



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 2, 2018

Mr. De Len B. Holbrook
Vice President HSE & Facilities
PNEC Corporation d.b.a. SC Fuels
1800 West Katella Avenue, Suite 400
Orange, CA 92867

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

- **Site Name:** Tosco Bainbridge Island Bulk Plant 1784
- **Address:** Weaver Ave & Shepard Way NW, Bainbridge Island, WA 98110
- **Cleanup Site ID No.:** 3960
- **Facility/Site ID No.:** 26595127
- **VCP Project No.:** NW3070

Dear Mr. Holbrook:

Thank you for submitting documents regarding your *Work Plan for Additional Soil, Groundwater and Sediment Sampling* for the Tosco Bainbridge Island Bulk Plant 1784 (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site:

- Total petroleum hydrocarbons in the gasoline, diesel and oil ranges (TPH-G, TPH-D and TPH-O) to the soil and ground water.
- Toluene, ethylbenzene and xylenes to the soil.
- TPH-G, TPH-D and TPH-O to the ground water.
- Benzene, toluene, ethylbenzene and xylenes (BTEX) to the ground water.
- Polycyclic aromatic hydrocarbons (PAHs) to the Soil and Ground water.



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Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

The Site is more particularly described in **Enclosure A** to this letter, which includes detailed Site diagrams. The description of the Site is based solely on the information contained in the documents listed in **Enclosure B**.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by completing a Request for Public Record form (<https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>) and emailing it to PublicRecordsOfficer@ecy.wa.gov, or contacting the Public Records Officer at 360-407-6040. A number of these documents are accessible in electronic form from the Site web page <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=3960>.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the releases at the Site, Ecology has determined:**

- Ecology agrees the proposed additional soil sampling locations are appropriately sited to assess current conditions in locations where the extent of contamination was not previously delineated and/or was left in place. Terracon's *Work Plan for Additional Soil, Groundwater and Sediment Sampling (Work Plan)* states that up to two soil samples will be collected from each soil boring location at approximately 2 to 5 feet below ground surface (bgs), from above the water table. The standard point of compliance for soil cleanup levels based on the leaching pathway (protection of ground water) is throughout the soil profile, including below the water table. Therefore, soil samples should not be limited to depths above the water table to demonstrate compliance.
- Soil samples may also be used as confirmation samples if their respective laboratory results are below Site cleanup levels. Therefore, Ecology recommends in addition to collecting samples from 2 and 5 feet bgs, samples should also be collected from the depth where contamination was previously encountered. For example, a 7- to 8- foot sample would be needed from the proposed boring location adjacent to boring B-7, where TPH-G exceeded the MTCA Method A, to assess current conditions.

