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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 16, 2016

Ms. Sandi Thompson
Mason County Transportation Cooperative
700 S. First Street
Shelton, WA 98584

Re: Opinion on Proposed Cleanup of the following Site:

- **Site Name:** Mason County Transportation Cooperative
- **Site Address:** 3740 Shelton Springs Road, Shelton, Mason County, WA
- **Facility/Site No.:** 23634752
- **Cleanup Site ID:** 5731
- **VCP Project No.:** SW0579

Dear Ms. Thompson:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Mason County Transportation Cooperative facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Upon completion of the proposed cleanup, will further remedial action likely be necessary to clean up contamination at the Site?

NO. Ecology has determined that, upon completion of your proposed cleanup, no further remedial action will likely be 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 70.105D 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 release:

- Petroleum hydrocarbons and related constituents into the Soil and Groundwater.

Enclosure A includes a detailed description and diagram 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 following documents:

1. Feasibility Study: Evaluation of Cleanup Action Alternatives, PBS Engineering & Environmental (PBS), dated February 29, 2016.
2. Groundwater Monitoring Report, PBS Engineering & Environmental (PBS), dated July 2015.
3. Groundwater Monitoring Report, PBS Engineering & Environmental (PBS), dated March 2015.
4. Groundwater Monitoring Report, PBS Engineering & Environmental (PBS), dated January 2015.
5. Monitoring Well Installation and Groundwater Monitoring Report, PBS Engineering & Environmental (PBS), dated October 2014.
6. Site Monitoring Report, Fall 2009, Mason County Transportation Cooperative, Shelton, Washington, dated January 28, 2010 by PBS Engineering & Environmental (PBS).
7. E-mail from Mr. Scott Rose (Ecology) to Mr. Ulysses Cooley (PBS), RE: Mason County Bus Barn Site, Ecology comments on work plan, dated September 29, 2009.
8. Letter from Mr. Ulysses Cooley (PBS) to Mr. Scott Rose (Ecology), RE: Mason County Transportation Cooperative, Work Plan Addendum, dated September 22, 2009.
9. Letter from Ms. Sandi Thompson (Mason County Transportation Cooperative) to Mr. Scott Rose (Ecology), RE: Mason County Transportation Cooperative, Status Letter, dated June 11, 2009.
10. Letter from Mr. Scott Rose (Ecology) to Ms. Sandi Thompson (Mason County Transportation Cooperative), RE: Further Action Determination, dated October 2, 2007.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

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.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action.

Underground storage tanks (USTs) containing gasoline and diesel fuel were removed from the Site in September 1994 and included two 3,000-gallon gasoline USTs and one 12,000-gallon diesel UST. Mason County removed petroleum contaminated soil (PCS) from the excavation following the removal of the three USTs. Soil samples collected following the removal of the accessible PCS indicated that contamination was still present beneath the pump-island and north of the UST excavation towards the maintenance building (*Enclosure A – Attachment Nos. 2 and 3*).

In response to Ecology Further Action letters from 2007 and 2010 additional soil and groundwater samples were collected to define the aerial extent of PCS and impacts to the groundwater beneath and down-gradient of the Site (*Enclosure A – Attachment No. 4*). The final two groundwater monitoring wells were installed in September 2014, bringing the total to six wells (MW-1 through MW-6).

Four quarterly groundwater sampling events were performed at the Site from September 2014 through July 2015 which demonstrated that groundwater was not being impacted by the PCS left in place after the 1994 UST removal and excavation (*Attachment Nos. 5 and 6*).

Based on the Disproportionate Cost Analysis/Feasibility Study (DCA/FS) and the evaluation of cleanup alternatives Ecology concurs that leaving the inaccessible PCS in place and establishing an Environmental Covenant for the Site (*see Section 3 – Selection of Cleanup Action*).

2. Establishment of cleanup standards.

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

Cleanup Levels

MTCA Method A soil and groundwater cleanup levels for unrestricted land use are being used for the Site.

Points of Compliance

Soil-Direct Contact: For soil cleanup levels based on human exposure via direct contact the point of compliance established under WAC 173-340-740(6)(d).

Ecology has determined these CULs are protective of Human Health and the Environment. Where residual contamination concentrations remain at concentrations greater than the applicable CULs institutional controls will be instituted to protect human health and the environment.

The point of compliance for the groundwater is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that 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.

