



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

March 30, 2012

Mr. Perry Pineda
Shell Oil Products US
20945 S. Wilmington Ave
Carson, CA 90810

Re: Further Action at the following Site:

- **Site Name:** Shell Oil Products US SAP 121038
- **Site Address:** 2805 SW Roxbury St Seattle
- **Parcel Numbers:** 0123039482, 0123039481, King County
- **Facility/Site No.:** 71459562
- **Cleanup Id.:** 6544
- **VCP Project No.:** NW2054

Dear Mr. Pineda:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Shell Oil Products US SAP 121038 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

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

YES. Ecology has determined that 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 releases:

- Gasoline-, Diesel-, Oil-range Total Petroleum Hydrocarbons (TPHg, TPHd, TPHo) in Soil and Ground Water;
- Benzene, Toluene, Ethyl-Benzene, Xylene (BTEX) in Soil and Ground Water;
- Perchloroethane (PCE) and Trichloroethane (TCE) in soil and Ground Water,
- MTBE in soil and Ground Water.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology. The releases may be associated with the following areas: former UST nests, former used oil and heating oil USTs, former dispenser islands, concrete cistern, and current UST nest.

Please note the Tacoma Smelter Plume also affects parcel(s) of real property associated with this Site. 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:

1. CRA. Remedial Investigation, Shell-Branded Wholesale Facility, 2805 Southwest Roxbury Street, Seattle, Washington, Facility # 71459562, VCP # NW2054. March 21, 2011.
2. GeoEngineers. Supplemental Environmental Drilling Ground Water Sampling and High Vacuum Ground Water Extraction Services March and April 1998, Texaco Service Station 63-232-1432, 2805 SW Roxbury Street, Seattle, Washington. July 17, 1998.
3. GeoEngineers. Supplemental Environmental Services Texaco Service Station 63-232-1432, 2805 SW Roxbury Street, Seattle, Washington. October 19, 1995.
4. GeoEngineers. Subsurface Site Investigation Report Texaco Service Station 63-232-1432, 2805 SW Roxbury Street, Seattle, Washington. November 8, 1994.
5. Ground Water monitoring reports 1995 – present.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at 425-649-7190.

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

Cleanup

Ecology has concluded that **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 not sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

The lateral and vertical extent of ground water contamination that extends beyond the west and southwest property boundary has not been defined. The lateral and vertical extent of contaminated soil has not been defined in the southwest corner of the Property because soil samples were not collected when monitoring well AGW-13 was installed in 2009.

The extent of soil contamination that remains along the limits of soil excavation conducted at the former USTs and former dispenser islands in 1988 was not adequately characterized. Contaminated soil may have remained at a depth greater than 17.5 feet (the apparent maximum depth of excavation) and along the sidewalls of the excavation.

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.

a. Cleanup levels.

Soil

A terrestrial ecologic evaluation (TEE) has been completed and an exclusion identified. Therefore soil cleanup standards protective of terrestrial species are not required.

The Site does not meet the MTCA definition of an industrial property; therefore soil cleanup levels suitable for unrestricted land use are appropriate. For unrestricted land use, direct contact, either Method A or Method B cleanup levels can be used.

Ground water at this site has been impacted by the identified releases, therefore soil cleanup levels based on leaching (protection of ground water) are appropriate. To establish soil concentrations protective of ground water, either MTCA Method

A cleanup levels (Table 740-1) or one or more of the methods described in WAC 173-340-747 may be used.

Ground Water

Ground water at the Site has been impacted by releases; therefore, either MTCA Method A or Method B cleanup levels could be used.

b. Points of compliance.

Soil

The point of compliance based on the protection of ground water is Site wide throughout the soil profile and may extend below the water table. This is the appropriate point of compliance for the Site.

Ground Water

The standard point of compliance for ground water is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site does not meet the substantive requirements of MTCA. No cleanup action plan was proposed in the Remedial Action Report (CRA 2011).

The following interim actions have taken place at the Site:

- Former USTs and dispenser islands were removed in 1988 and replaced with new USTs and dispenser islands. Approximately 2,240 cubic yards of contaminated soil was removed from the excavation area.
- In 1995, a passive separate phase hydrocarbon recovery system was installed.
- In 1997, a soil vapor extraction (SVE) and vacuum-enhanced recovery (VER) pilot systems were installed. The SVE system was determined to be ineffective due to low permeability of the soil.
- In 1998, five high vacuum ground water extraction events were conducted at monitoring wells AGW-1, AGW-3, AGW-7, and AGW-12 which removed approximately 2,800 gallons of water.

4. Cleanup.

Ecology has determined the cleanup you performed does not meet any cleanup standards at the Site.

Confirmation soil samples collected at the completion of soil excavation at the former UST nest and former dispenser islands indicated that soil above MTCA Method A cleanup levels remained.

The lateral and vertical extent of soil above MTCA Method A cleanup levels was not defined along the southwest and western boundary of the Site, it may extend beyond the Property boundaries.

The lateral and vertical extent of ground water above MTCA Method A cleanup levels was not defined along the southwest and western boundary of the Site, it may extend beyond the Property boundaries.

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 by phone at 425-649-7242 or e-mail at ligo461@ecy.wa.gov.

