



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

July 10, 2017

Mr. Scott Wagner  
Narrows Marina  
9007 S 19<sup>th</sup> St  
Tacoma WA 98466

**Re: No Further Action at the following Site:**

- **Site Name:** Narrows Marina
- **Site Address:** 9007 South 19<sup>th</sup> Street, Tacoma, Washington
- **Facility/Site No.:** 99977353
- **Cleanup Site No.:** 11373
- **VCP Project No.:** SW1416

Dear Mr. Wagner:

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

---

**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 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 into the soil and potentially into groundwater.

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

Please note the parcel of real property associated with this Site is located within the projected boundaries of the Tacoma Smelter Plume facility (#89267963). At this time, we have no information that this parcel is actually affected. **This opinion does not apply to any contamination associated with the Tacoma Smelter Plume facility.**

### **Basis for the Opinion**

---

This opinion is based on the information contained in the following documents:

- *UST Decommissioning Report*, Eco Compliance Corporation, April 11, 2017.

This document is kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You may make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in this document 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. The Site is described above and in **Enclosure A**. The location of the Site relative to the surrounding area, is shown in Figure 1.

In November 2016, the two currently in use underground storage tanks (USTs) were removed. The 4,000-gallon UST contained diesel and the 6,000-gallon UST contained gasoline. The USTs were located in a north-south line (Figure 2). The north end of the northern UST abutted the south edge of the excavation of the previous generation of USTs that were removed in 1989. Contamination from the 1989 UST removal and excavation remained in the south wall at approximately 10 feet below ground surface (bgs).

After the removal of the current USTs, the north side of the excavation, common with the south wall of the previous excavation, was sampled at approximately 10 feet bgs.

Soil samples collected from the north wall, and additional areas in the current excavation, were analyzed for Total Petroleum Hydrocarbons-Gasoline (TPH-G), Total Petroleum Hydrocarbons-Diesel (TPH-D), Total Petroleum Hydrocarbons-Oil (TPH-O), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl-tert butyl ether (MTBE), and lead (Pb). All results for these analyses, with the exception of Pb, were below appropriate detection limits. The highest Pb detection in the excavation was 13 milligrams per kilogram (mg/kg), which is below the Method A cleanup level of 250 mg/kg.

The excavation was extended to approximately 15 feet bgs to accommodate a new UST. Groundwater was encountered at approximately 12 to 13 feet bgs. During extending the excavation, soil/mud was removed to attain the required depth. Three samples of the soil/mud were collected and analyzed for TPH-G, TPH-D, TPH-O, BTEX, MTBE, and Pb. TPH-D, TPH-O, and Pb were found at levels below Method A cleanup levels.

After the required depth was reached, a 12 inch stand pipe was put in the base of the excavation to facilitate dewatering. The water was pumped from the stand pipe into a 10,000-gallon holding tank. In December, a sample of the groundwater was collected from the stand pipe. A water sample was also collected from the holding tank. The samples were analyzed for TPH-G, TPH-D, TPH-O, BTEX, MTBE, Pb, 1,2-dichloroethane, and 1,2-dichloroethane. All results were non-detect.

## **2. Establishment of cleanup standards.**

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

MTCA Method A Cleanup Levels for unrestricted land use for soil and groundwater were used to characterize the Site.

### **The Method A cleanup levels used are:**

#### **Soil:**

TPH-G	30 mg/kg
Benzene	0.03 mg/kg
Toluene	7 mg/kg
Ethylbenzene	6 mg/kg
Total Xylenes	9 mg/kg
TPH-D	2,000 mg/kg
TPH-O	2,000 mg/kg
Pb	250 mg/kg

**Groundwater:**

TPH-G	800 ug/l
Benzene	5 ug/l
Toluene	1000 ug/l
Ethylbenzene	700 ug/l
Total Xylenes	1000 ug/l
TPH-D	500 ug/l
TPH-O	500 ug/l
Pb	15 µg/l

**a. Points of compliance**

Standard points of compliance were used for the Site.