Cleanup activities conducted to date have included UST removal, the excavation and on-Site treatment of PCS, and natural attenuation for groundwater.

A Feasibility Study/Disproportionate Cost Analysis identified and proposed leaving the PCS in place that was not accessible following the 1994 excavation and removal of the USTs. The Site is currently capped by asphalt, concrete, building structures which act as a barrier to further mobilization of the contaminants. An Environmental Covenant would be required for the property to limit exposure of workers during any future construction activities at the Site.

For your information, the process for placing an EC on the property is outlined below:

1. Conduct a title search to identify all persons holding a prior interest in the real property subject to the covenant. To save time later, you should conduct the search as early in the process as possible. Generally, Ecology will not sign the covenant unless all prior interest holders are willing to sign on as grantors or subordinate their interests. See step 5 below.
2. Draft the covenant using the boilerplate document available on the VCP web site: www.ecy.wa.gov/programs/tcp/vcp/vcp2008/vcpRequirements.html. Please note that any changes to the boilerplate language in the covenant must be approved by the Attorney General's Office.

3. Submit the draft covenant for review and comment to the appropriate land use planning authority in your jurisdiction. When requesting such review, please do the following:
 - Send Ecology a copy of your written request.
 - Provide the authority with Ecology contact information.
 - Request that the authority send Ecology a copy of any written response.

Ecology will not approve the covenant unless the authority has been adequately consulted.

4. Upon completing your consultations with the local land use planning authority, submit the draft covenant to Ecology for review and approval. Unless already submitted, also submit to Ecology any comments provided by the planning authority or, if none were provided, documentation of your consultation.
5. Upon Ecology approval, obtain the signatures of all grantors of the covenant and obtain subordination agreements with any persons holding a prior interest in the real property subject to the covenant who are not signing the covenant as a grantor.
6. Upon obtaining the signatures of the grantors and any necessary subordination agreements, submit the covenant to Ecology for its signature as the grantee.
7. Upon obtaining Ecology's signature, record the covenant in every county where the real property subject to the covenant is located. For detailed recording instructions, please refer to Chapter 65.04 RCW.
8. Upon recording, return the original signed and recorded covenant to Ecology and provide a copy of the recorded covenant to the following persons:
 - Each person that signed the covenant.
 - Each person holding a recorded interest in the real property subject to the covenant.
 - Each person in possession of the real property subject to the covenant at the time the covenant is executed.
 - Each municipality or other unit of local government in which real property subject to the covenant is located.
 - Any other persons Ecology requires.

The copy must be legible and the recording number must be evident.

9. Once Ecology receives the original signed and recorded covenant, and all other remedial actions have been completed, the NFA letter for the Site would be provided to you.

For more information on how to create an environmental covenant, please refer to the Uniform Environmental Covenants Act (UECA), Chapter 64.70 RCW, and WAC 173-340-440 of the MTCA Cleanup Regulation.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards at the Site.

In September 1994, two 3,000-gallon gasoline USTs and one 12,000-gallon diesel UST were excavated and removed from the Site.

Between 600 and 1,000 cubic yards of soil were excavated and stockpiled on Site to be aerated. The soil stockpile was sampled by PBS in November 1995 and again in May 1998, and analyzed for diesel-range petroleum hydrocarbons (TPH-D). Soil samples indicated concentrations below MTCA cleanup levels. At some point in time, the stockpile was spread out and capped with gravel. In October 2009, PBS collected three soil samples from this area for analysis for gasoline-range petroleum hydrocarbons (TPH-G). TPH-G was not detected in any of the samples.

In 1998, a 2,000-gallon waste oil UST was excavated and removed from the Site north of the building. Upon removal of the UST, the tank appeared to be structurally sound and no evidence of contamination was noted. Three confirmation soil samples were collected from the floor, and the east and south sidewalls of the excavation. The samples were analyzed for TPH-D and oil-range petroleum (TPH-O). TPH-D and TPH-O were not detected in any of the samples above the laboratory method detection limits.

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 70.105D.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 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

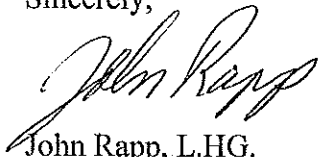
The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

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/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me at (360) 407-6265 or via email at jrap461@ecy.wa.gov.

