



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 21, 2016

MR. ZAHOOR AHMED
R.C. HADREEN COMPANY
217 PINE STREET SUITE 200
SEATTLE, WA 98101

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

- **Name:** Seattle Hilton Hotel Parking Garage
- **Address:** 1301 Sixth Avenue, Seattle, WA 98101
- **Facility/Site No.:** 56642815
- **VCP Project No.:** NW2491
- **Cleanup Site ID No.:** 436

Dear Mr. Ahmed:

Thank you for submitting documents regarding your proposed remedial action for the **Seattle Hilton Hotel Parking Garage** 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 releases at the Site:

- Total petroleum hydrocarbons in the gasoline range (TPH-G), benzene, toluene, ethylbenzene, xylenes (BTEX) and lead into the soil and ground water

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.

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

1. Shannon & Wilson, Inc., 2016. *Hilton Seattle Hotel, Tenth Quarter Groundwater Monitoring Report, Seattle, Washington*. March 15.
2. Shannon & Wilson, Inc., 2015. *Hilton Seattle Hotel, Eighth Quarter Groundwater Monitoring Report, Seattle, Washington*. August 4.
3. Shannon & Wilson, Inc., 2015. *Hilton Seattle Hotel, Seventh Quarter Groundwater Monitoring Report, Seattle, Washington*. March 31.
4. Shannon & Wilson, Inc., 2015. *Hilton Seattle Hotel, Sixth Quarter Groundwater Monitoring Report, Seattle, Washington*. February 10.
5. Shannon & Wilson, Inc., 2014. *Hilton Seattle Hotel, Fifth Quarter Groundwater Monitoring Report, Seattle, Washington*. October 29.
6. Shannon & Wilson, Inc., 2014. *Hilton Seattle Hotel, Fourth Quarter Groundwater Monitoring Report, Seattle, Washington*. August 27.
7. Shannon & Wilson, Inc., 2014. *Hilton Seattle Hotel, Third Quarter Groundwater Monitoring Report, Seattle, Washington*. May.
8. Shannon & Wilson, Inc., 2014. *Hilton Seattle Hotel, Second Quarter Groundwater Monitoring Report, Seattle, Washington*. January 17.
9. Shannon & Wilson, Inc., 2013. *Hilton Seattle Hotel, First Quarter Groundwater Monitoring Report, Seattle, Washington*. September 30.
10. Shannon & Wilson, Inc., 2012. *Hilton Seattle Hotel, Cleanup Action Plan, Seattle Washington*. July 18.
11. Shannon & Wilson, Inc., 1998. *Closure Services Related to Hilton USTs, Seattle Washington*. July 15.

12. Shannon & Wilson, Inc., 1998. *Site Assessment Report, Seattle Hilton Hotel, Seattle, Washington*. February.
13. Environmental Associates, 1994. *Soil & Groundwater Sampling and Testing, Hilton Hotel, Underground Storage Tanks, Sixth Avenue and University Street, Seattle, Washington*. December 1.

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) 649-7235 or sending an email to: nwro_public_request@ecy.wa.gov.

The Site is defined by the extent of contamination caused by the following releases:

- Total petroleum hydrocarbons in the gasoline range (TPH-G), benzene, toluene, ethylbenzene, xylenes (BTEX) and lead into the soil and ground water

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 following releases at the Site, Ecology has determined:**

- Ground water sampling over ten consecutive events spaced two to five months apart from 2013 to 2015 indicates that light non-aqueous phase liquid (LNAPL) in the form of gasoline remains measurable in monitoring well MW-5 (as much as 2.33 feet in 2011; 0.10 feet in November 2015). In November 2015, a ground water sample collected in MW-5 contained concentrations of TPH-G of 89,800 micrograms per liter ($\mu\text{g/L}$) and benzene of 1,020 $\mu\text{g/L}$, well above Method A cleanup levels. These levels are close to or exceed the ground water monitoring results obtained in November 2013 when periodic ground water monitoring was first initiated.
- A 2012 Cleanup Action Plan which featured a product recovery system (pneumatic, single-phase skimmer pump) was implemented in November 2012. Operation of the system ended in August 2013. The decrease in measurable LNAPL in MW-5 over time indicates that the system was apparently successful in reducing LNAPL in the formation as represented by subsequent LNAPL measurements in MW-5. Measurable LNAPL was absent in MW-5 in August 2013 following a second rebound test but was again present beginning in May 2014 with a thickness of 0.36 feet.
- No LNAPL has ever been encountered in the three monitoring wells (MW-2, MW-3 and MW-4) located on the Property.

- Collection of ground water samples in wells containing observable and/or measurable LNAPL is not recommended since the analytical results exceeding MTCA cleanup levels are highly predictable. Standard low-flow ground water sampling methods are inadequate for sample collection beneath the LNAPL because dedicated sampling equipment (i.e. tubing) becomes coated as it passes through the LNAPL, thereby most likely entraining product emulsions in the ground water sample. Entrained product increases contaminant loading of ground water samples, and may cross-contaminate or damage water quality parameter field instrumentation such as probe membranes of dissolved oxygen meters.
- In order for the Site to be considered for a No Further Action determination, Ecology requires a Remedial Investigation/Feasibility Study and Cleanup Action Plan along with a minimum of four consecutive quarters of ground water samples below applicable MTCA cleanup levels.
- The development history and use of the Property prior to 1968 are not well-constrained. A parking garage was reportedly constructed on the Property in 1968 and the hotel was constructed in 1970. A 1936 aerial photograph on King County IMAP shows that the Property was developed with a commercial building by that time. The dates that the former Union 76 or earlier gas stations operated on the Property as well as features of the gas station such as the location of former underground storage tanks prior to the two installed in 1970 are needed to determine if additional unidentified sources remain on the Property. This information is also needed for parcels upgradient of the Property where at least one gas station was reportedly formerly located. Environmental due diligence information including historical aerial photographs, historical city directory entries, Sanborn maps, Seattle building department archived drawings, plans and permits, Seattle Fire Department records and information available at the Puget Sound Regional Archives and the King County Department of Developmental and Environmental Services should be obtained and reviewed.
- Please provide Ecology with electronic copies of the ten ground water monitoring reports. Ecology's paper file is missing a copy of the Ninth Quarter Groundwater Monitoring Report which would most likely be dated in the latter part of 2015. A hard copy of that report is also requested. In addition, Ecology requests a copy of a Phase I Environmental Audit report for the Site conducted by Pacific Rim Environmental, Inc. and dated May 1994.

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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.

If you have any questions regarding this opinion, please contact me at by phone at (425) 649-7064 or by email at heather.vick@ecy.wa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Heather Vick", with a stylized flourish at the end.

Heather Vick, LHg
NWRO Toxics Cleanup Program

cc: Peter Shingledecker, Shannon & Wilson, Inc.
Sonia Fernandez, VCP Coordinator, Ecology