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- Ecology agrees that additional samples should be collected if contamination is indicated by field screening. However, field screening alone cannot be used to demonstrate compliance with cleanup levels. The appropriate analytical method should be used for the known contaminants of concern. Method NWTPH-Gx and NWTPH-Dx would be appropriate, not hydrocarbon identification (HCID). Contaminants of concern have already been identified for the Site.
- Ecology recommends collecting soil samples from above and below the depth of previously confirmed contamination, to be held at the laboratory until confirmation is received, to ensure sampling is sufficient to delineate any potential contamination encountered.
- TPH-D contamination was identified at hand auger sample location HA-5 at concentrations of 21,200 mg/kg and 8,240 mg/kg at depths of 1 and 4.5 feet bgs, respectively. Although it appears that soil was removed from this former location of HA-5, the extent of contamination in shallow soil to the south was not delineated. The nearest sidewall samples SWALL-8' and WWALL-8' were collected from 8 feet bgs (approximately 10 feet to the east and 20 feet to the north respectively). Ecology recommends ensuring sidewall samples are collected at appropriate depths to confirm horizontal extent of contamination. This issue also occurs at hand auger location HA-6. Soil samples will be needed to delineate the contamination extent beyond the excavation footprint.
- Ecology agrees that the proposed temporary well locations located south of monitoring well MW-2A, adjacent to soil boring location SB7 (north side of detention pond) and adjacent to the detention pond outfall valve are appropriately placed to assess current ground water conditions downgradient of the known extent of contamination in ground water, which was not previously delineated. Ecology recommends moving the proposed temporary well adjacent to MW-5 to the south, so that it is downgradient of MW-5.
- The upper 4 feet of the excavation was considered clean and stockpiled separately for later use as backfill. Stockpile samples CSS-1, CSS-2 and CSS-3 all had concentrations of TPH-D or TPH-G that exceed current MTCA Method A cleanup levels. Ten cubic yards of stockpiled soil was reused for backfill and the remaining 10 yd³ was disposed of off-Site. Clarification is needed where the contaminated stockpiled soil was used as backfill.
- As mentioned in Ecology's July 25, 2017 opinion letter, a figure illustrating the boundaries of the 2001 and 2003 excavations, sampling locations and results needs to be submitted. It appears the "approximate extent of remedial excavation" illustrated on Exhibits 3 through 6 in the *Work Plan* combine the 2001 excavation and 2003 MW-2 excavation. It appears bottom samples were not collected from the 2003 excavation.

- As mentioned in Ecology's July 25, 2017 opinion letter, a Terrestrial Ecological Evaluation (TEE) needs to be completed for this Site, including submittal of supporting documentation and TEE forms. Refer to MTCA Table 749-2 for screening levels to identify all areas of the Site posing a potential ecological risk. The planned future use is residential and so unrestricted land use values would apply.
- Terracon will attempt to locate the detention pond outfall pipe. Historically, storm water runoff collected in the detention pond was released to Eagle Harbor via the outfall pipe and may have been a source of contamination. Ecology agrees a sediment sample collected from the outfall location would be sufficient to establish whether or not this was a point of release.
- Include Weaver Creek on all Site base maps, using aerial photos, stream basin maps and other resources to show the course of this stream in relation to the Property boundary and potential sources of contamination. Also, include a scaled local area map showing the Site features and contamination sources, the Property boundaries, Weaver Creek and the Eagle Harbor shoreline.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

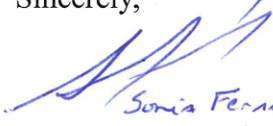
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If you have any questions regarding this opinion, please contact me at 425.649.7097 or e-mail at diane.escobedo@ecy.wa.gov.

Sincerely,



Sonia Fernandez for:

Diane Escobedo

Site Manager

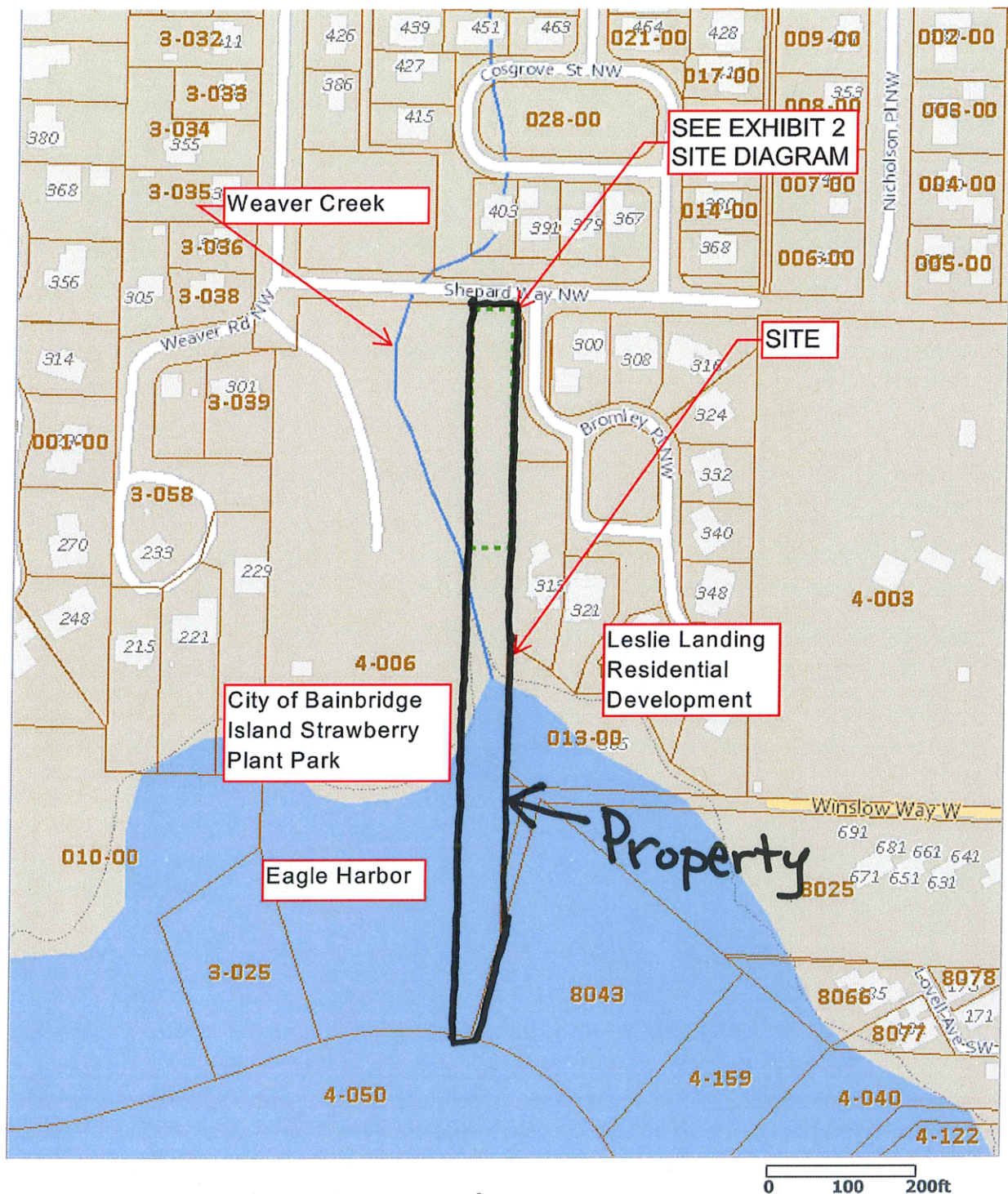
NWRO Toxics Cleanup Program

cc: Mike Noll, GHD Services

Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Site Diagrams



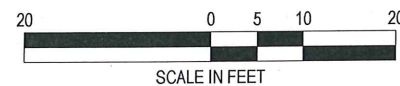
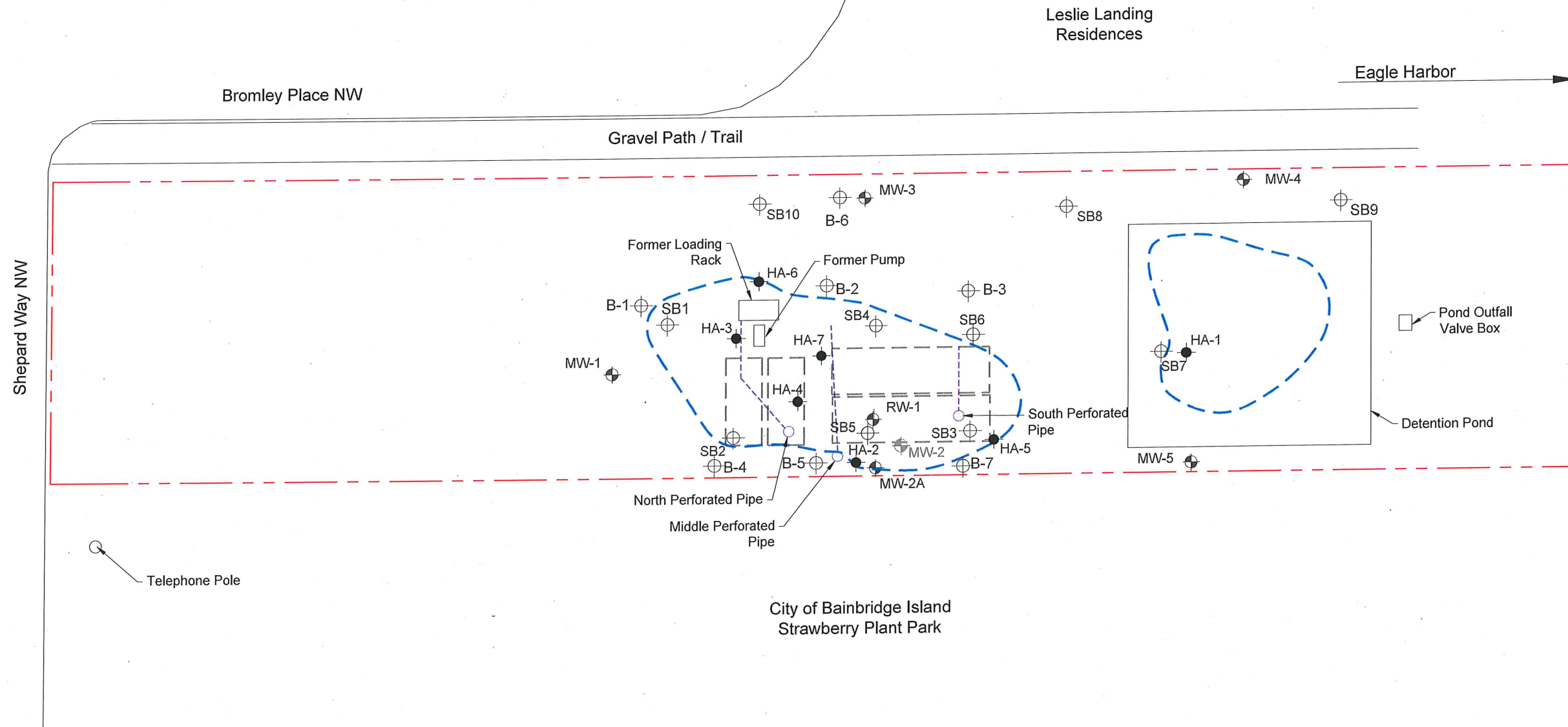
Site Diagram 1

Project Mgr:	MDN
Drawn By:	AMP
Checked By:	MDN
Approved By:	MDN
Project No:	81177343
Scale:	AS SHOWN
File No:	Exhibit 1A
Date:	August 2017

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Consulting Engineers and Scientists
21905 64th Avenue W, Ste 100 Mountlake Terrace, WA 98043
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PARCEL MAP
Former Tosco Bulk Plant 1784
Weaver Avenue & Shepard Way NW
Bainbridge Island, Kitsap County, Washington

EXHIBIT
1A



LEGEND			
	APPROXIMATE SITE BOUNDARY		APPROXIMATE LOCATION AND NUMBER OF DECOMMISSIONED MONITORING WELL
	APPROXIMATE LOCATION AND NUMBER OF MONITORING WELL		APPROXIMATE LOCATION AND NUMBER OF REMEDIATION WELL
	APPROXIMATE LOCATION AND NUMBER OF BORING		APPROXIMATE LOCATION OF PERFORATED PIPE RUN
	APPROXIMATE LOCATION AND NUMBER OF HAND AUGER BORING (PACIFIC ENVIRONMENTAL GROUP - SEPT. 1997)		APPROXIMATE EXTENT OF REMEDIAL EXCAVATION
			FORMER TANKS