Sincerely,



Libby S. Goldstein
NWRO Toxics Cleanup Program

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

cc: Brian Peters, CRA

Enclosure A

Description and Diagrams of the Site

Site Description

Site Name: Shell Oil Products US SAP 121038

Site Address: 2805 SW Roxbury St Seattle

Parcel Numbers: 0123039482 and 0123039481, King County

Facility/Site No.: 71459562

Cleanup Id.: 6544

VCP Project No.: NW2054

Site and Property Definition: The site is located at 2805 SW Roxbury St Seattle, Washington. The Site is defined by gasoline-, diesel- and oil-range petroleum hydrocarbons (TPHg, TPHd, TPHo) and benzene, toluene, ethyl-benzene and xylenes (BTEX), Perchloroethane (PCE), Trichloroethane (TCE), and MTBE released to the soil and to groundwater.

Area Description: The Property is comprised of two parcels (0123039482 and 0123039481, King County). The property is zoned commercial and is located on the northwest corner of SW Roxbury Street and 28th Avenue SW. Directly east across 28th Avenue SW is a Safeway Grocery Store with a gas station. The Property is bounded on the south by the parking lot for Roxbury Lanes and Casino. The Roxbury Lanes and Casino and the Roxbury Auto Repair are west of the Property. The closest residential area is approximately 250 feet south and southwest of the Site. North of SW Roxbury Street is Roxbury Elementary School

Property History and Current Use: The Property is currently a Shell-branded wholesale facility. It was first developed in 1957 with a building containing offices and a garage which was occupied by the Washington State Patrol. From 1965 to 1988, retail gasoline service stations with auto repair operated at the Site. In 1988, the Property was remodeled without an automotive service station and operated as a gasoline resale station. Gull and TMRI operated at the Property until 1998 when Equilon acquired the Property. In 2009, the Property was sold to Henry W. Inc. The current Property includes a station building, a car wash, four dispenser islands and three USTs in a common excavation in the southern portion of the Property.

Contaminant Sources and History of Releases: A specific release or releases have not been identified at the Site. It is inferred based upon contaminant concentrations and distribution that the sources were the former UST nest area, former dispenser island and distribution piping, former heating oil and waste oil USTs, current UST nest and former concrete cistern.

Physiographic Setting: The Property is at approximately 287 feet above mean sea level at the bottom of a relatively flat broad swale. Seola Creek is located approximately ½ mile to the south of the Property and Puget Sound is 1.5 miles west of the Property.

Surface/Storm Water System: The majority of the property is covered by asphalt and concrete pavement. Runoff from the property flows to catch basins and are connected to the storm water vault for filtration and debris removal prior to discharge to the municipal storm water system.

Ecological Setting: Little undeveloped land exists immediately around the Site. There is no significant nearby habitat.

Geology: The site is located in the Puget Lowland Physiographic province of Washington and is characterized by a broad low lying region situated between the Cascade Range to the east and the Olympic Range to the west. The Site is underlain by weathered glacial till comprised of silty sandy silt with varying amounts of gravel to about 12 feet bgs. This is underlain by glacial till consisting of dense, compacted mixture of clay, silt, sand, and gravels to the total depth explored (36 feet bgs).

Ground Water: Regional ground water is in the Puget-Willamette Trough lowland regional aquifer between the Cascades and Olympic mountain ranges in Washington. Ground water exists in the uppermost aquifer in unconsolidated glacial deposits and till material. There are no drinking water wells identified within one mile of the Property. Shallow ground water at the Site occurs within the native deposits under unconfined conditions. The water bearing zone was measured at depths varying between 8 and 22 feet below ground surface (bgs) and fluctuates seasonally. Fourteen ground water monitoring wells are on the Site. Based on monitoring events conducted since 1995 the ground water flow is predominately to the southwest.

Water Use: The property is connected to the City of Seattle municipal water system and municipal sewer system. There are no nearby residential water wells in use.

Release and Extent of Contamination - Soil: Soil contamination was detected in soil adjacent the former UST nest area, former dispenser island and distribution piping, former heating oil and waste oil USTs, current UST nest and former concrete cistern. Soil contamination likely extends off Property to the south and southwest.

Extent of Contamination – Ground Water: Ground water sampling confirmed contaminants of concern that exceeded MTCA Method A groundwater cleanup levels. The full lateral extent has not been determined. Ground water contamination extends south and southwest of the Property.

Interim Actions: The following interim actions have taken place at the Site:

- Former USTs and dispenser islands were removed in 1988 and replaced with new USTs and dispenser islands. Approximately 2,240 cubic yards of contaminated soil was removed from the excavation area.
- In 1995, a passive separate phase hydrocarbon recovery system was installed.

- In 1997, a soil vapor extraction (SVE) and vacuum-enhanced recovery (VER) pilot systems were installed. The SVE system was determined to be ineffective due to low permeability of the soil.
- In 1998, five high vacuum ground water extraction events were conducted at monitoring wells AGW-1, AGW-3, AGW-7, and AGW-12 which removed approximately 2,800 gallons of water.

[illegible]

figure 2
SITE PLAN
SHELL-BRANDED WHOLESALE FACILITY
2805 SOUTHWEST ROXBURY STREET
Seattle, Washington