STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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September 6, 2019

David Borys
HydroCon Environmental, LLC
314 W 15th Street, Suite 300
Vancouver, WA 98660

Re: Opinion pursuant to WAC 173-340-515(5) on Proposed Environmental Assessment Work Plan for the following Hazardous Waste Site:

- **Name:** John's Shell
- **Address:** 1410 Ocean Beach Hwy, Longview, WA 98632
- **Facility/Site No.:** 98186449
- **VCP No.:** SW1623
- **Cleanup Site ID No.:** 11294

Dear David Borys:

Thank you for submitting documents regarding your proposed remedial action for the John's Shell facility (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 release(s) at the Site:

- Gasoline Range Petroleum Hydrocarbons (GRPH) and Benzene into Soil;
- GRPH and Benzene into Groundwater.

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 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.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial action(s):

1. HydroCon, LLC. (HydroCon), *Environmental Summary Report*. December 1, 2017.
2. HydroCon, *Response to Ecology Request for Additional Information on Cleanup under the VCP for the John's Shell Site.* January 24, 2019.
3. HydroCon, *Environmental Site Assessment Work Plan,* January 24, 2019.

These 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.

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

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 abovementioned release(s) at the Site, Ecology has the following comments regarding the proposed HydroCon *Environmental Site Assessment Work Plan (Work Plan)*, dated January 24, 2018:

1. If the additional data show that contaminants of concern exceeding their MTCA Method A Cleanup Levels (CULs) are still present, delineation of the lateral and vertical extent of impacted soil, and potentially groundwater, will be required. For this purpose, Ecology suggests to add step-out boring locations to further characterize the Site. These locations are contingent on observations made during field screening at the proposed Locations HC1 through HC5.

2. In the subsequential assessment report deliverables, please provide cross-sections to show the vertical extent of contamination in soil and groundwater, if present.

3. According to National Hydrography Dataset, there is an unnamed canal/ditch at 300 feet (ft) north of the Site, which is also visible on various internet mapping services. However, this surface feature is not mentioned in the Site Description section of the *Work Plan*. Please verify the information. If the canal/ditch does exist, include it in the discussion as relevant.

4. It is premature to eliminate the soil-vapor pathway. Please assess the soil-vapor pathway when the additional data are available. Please reference the current EPA and Ecology reference documentation pertaining to this pathway[1].

5. In accordance with WAC 173-340-7490, a Terrestrial Ecological Evaluation (TEE) needs to be completed for the Site following characterization of impacted soil and groundwater[2]. Ecology understands that a TEE has been completed and will be submitted along with the site assessment report.

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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[1] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Vapor-intrusion-overview
[2] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation

If you have any questions regarding this opinion, please contact me at (360) 407-7239 or sam.meng@ecy.wa.gov.

Sincerely,

Sam Meng, PhD, PE
Headquarters Toxics Cleanup Program

SM:AF

Enclosure

Enclosure A

Description and Diagrams of the Site

Site Description

Site:
The Site is located at 1410 Ocean Beach Highway, Longview, and is comprised of a single Cowlitz County Parcel no. 1029901 (Figure 1). The Site is located within a mixed-use commercial and residential area in the northwest corner of downtown Longview.

Property Historical and Current Use:
The Site is currently improved with a convenience store, an underground storage tank (UST) system, and a covered fuel dispenser island. The UST system is reportedly installed in 1969 and continues to operate to date. The site only dispensed gasoline until 2005, when one of the gasoline USTs was converted to diesel fuel.

Surface/Storm Water System:
No surface water features are located on the Site. The Columbia River is located approximately 2.8-mile southwest of the Site, while Cowlitz River is about 0.8-mile east of the Site.

It is assumed stormwater is conveyed to the municipal separate storm sewer system operated and maintained under the NPDES Phase Two Municipal Stormwater Permit for the City of Longview.

Soils and Geology:
The soils are Quaternary age alluvial sediments. HydroCon reviewed site borings logs and summarized that soil underneath the Site consist of silts and silty sand to a depth 15 ft below ground surface (bgs).

Groundwater:
Saturated conditions were consistently encountered at about 10 ft bgs when soil borings were advanced. Water level was gauged quarterly in the three groundwater monitoring wells in 2016 and 2017. The modelled groundwater flow direction varies from northeast, east, to west.

Source of Contamination & Contamination Extent:
Impacted groundwater and soil were discovered in July 1991 in soil borings advanced south of USTs. The primary source of contamination reportedly originated from releases due to two loose bolts on a leak detector in an unleaded turbine sump.

In October 1991 Environmental Inspection Service (EIS) conducted an excavation of approximately 140 cubic yards of soil (Figure 2). Four confirmation soil samples (#1 through #4) were analyzed for GRPH and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). Although benzene was not detected in any soil sample, the lab reporting limit was above its CUL. A water sample (#5) collected from the bottom of the excavation pit had elevated levels of GRPH and benzene that are exceeding their CULs, but the sample was determined to be not representing groundwater. A no further action was issued by Ecology for the site in 1992.

In February 2005, 3 Kings Environmental, Inc. (3 Kings) conducted a Phase I and Limited Phase

II Environmental Site Assessment to facilitate a potential property sale. Soil and groundwater samples were collected from ten bore holes (B1-B10; Figure 2), and analyzed as required by MTCA for testing a petroleum release (Table 830-1; WAC170-340-900). GRPH was only detected in a sample from B5; GRPH was determined below its CUL of 90 milligram per kilogram (mg/kg), while benzene is blow the reporting limit of 0.04 mg/kg, which is slightly greater than its CUL of 0.03 mg/kg. Diesel and heavy oil were also analyzed for selected location but were either under detection limit or their CULs. The groundwater collected from B5 contained GRPH at 4,400 microgram per liter (ug/L), but benzene was below laboratory method reporting limit.

In May 2005, 3 Kings collected three soil samples at soil/groundwater interface during installation of three groundwater monitoring wells (MW1 to MW3; Figure 3). The soil sample collected from MW3 had a GRPH concentration of 90 mg/kg, while benzene was not tested since they were under detection limits in the previous study. The monitoring wells were sampled and tested as required by MTCA. Only exceedance was benzene in MW3, which occurred at a level of 14 ug/L.

Groundwater was further monitored on a bi-annual basis from 2010 to 2012 by 3 Kings. Although benzene concertation exceeding CUL was occasionally found, no exceedance was observed for five consecutive sampling events during following quarterly groundwater monitoring performed by HydroCon in 2015 through 2017.

To further delineate possible remaining soil contamination, HydroCon is proposing to advance five soil borings surrounding the current existing monitoring wells (Figure 4). Three soil samples per boring, to be selected depending on field screening, lithologic composition, and depth, will be submitted for analyses. A groundwater sample will be collected from each temporary well that are screened across the vadose and water bearing zone. Soil and groundwater samples will be analyzed for gasoline range-, diesel range- and heavy oil range-petroleum hydrocarbons, and BTEX.

Site Diagrams