**The Points of Compliance are:**

**Soil -Direct Contact:** For soil cleanup levels based on human exposure via direct contact, the point of compliance is: *"...throughout the Site from ground surface to 15 feet below the ground surface."*

**Soil- Leaching:** For sites where soil cleanup levels are based on the protection of groundwater: *"...the point of compliance is throughout the Site"*

**Groundwater:** For groundwater, the standard point of compliance as established under WAC 173-340-720(8) is: *"...throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site."*

**Vapor:** Ambient and Indoor Air throughout the site

Since no contamination remains at the Site, none of the pathways of exposure listed above are complete thus all points of compliance were met.

**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 the Site was removal of contaminated soil and land farming to attain Method A.

This selected remedy was compared to Model Remedy 1 in the Draft *Model Remedies for Sites with Petroleum Contaminated Soils*, Department of Ecology, Publication No. 15-09-043, September, 2015. The description for this remedy states:

“This model remedy is for situations where complete removal of the contaminated soil will take place and Method A Soil Cleanup levels for Unrestricted Property Use have been selected. Following excavation, confirmation testing must be performed to document that the applicable Method A cleanup levels found in Table 740-1 of WAC 173-340-900 have been met at the point of compliance, such that no environmental covenants are necessary.

#### 4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site as stated in Model Remedy 1.

The two existing USTs were removed from the Site in 2016. Since no contamination was found, it was not necessary to treat soil excavated from the Site.

The cleanup action taken at the Site in 1989 was removal of affected soil. The approximately 450 cubic yards of contaminated soil was spread out on visqueen and tilled to enhance biodegradation. Samples were then collected and analyzed to determine the soil met the Method A cleanup levels. The remediated soil was then returned to the excavation.

### 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).

**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 (#SW1416).

For more information about the VCP and the cleanup process, please visit our web site: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (360) 407-6263 or e-mail at [Carol.Johnston@ecy.wa.gov](mailto:Carol.Johnston@ecy.wa.gov).

Sincerely,



Carol A. Johnston  
SWRO Toxics Cleanup Program

CAJ: kb

Enclosures (1): A – Description and Diagrams of the Site

By Certified Mail: [91 7199 9991 7037 0291 6371]

cc: Bill Kane, ECO Compliance Corp.  
Rob Olsen, TPCHD  
Nicholas Acklam, Ecology  
Matthew Alexander, Ecology  
Mark Gordon, Ecology

## **Enclosure A**

### **Description and Diagrams of the Site**

## Site Description

The Site, located at 9007 South 19<sup>th</sup> Street, Tacoma, Pierce County, Washington, is an active marina facility. The Property is 12.78 acres surrounded by Puget Sound on the northeast and commercial property on the rest of the sides (Figure 1).

Three underground storage tanks (USTs) – two 3,000-gallon gasoline and one 3,000-gallon diesel – were removed in June 1989 (Figure 2). Soil samples collected from the excavation were analyzed for Total Petroleum Hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX). TPH, benzene, and xylenes were found above the cleanup levels used at that time.

Over excavation of contaminated soil was continued until clean limits were found on the north, east, and west walls. Contamination remained in the south wall and was left in place due to stability concerns of above ground storage tanks located there (Table 1).