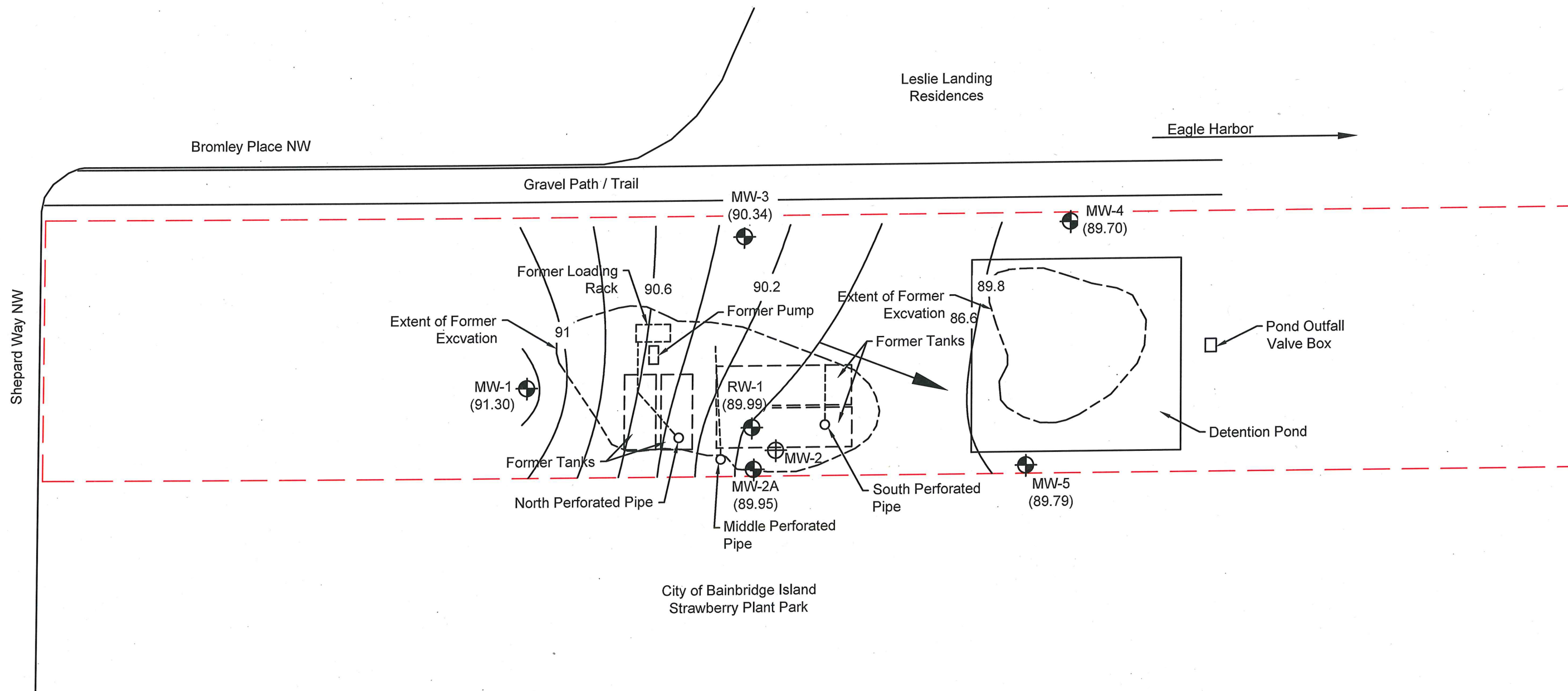
Project Mng:	MDN	Project No.	81177343
Drawn By:	SAB/RMS	Scale:	AS SHOWN
Checked By:	MDN	File No.	Exhibit 2
Approved By:	MYW	Date:	September 2017

