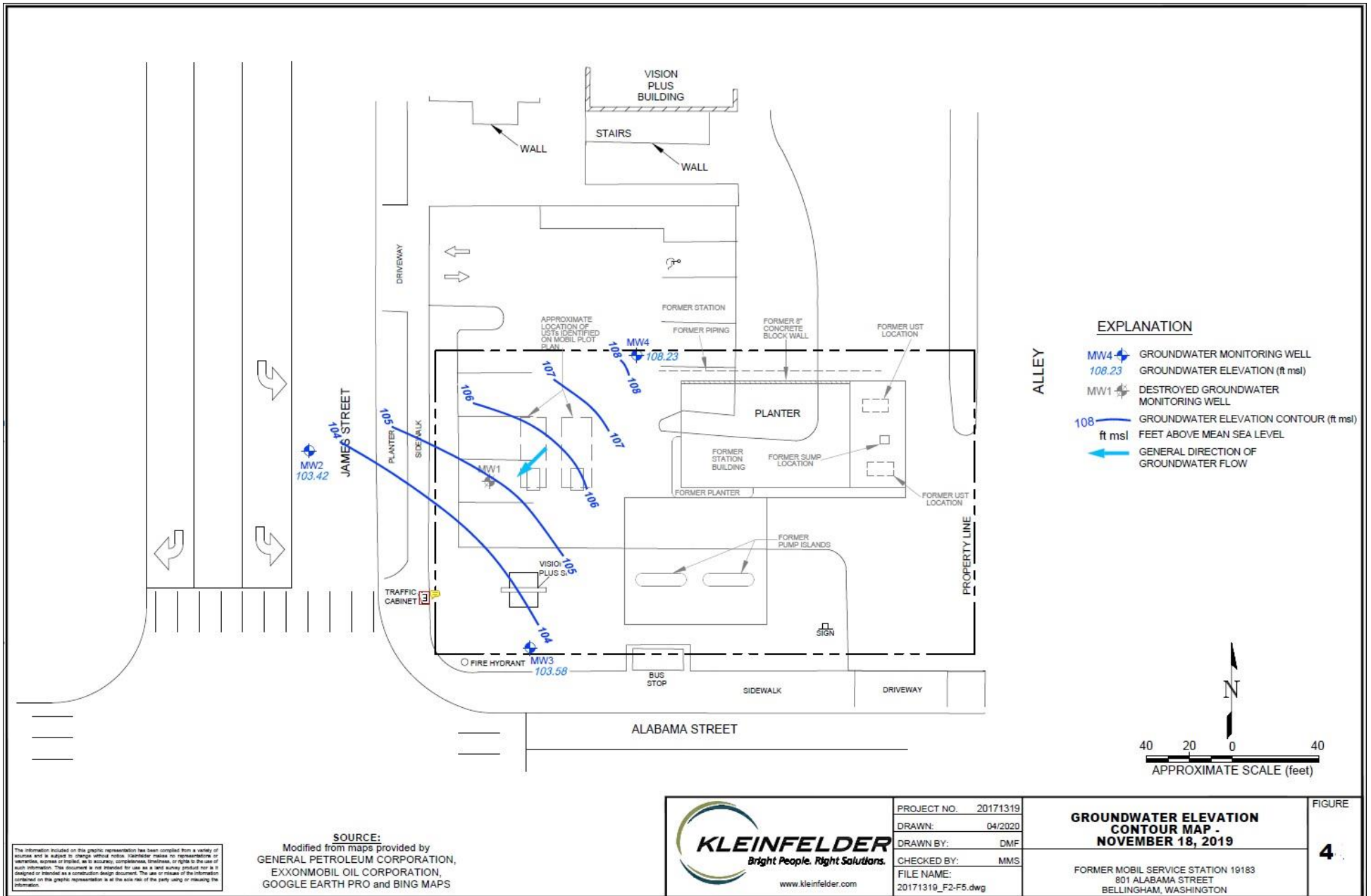
Enclosure A, Figure 1



Enclosure A, Figure 2



Enclosure A, Figure 3



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 GENERAL PETROLEUM CORPORATION,
 EXXONMOBIL OIL CORPORATION,
 GOOGLE EARTH PRO and BING MAPS



PROJECT NO.	20171319
DRAWN:	04/2020
DRAWN BY:	DMF
CHECKED BY:	MMS
FILE NAME:	20171319_F2-F5.dwg

GROUNDWATER ELEVATION CONTOUR MAP - NOVEMBER 18, 2019
FORMER MOBIL SERVICE STATION 19183 801 ALABAMA STREET BELLINGHAM, WASHINGTON

FIGURE
4

Enclosure A, Figure 4

Enclosure B

**Basis for the Opinion:
List of Documents**

1. Kleinfelder, 2021. *Second Quarter 2021 Groundwater Monitoring Report and Request for Case Closure, Former Mobil Service Station 19183, 801 Alabama Street, Bellingham, Washington*. July 15.
2. Department of Ecology (Ecology), 2020. *Opinion on Remedial Action, Mobil 19183, VCP NW2895*. July 29.
3. Kleinfelder, 2020. *Soil and Groundwater Confirmation Sampling Report and Closure Request, Former Mobil Service Station 19183, 801 Alabama Street, Bellingham, Washington*. May 20.
4. Ecology, 2019. *Opinion on Proposed Remedial Action, Mobil 19183, VCP NW2895*. June 7.
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