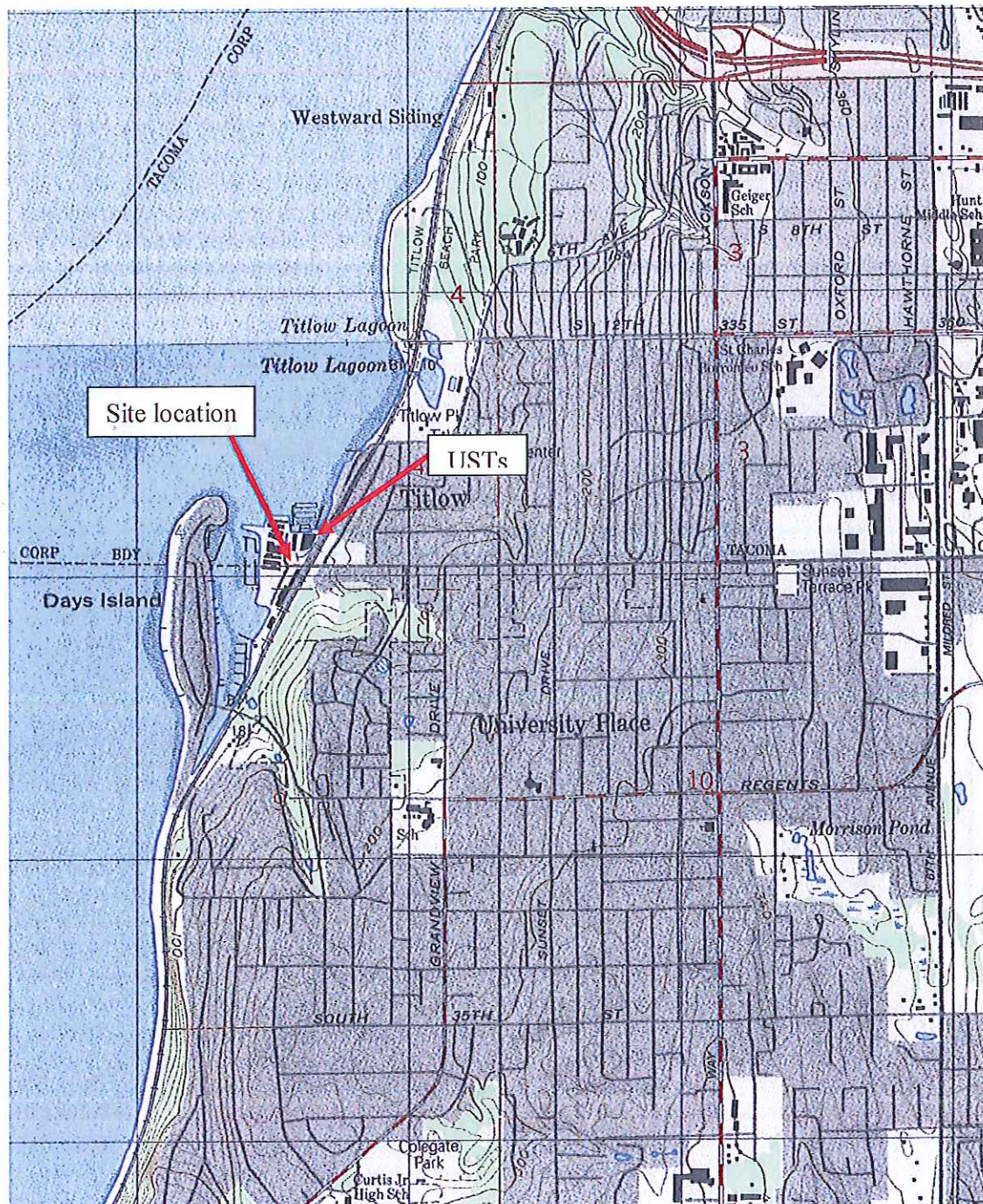
The total depth reached during excavation was 14 feet bgs. The report did not indicate groundwater was found.

The approximately 450 cubic yards of contaminated soil removed during excavation was placed on plastic sheeting and spread out in a thin layer. It was tilled several times to enhance bioremediation. After 2 weeks, four composite samples were collected, analyzed for TPH and two for BTEX, and found to be compliant with cleanup levels. The soil was then used for backfill in the excavation.



## Site Diagrams

Figure 1. Site location map. Narrows Marina. 9007 South 19<sup>th</sup> Street, Tacoma, Washington.