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SITE DIAGRAM	
Former Tosco Bulk Plant 1784 Weaver Avenue & Shepard Way NW Bainbridge Island, Kitsap County, Washington	

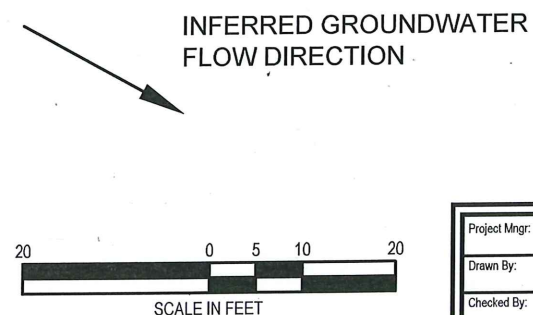
EXHIBIT
2

Site Diagram 2



LEGEND:

- APPROXIMATE SITE BOUNDARY
- MONITORING WELL NUMBER AND APPROXIMATE LOCATION (Groundwater elevation, April 20, 2016)
- FORMER MONITORING WELL LOCATION



— 91 — GROUNDWATER CONTOUR (feet)

Site Diagram 3

Project Mgr:	MDN	Project No.	81167198
Drawn By:	SAB/RMS	Scale:	AS SHOWN
Checked By:	MDN	File No.	gwcontFeb2016.dwg
Approved By:	MYW	Date:	April 2016

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GROUNDWATER CONTOUR MAP - April 20, 2016

Former PNEC Bulk Petroleum Facility
Shepard Way NW & Bromley Place NW
Bainbridge Island, Kitsap County, Washington

FIG. No.
3

Enclosure B

Basis for the Opinion: List of Documents

1. Terracon Consultants, Inc., *Work Plan for Additional Soil, Groundwater and Sediment Sampling, Former Tosco Bainbridge Island Bulk Plant 1784*, May 1, 2018.
2. Terracon Consultants, Inc., *Groundwater Monitoring Report: July & November 2016 and February 2017*, September 25, 2017.
3. Department of Ecology, *VCP Opinion on Remedial Action for the Hazardous Waste Site, Tosco Bainbridge Island Bulk Plant 1784*, July 25, 2017.
4. Terracon Consultants, Inc., *VCP Submittal Addendum, Tosco Bainbridge Island Bulk Plant 1784*, May 12, 2017.
5. Department of Ecology, *Request for Additional Information to Provide Opinion on the Investigation under VCP for Tosco Bainbridge Island Bulk Plant 1784*, February 24, 2017.
6. Terracon Consultants, Inc., *Site Remedial Action and Monitoring Summary Report*, November 18, 2016.
7. Terracon Consultants, Inc., *Groundwater Monitoring Report: April 2016*, May 23, 2016.
8. Terracon Consultants, Inc., *Groundwater Monitoring Report: February 2016*, April 14, 2016.
9. Terracon Consultants, Inc., *Remedial Treatment Report: January 2015*, April 2, 2015.
10. Terracon Consultants, Inc., *Groundwater Monitoring Report: April and July 2015*, August 21, 2015.
11. Terracon Consultants, Inc., *Groundwater Monitoring Report: August 2014*, September 30, 2014.
12. Secor International Incorporated (Secor), *Groundwater Monitoring Report, Second Quarter 2007*, October 5, 2007.
13. Secor, *Groundwater Monitoring Report, First Quarter 2007*, July 6, 2007.