Sincerely,



John Rapp, L.H.G.
VCP Site Manager
SWRO Toxics Cleanup Program

JR/ksc:SW0579 Mason County Transportation coop likely site NFA

Enclosures (1): A – Description of the Site

By certified mail: (

cc: Megan Nogeire – PBS Engineering & Environmental
Carol Johnston – Ecology
Nicholas Acklam (without enclosures) - Ecology
Matt Alexander (without enclosures) – Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

The Mason County Transportation Coop site is located at 3740 Shelton Springs Road in Shelton, Mason County, Washington. The site is located within Mason County Parcel #420124160000, which comprises 42.53 acres and is owned by School District #309. The site is bounded to the southeast by Shelton Springs Road and to the north by single-family residences. Shelton High School and associated athletic fields are located to the west and south of the site, and vacant, undeveloped land is located east of the site. The site currently consists of a school bus maintenance and fueling facility. The on-site building includes bus maintenance bays, wash bays, and personnel offices. Water inside the maintenance and wash bays is directed to two oil/water separators before going into the sanitary sewer. The fueling area is located south of the building and includes a pump island and USTs. The current USTs at the site include one 12,000-gallon diesel UST and one 8,000-gallon unleaded gasoline UST.

The property was purchased as a vacant lot by the school district in 1984. Shortly thereafter, the school bus maintenance building and fueling facility were constructed. In 1994, two 3,000-gallon gasoline underground storage tanks (USTs) and one 12,000-gallon diesel UST were excavated and removed from the site. Soil and groundwater impacts were noted, and impacted soil was reportedly left in place beneath the pump island and to the north of the excavation. In 1998, a 2,000-gallon waste oil UST was also excavated and removed from the site north of the building.

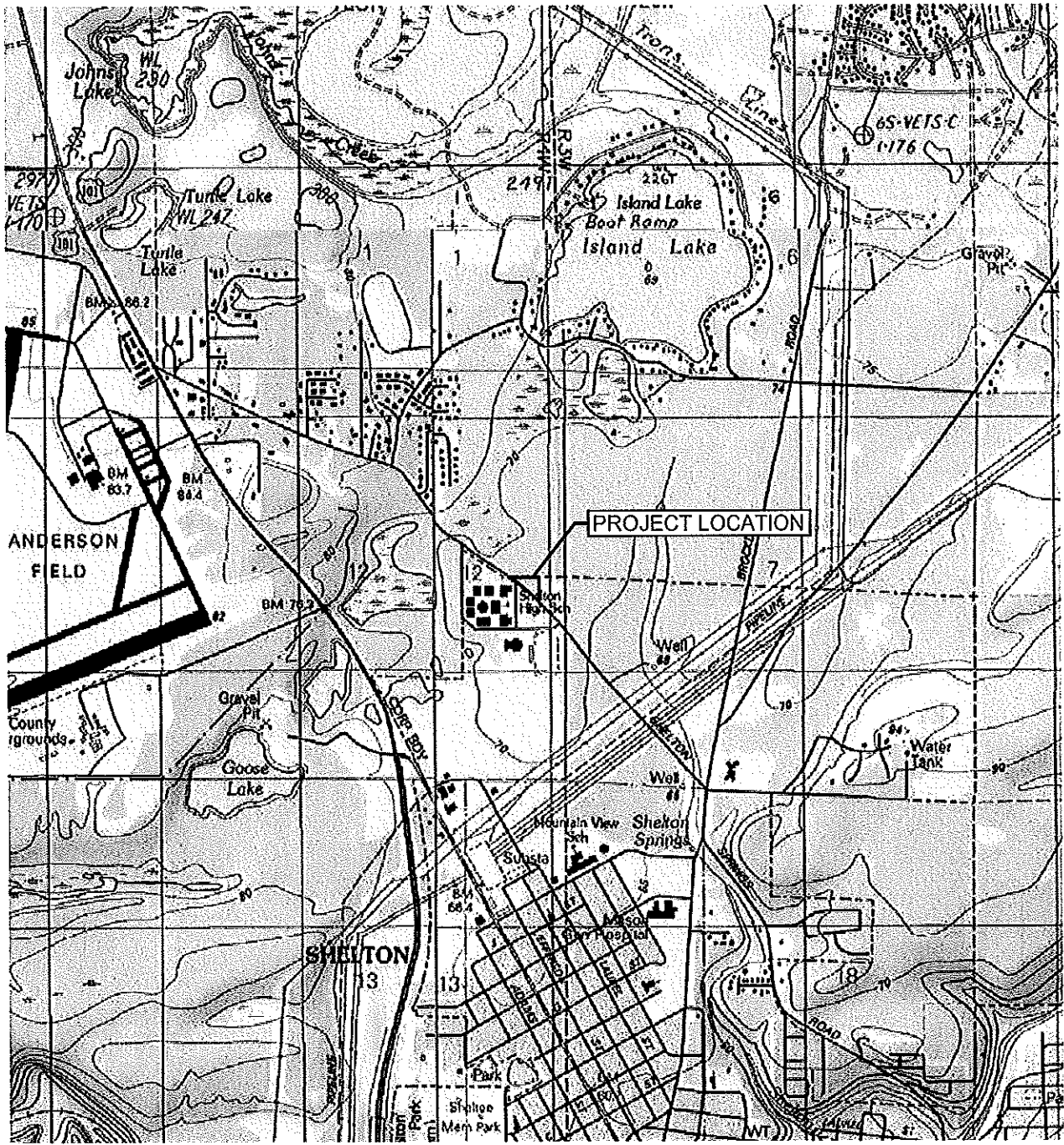
The site area is covered with Vashon recessional outwash deposits, which consist of permeable sand and gravel deposits with some clay and silt. These deposits were encountered in borings advanced on site up to 20 feet below ground surface (bgs). The outwash deposits are underlain by Vashon till, which is a low-permeability unit composed of a dense and poorly sorted mixture of silt, sand, gravel, cobbles, and boulders. Groundwater was encountered beneath the site at 12 feet bgs within sandy gravels. The direction of groundwater flow varies from the southwest to the southeast.