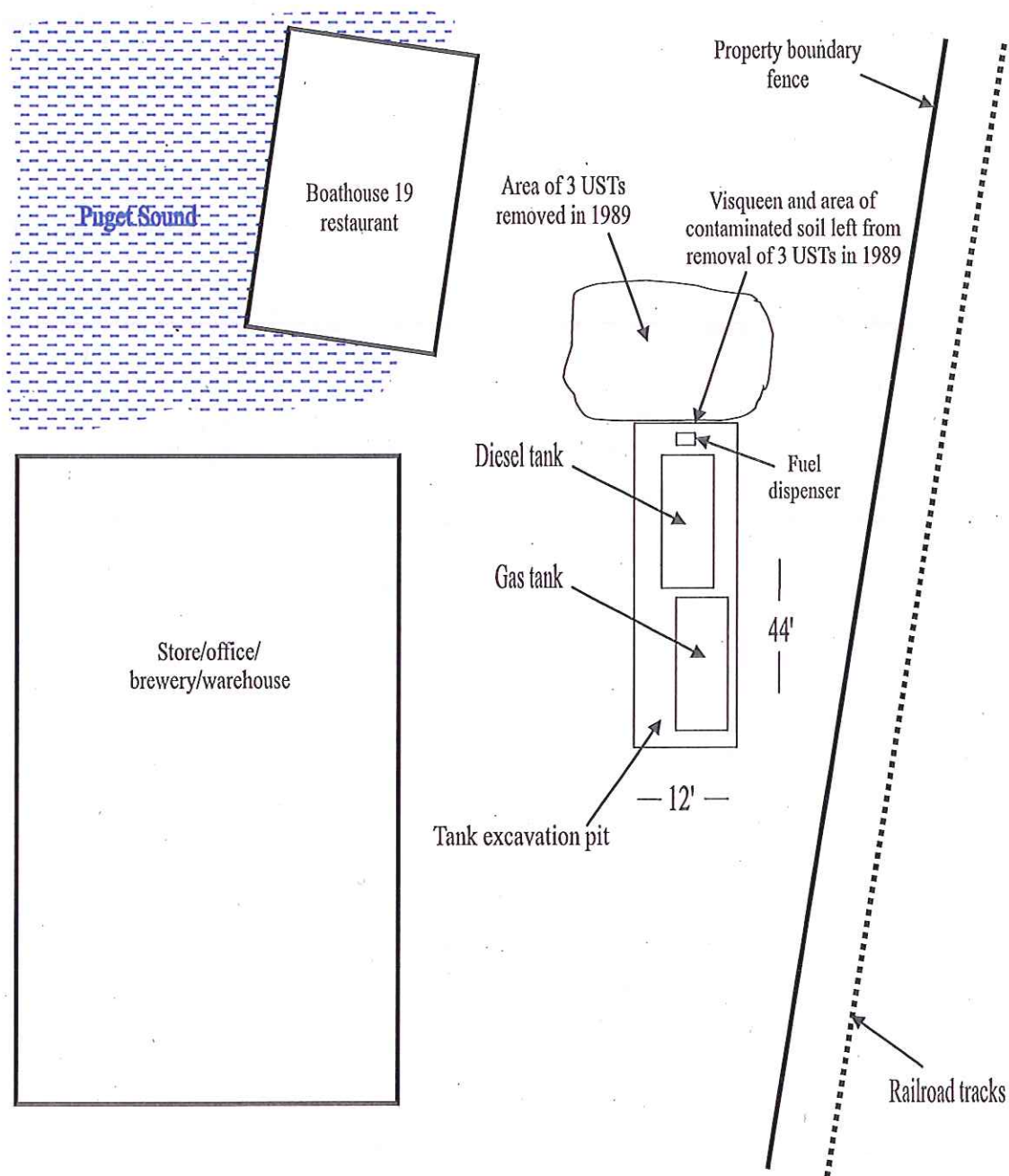


Not to scale





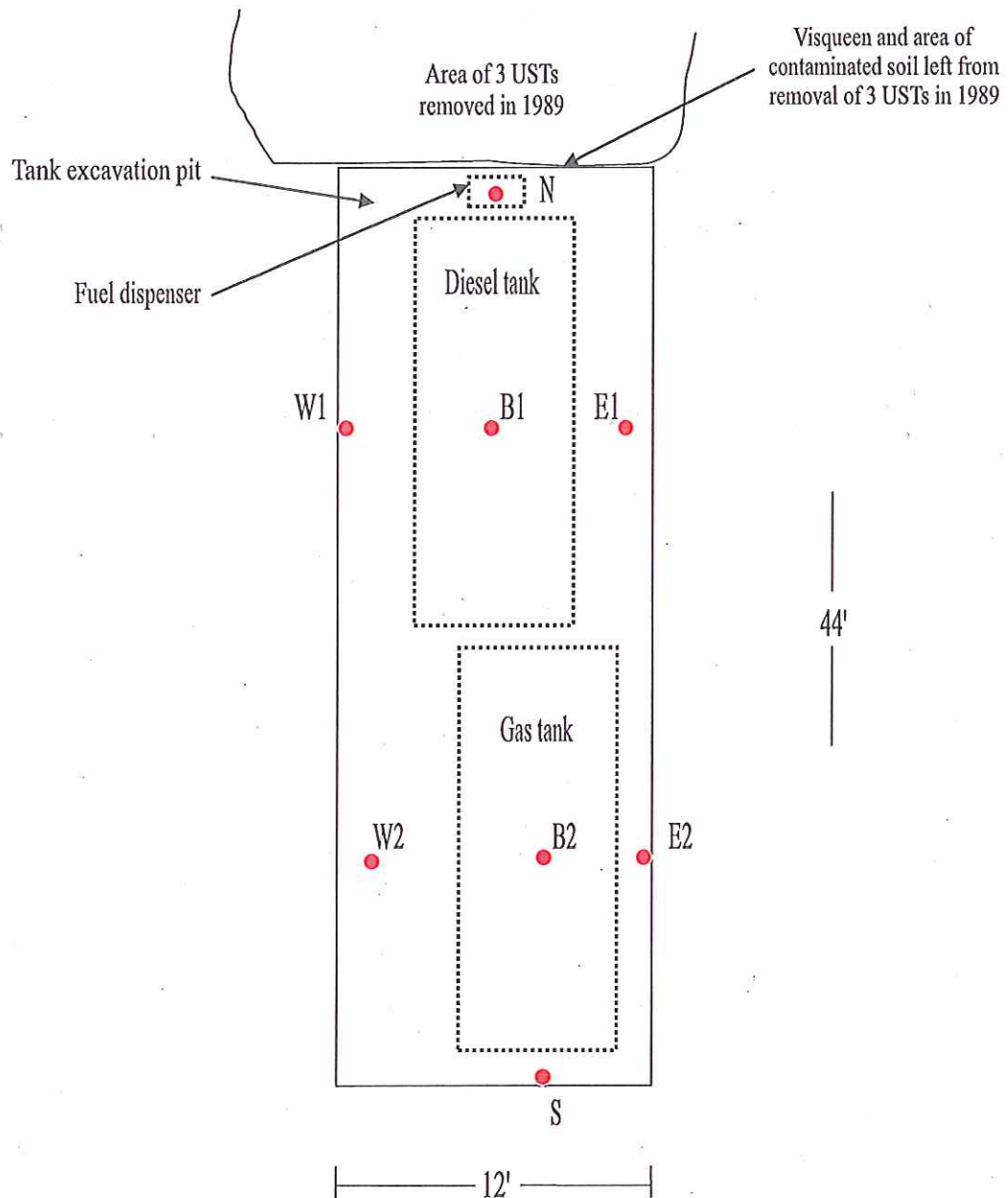
Figure 2. Approximate UST and fuel dispenser locations. Narrows Marina. 9007 South 19<sup>th</sup> Street, Tacoma, Washington.



Not to scale



Figure 3. Approximate UST soil sampling locations. Narrows Marina. 9007 South 19<sup>th</sup> Street, Tacoma, Washington. November 29, 2016.



● N Approximate soil sampling location

↑  
N

Not to scale