14. Department of Ecology, *Further Action Determination under WAC 173-340-515(5) for Hazardous Waste Site Tosco Bainbridge Island Bulk Plant 1784*, May 16, 2007.
15. Department of Ecology, *Notification of Removal from the Voluntary Cleanup Program due to Inactivity*, May 16, 2007.
16. Secor, *Groundwater Monitoring Report, Fourth Quarter 2006*, January 22, 2007.
17. Department of Ecology, *Notification of Pending Inactive Determination Status for Harzardous Waste Site Tosco Bainbridge Island Bulk Plant 1784*, November 15, 2006.
18. Secor, *Groundwater Monitoring Report, Third Quarter 2006*, November 7, 2006.
19. Secor, *Groundwater Monitoring Report, Fourth Quarter 2005*, March 2, 2006.
20. Secor, *Groundwater Monitoring Report, Third Quarter 2005*, December 9, 2005.
21. Secor, *Work Plan for Additional Soil Excavation, Conoco Phillips Site No. 0961, Shepard Way NW and Bromley Place NW, Bainbridge Island, Washington*, November 8, 2005.
22. Secor, *Groundwater Monitoring Report, Second Quarter 2005*, October 21, 2005.
23. Secor, *Groundwater Monitoring Report, Fourth Quarter 2004*, February 25, 2005.
24. Secor, *Groundwater Monitoring Report, Third Quarter 2004*, December 20, 2004.
25. Secor, *Groundwater Monitoring Report, Second Quarter 2004*, August 23, 2004.
26. Secor, *Groundwater Monitoring Report, First Quarter 2004*, July 4, 2004.
27. Secor, *Groundwater Monitoring Report, Fourth Quarter 2003*, February 4, 2004.
28. Noll Environmental, Inc., *Summary of Additional Soil Excavation and Groundwater Monitoring Activities, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, July 1, 2003.
29. Noll Environmental, Inc., *Summary of Groundwater Monitoring Activities – December 2002 & January 2003, Former Unocal Bulk Plan 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, March 7, 2003.
30. Noll Environmental, Inc., *Groundwater Sampling Results for Conference Call Discussion, Former Tosco/Unocal Bulk Plant 1784, SW Corner – Shepard Way NW &*

Bromley Place NW, Bainbridge Island, WA, July 3, 2002.

31. Noll Environmental, Inc., *Summary of Groundwater Monitoring Activities – March 2002, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA, April 16, 2002.*
32. Noll Environmental, Inc., *Summary of Groundwater Monitoring Activities – September 2001, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA, October 9, 2001.*
33. Noll Environmental, Inc., *Summary of Soil Excavation and Groundwater Monitoring Activities, Former Tosco Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA, September 4, 2001.*
34. Noll Environmental, Inc., *Request for Extension to Grading Permit No. 8084 for Site Cleanup Work, Former Tosco Bulk Heating Oil Storage Facility, SW Corner of Shepard Way NW & Bromley Place NW, Bainbridge Island, WA, April 30, 2001.*
35. Noll Environmental, Inc., *Request for Grading Permit to Conduct Site Cleanup Work, Former Tosco Bulk Heating Oil Storage Tank Facility, SW Corner of Shepard Way NW & Bromley Place NW, Bainbridge Island, WA, August 22, 2000.*
36. Department of Ecology, *Letter Re: Independent Remedial Action, Former Tosco Bulk Plant #1784, Weaver Avenue, Bainbridge Island, WA, August 7, 2000.*
37. Bremerton Kitsap County Health District, *Initial Investigation Referral, April 6, 2000.*
38. Noll Environmental, Inc., *Work Plan for Soil Removal, Groundwater Treatment and Well Installation,, Former Tosco/Unocal Bulk Plant No. 1784, Bainbridge Island, WA, March 28, 2000.*
39. Tosco Refining Company, *Notice of Environmental Remedial Action, March 20, 2000.*
40. Tosco Refining Company, *Voluntary Cleanup Program Application, March 17, 2000.*
41. Noll Environmental, Inc., *Summary of Additional Site Assessment Activities, Pacific (Former Tosco) Bulk Storage Facility – Weaver Road, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA, January 24, 2000.*
42. Pacific Environmental Group, Inc., *Soil Investigation, Pacific Coast Energy Company Facility, Weaver Road, Bainbridge Island, Washington, October 15, 1997.*