Ms. Sandi Thompson
June 16, 2016
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Site Diagrams

Attachments

1. Site Location Map
2. Site Plan
3. Map of Historic Sample Locations
4. June 28, 2007 Groundwater Contour Map
5. July 2015 Groundwater Contour Map
6. Table - Groundwater Analytical Results (September 2014 through July 2015)



SOURCE: USGS SHELTON, WA QUADRANGLE 1975, PHOTO REVISED 1981.



WASHINGTON



SCALE: 1" = 2,000'

PREPARED FOR: MASON COUNTY TRANSPORTATION COOPERATIVE



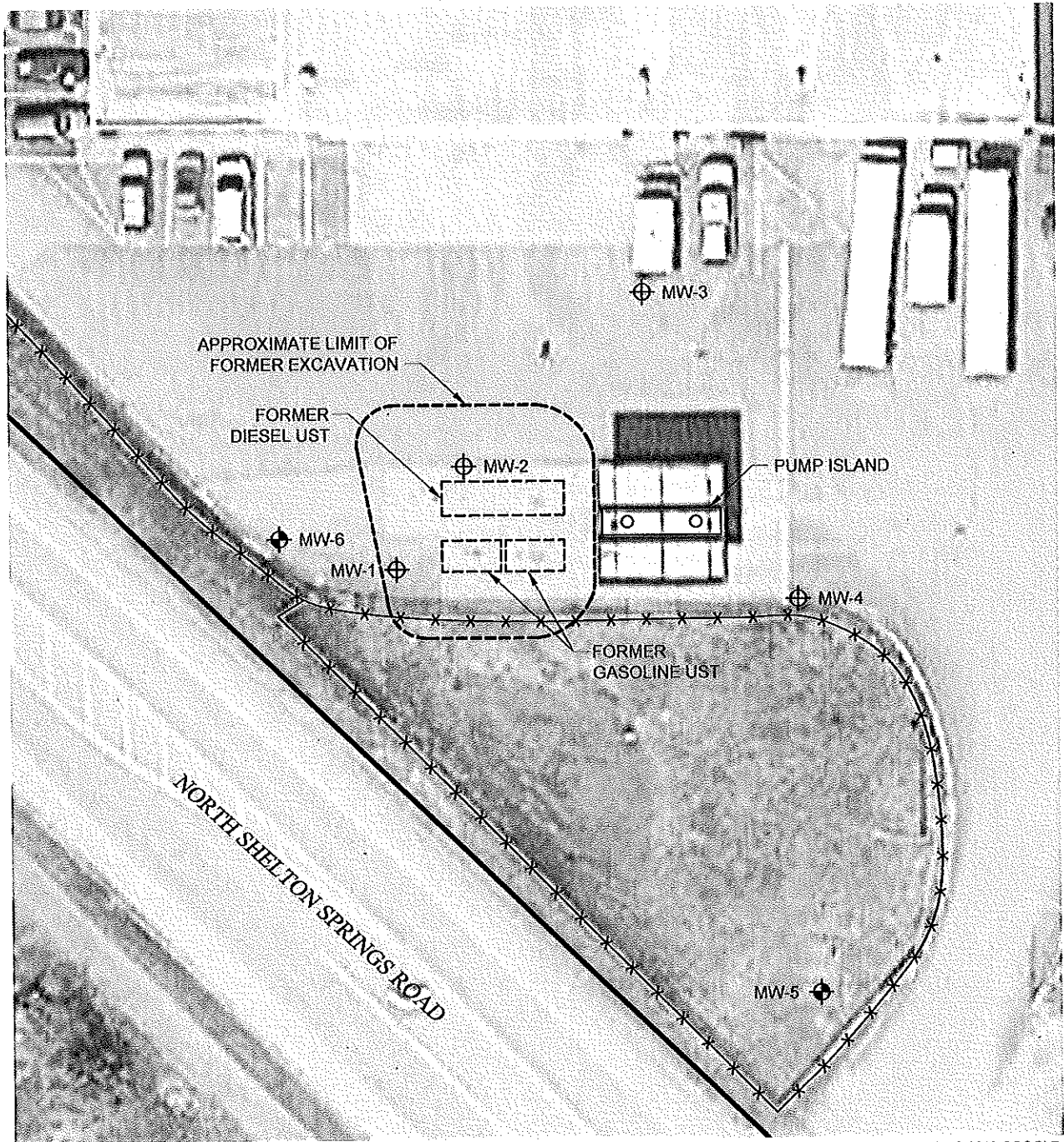
PROJECT #
41271.002

DATE
