



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1250 W Alder St • Union Gap, WA 98903-0009 • (509) 575-2490

January 23, 2018

William N. and Shannon K. Petrak  
P.O. Box 365  
Weston, OR 97886

Re: No Further Action at the following Site:

Site Name:	Richland Uptown Shopping Center Parcel 11
Site Address:	1368 Jadwin Avenue, Richland
Assessor's Property No.:	15826
Facility Site No.:	11498
Cleanup Site ID No.:	11644
VCP Project ID No.:	CE0473

Dear Mr. and Mrs. Petrak:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Richland Uptown Shopping Center Parcel 11 site (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?

**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 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:

- Heavy oil range petroleum hydrocarbons into the Soil and Groundwater.

The Site is a parcel within a strip mall in Richland, Washington. The parcel consists of one shop in the mall. A heating oil underground storage tank (UST) was removed from the site just outside the rear of the shop in 1994. **Enclosure A** presents a Site Plan showing the location of the former heating oil tank.



During excavation and removal of a heating oil underground storage tank (UST), heavy oil range petroleum hydrocarbons were detected in soil samples (3,800 mg/kg at the base of the excavation at 10.5 feet depth, and 2,100 mg/kg in sidewall of the excavation at a depth of 6.5 feet). In addition, approximately one inch of free product was observed at the bottom of the tank pit.

### **Basis for the Opinion**

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

1. "Report of Underground Storage Tank Removal Project, Limited Environmental Site Assessment, Uptown Shopping Center", Prepared by Huntingdon, dated June 8, 1994.
2. "Groundwater Monitoring and Passive Hydrocarbon Recovery Services, Uptown Shopping Center", prepared by URS, dated October 8, 2011.
3. "Soil and Groundwater Assessment Report at Richland Uptown Shopping Center, Parcel 11", prepared by Blue Mountain Environmental and Consulting Co. Inc., dated November 27, 2017.

These documents are kept at the Central Regional Office of Ecology for review by appointment only. You can make an appointment by contacting the Records Officer at (360) 407-6040 or [recordsofficer@ecy.wa.gov](mailto:recordsofficer@ecy.wa.gov).

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

### **Analysis of the Cleanup**

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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. A Site Plan is presented in **Enclosure A**.

Soil and groundwater sampling was done in 2017, to characterize the current conditions from a release of heavy oil range petroleum hydrocarbons that was identified in 1994, when a heating oil underground storage tank (UST) was removed from the Parcel 11 site. In 1994, two soil samples were collected from the tank excavation and analyzed for total petroleum hydrocarbons (TPH) by modified Method 8015. TPH was detected at 2,100 mg/kg in a sidewall sample collected at a depth of 6.5 feet below ground surface (ft bgs) and at 3,800 mg/kg in a floor samples collected at 10.5 ft bgs.

In 2017, soil samples were collected at four locations using direct push (i.e. Geoprobe sampling methods). Three sample locations surrounded the former tank pit location and a fourth location was in the City of Richland right-of-way, south-southwest of the former tank location. The borings were extended to a depth of 8 ft bgs, except for the right-of-way location (BMEC-04) which had a total depth of 15 ft bgs. Soil samples were collected at a depth of 8 ft bgs at each location and a second soil sample was collected at a depth of 13 ft bgs at the right-of way location. Heavy oil range petroleum hydrocarbons were detected at two of three locations adjacent to the former tank pit at a depth of 8 ft bgs (concentrations of 290 mg/kg and 2,200 mg/kg at BMEC-02 and BMEC-03, respectively).

Diesel range petroleum hydrocarbons (TPH-d) were detected in the right-of-way soil sample (BMEC-04) collected at a depth of 13 ft bgs at 39 mg/kg. In addition, TPH-d was detected in a groundwater sample collected at this location at 39,000 µg/L. No TPH-o was detected at this location, indicating groundwater was not impacted at this location by the former heating oil UST release. The TPH-d at this location is believed by Ecology to originate from parcel 10, the parcel adjacent to and south of Parcel 11. Monitoring well MW-2, located adjacent to the rear of Parcel 10, had 0.5 feet of free product measured in the well in 2017 (free product had also been measured in this well in 2011 and earlier). A total of four USTs were found at the rear of Parcel 10 in 1994; two of which were removed and two of which remained. One of these Parcel 10 USTs is considered by Ecology to be the source of diesel found in the right-of-way south-southwest of Parcel 11.

## 2. Establishment of cleanup standards.

Heavy oil range TPH (TPH-o) has a Method A Cleanup Level of 2,000 mg/kg. The soil sample collected from location BMEC-03 in 2017, had a TPH-o concentration of 2,200 mg/kg, slightly exceed the Method A Cleanup Level. A Method B cleanup level of **4,421 mg/kg** was derived based on the TPH-o being broken into the following aliphatic and aromatic components (applying Ecology's standardized distribution for heavy fuel oil):

<u>Aliphatics</u>	<u>Aromatics</u>
AL >8-10 0.57%	AR >10-12 0.57%
AL >10-12 1.25%	AR >12-16 0.83%
AL >12-16 10.64%	AR >16-21 4.48%
AL >16-35 60.63%	AR >21-35 21.03%

## 3. Selection of cleanup action.

Ecology has determined the cleanup action performed at the Site (natural attenuation) meets the substantive requirements of MTCA. The release of TPH-o occurred on or prior to 1994, when the heating oil UST was removed. Therefore, at least 23 years have passed since the release of heating oil from the UST. The release was in sandy soils which are conducive to natural biodegradation of the TPH-o.

The cleanup can be considered protective and permanent because of 1) current soil concentrations are less than the selected cleanup levels, and 2) potential exposure mechanisms to TPH-o impacted soils at the site are considered to be of low likelihood, duration, and severity. The only potential exposure pathways that are operable are direct exposure to utility workers performing temporary excavation work and the soil to groundwater pathway. The lack of TPH-o impact to groundwater at this location in 2017, provides evidence of compliance via direct comparison. Continued biodegradation of the TPH-o in soil is anticipated to further reduce risks in the future.

#### **4. Cleanup.**

Ecology has determined the cleanup meets the cleanup standards established for the Site. Compliance with the selected cleanup standard (Method B soil concentration of 4,421 mg/kg) was demonstrated through the collection of soil samples surrounding the former heating oil UST tank pit in 2017 (maximum detection of 2,200 mg/kg TPH-o). TPH-o will continue to be reduced as biodegradation further reduces soil concentrations in the future.

#### **Listing of the Site**

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

#### **Limitations of the Opinion**

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##### **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.

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**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**

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Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#CE0473).

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 (509) 454-7835 or e-mail at [frank.winslow@ecy.wa.gov](mailto:frank.winslow@ecy.wa.gov).

Sincerely,



Frank P. Winslow  
CRO Toxics Cleanup Program

Enclosures:        A – Site Plan

cc:     Brent Bergeron, Blue Mountain Environmental  
       Matthew Alexander, Interim VCP Financial Manager