JAN 2015

VICINITY MAP
3740 SHELTON SPRING ROAD
SHELTON, WASHINGTON



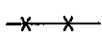
FIGURE

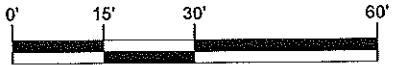
1



SOURCE: © 2011 GOOGLE EARTH PRO, © 2012 GOOGLE


LEGEND

-  MW-5 MONITORING WELL NUMBER AND LOCATION
-  MW-1 EXISTING MONITORING WELL NUMBER AND LOCATION
-  FENCE

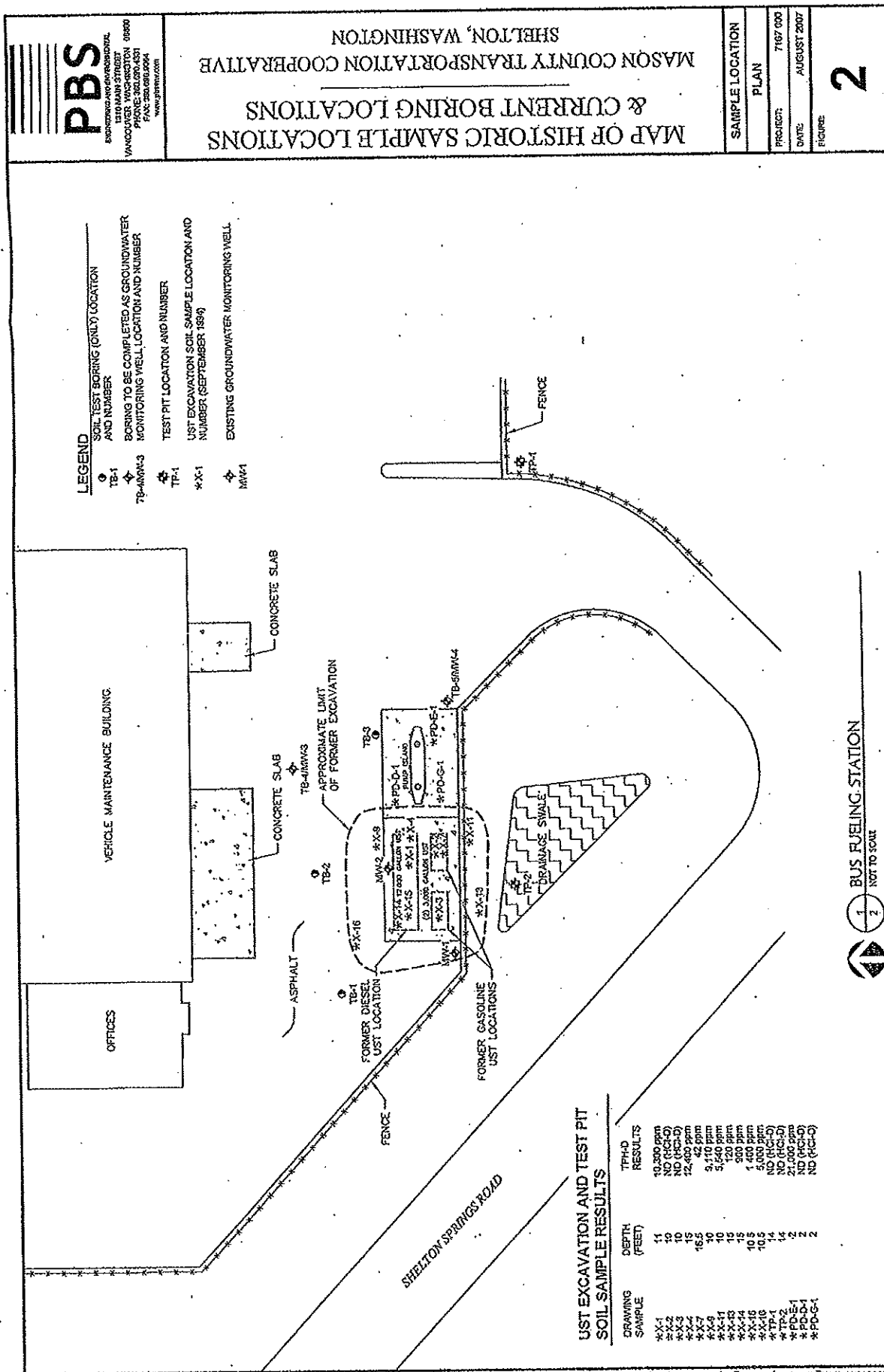


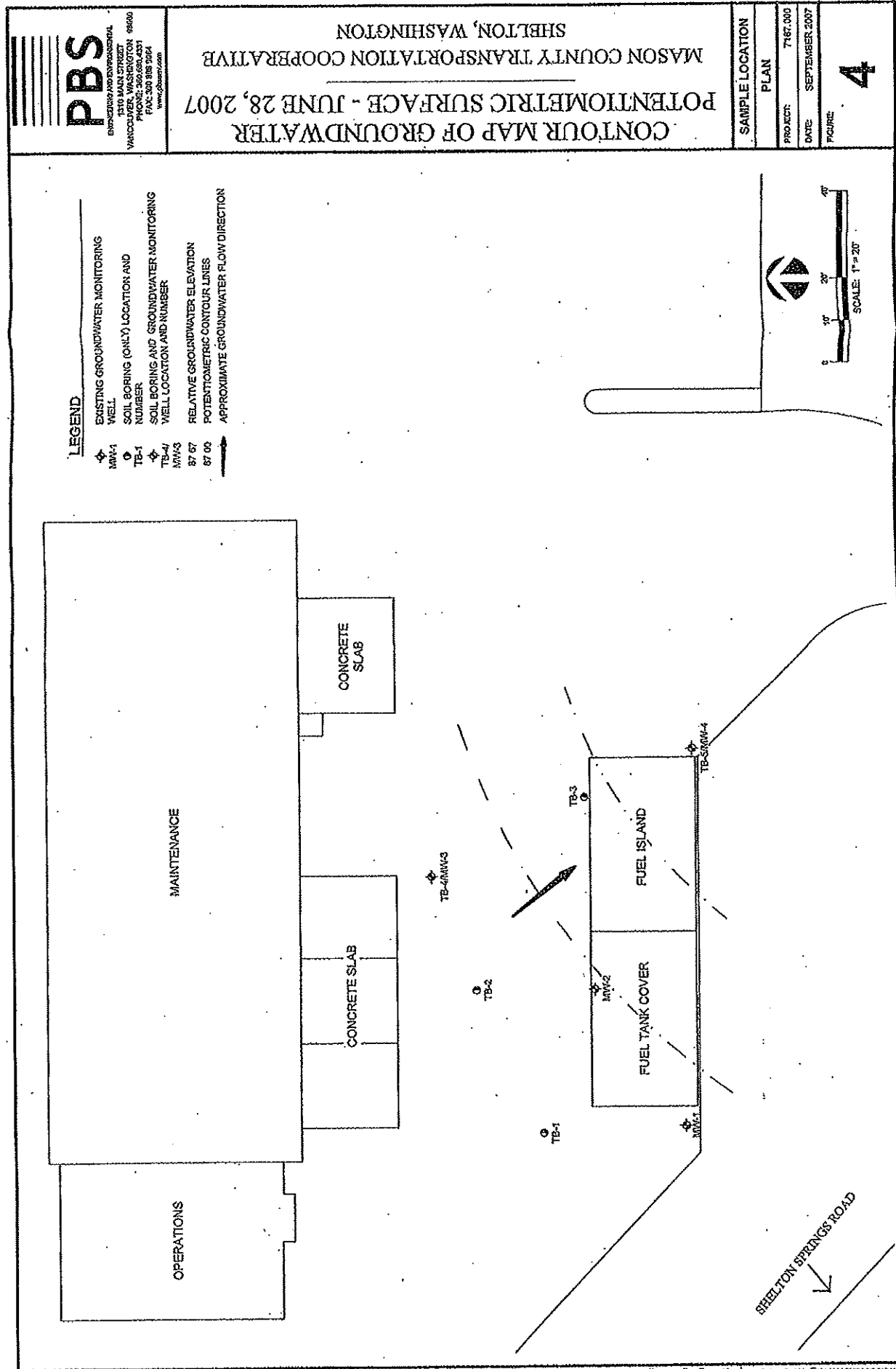
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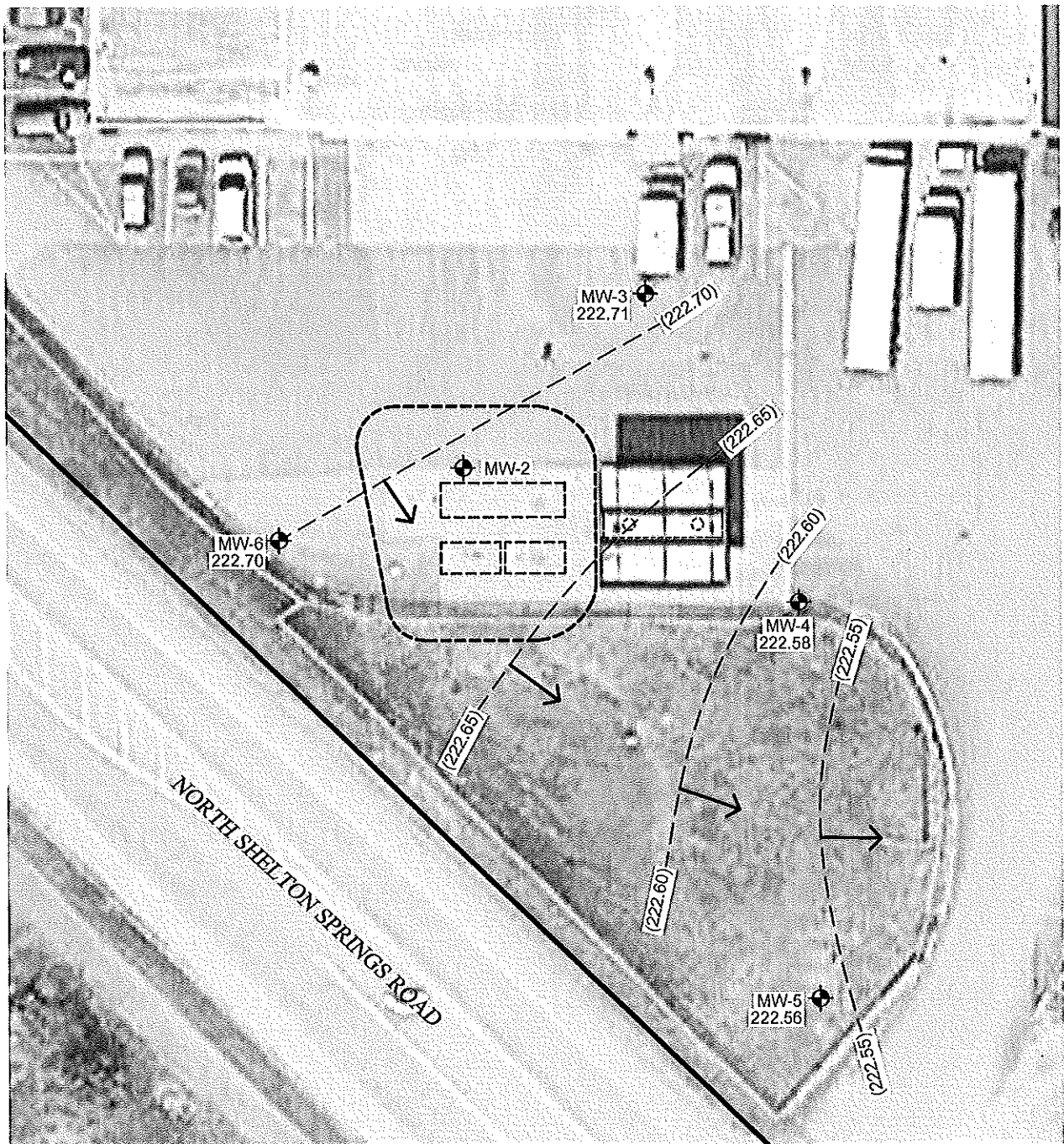
PREPARED FOR: MASON COUNTY TRANSPORTATION COOPERATIVE

	<p>PROJECT # 41271.002</p> <p>DATE JAN 2015</p>	<p>SITE PLAN</p> <p>3740 SHELTON SPRING ROAD SHELTON, WASHINGTON</p>	<p>FIGURE</p> <p>2</p>
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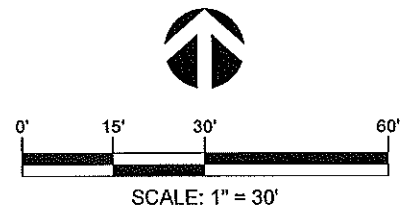


SOURCE: © 2011 GOOGLE EARTH PRO, © 2012 GOOGLE

LEGEND

- ⊕ MW-5 MONITORING WELL NUMBER AND LOCATION
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER CONTOUR
- (222.55) GROUNDWATER ELEVATION (FEET AMSL)

APPROXIMATE HYDRAULIC GRADIENT - 0.002 ft/ft



PREPARED FOR: MASON COUNTY TRANSPORTATION COOPERATIVE

PROJECT #
41271.002DATE
AUG 2015**JULY - GROUNDWATER CONTOUR MAP**3740 SHELTON SPRING ROAD
SHELTON, WASHINGTON

FIGURE

3

TABLE 3 GROUNDWATER ANALYTICAL RESULTS

SITE: Mason County Department of Transportation
PROJECT NO: 41271.002

Criteria		Result ug/L (parts per billion)									
		TPHs				VOCs by EPA method 8260					
		Gx	Dx	Heavy Oil	Benzene	Toluene	Ethyl Benzene	Xylene	B(a)P	Naph	Carcinogenic PAHs
Adopted Criteria	MTCA Method A Cleanup Levels for Groundwater	800	500	500	5	1,000	700	1,000	0.1	160	0.1**
Location/ Depth	Groundwater Monitoring Event	Gx	Dx	Heavy Oil	Benzene	Toluene	Ethyl Benzene	Xylene	B(a)P	Naph	Carcinogenic PAHs
MW2	September 30, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW2	March 4, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.099	<0.099	<0.099
MW2	July 23, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW3	September 30, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW3	December 10, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW3	March 4, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW3	July 23, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW4	September 30, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW4	December 10, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW4	March 4, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW4	July 23, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW5	September 30, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW5	December 10, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW5	March 4, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.099	<0.099	<0.099
MW5	July 23, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.099	<0.099	<0.099
MW6	September 30, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW6	December 10, 2014	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW6	March 4, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100
MW6	July 23, 2015	<50.0	<50.0	<100	<1.00	<1.00	<1.00	<1.00	<0.100	<0.100	<0.100

BOLD indicates above MTCA Method A Cleanup Levels for Groundwater

TPH - total petroleum hydrocarbons

Gx - gasoline range hydrocarbons

Dx - diesel range hydrocarbons

ug/L - micrograms per litre

<50 - less than the laboratory method reporting limit

B(a)P - benzo(a)pyrene

Naph - naphthalene

** Value for carcinogenic PAHs by toxicity equivalency methodology in WAC 173-340-708(8) and table 708.2

