

State of Washington POLLUTION LIABILITY INSURANCE AGENCY 300 Desmond Drive SE • PO Box 40930 • Olympia, Washington 98504-0930 (360) 407-0520 • (800) 822-3905 • FAX (360) 407-0509 www.plia.wa.gov

July 23, 2020

Mr. Dennis Austin Austin Family Properties LLC 6201 S Tacoma Way Tacoma, WA 98409

Re: No Further Action at the Following Site:

- Name: Bucky's Federal Way
- **Property Address**: 30924 Pacific Highway South, Federal Way, WA 98003
- Parcel ID: 785360-0215
- **PTAP Project No:** PNW073

Dear Mr. Austin:

The Washington State Pollution Liability Insurance Agency (PLIA) received your request for an opinion on your independent cleanup of the Bucky's Federal Way (Site).

This letter provides our opinion. We are providing this opinion under the authority of Chapter 70.149 RCW and 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. PLIA 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

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This opinion applies only to the Site located at 30924 Pacific Highway South, Federal Way, WA 98003 and comprises one King County tax parcel described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Properties and Tax Parcels within the Site:

The Property located at 30924 Pacific Highway South, Federal Way, WA 98003 includes the following tax parcel in King County and will be addressed by your cleanup (Fig. 1):

• Tax Parcel No.: 785360-0215

2. Description of the Site:

The parcel(s) makes up the Site and is defined by the nature and extent of contamination associated with the following release (Fig. 2):

• Total petroleum hydrocarbons in the diesel/oil/gasoline range (TPH-d, TPH-o & TPH-g) and associated volatile organic compounds like benzene, ethylbenzene, toluene and xylenes and potentially naphthalene into the soil, groundwater and air/vapor.

Enclosure A includes a diagram of the Site that illustrates the location of the Property within the Site.

3. Identification of Other Sites that may affect the Property.

Please note, a parcel of real property can be affected by multiple sites. At this time, we have no information that this Property (parcel) was affected by other sites.

Enclosure A includes diagram of the Site, as currently known to PLIA.

Basis for the Opinion

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

- Technical Memorandum Sub-Slab Soil Vapor Sampling, October 2019. Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, WA, PNW073. Prepared by ZipperGeo, November 12, 2019.
- Cleanup Action Report. Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, King County, WA. PTAP Site No. PNW073. ZGA Project No. 1973.22. Prepared by ZipperGeo, August 22, 2019.

- 3. Revised Cleanup Action Plan, Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, Washington, ZGA Project No. 1973.22 of July 18, 2018 by ZGA.
- 4. Technical Memorandum, Soil Vapor Assessment, Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, Washington, ZGA Project No. 1973.22 of July 11, 2018 by ZGA.
- Cleanup Action Plan, Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, Washington, ZGA Project No. 1973.22 of June 22, 2018 by ZGA.
- 6. Technical Memorandum, Conceptual Site Model, Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, Washington, ZGA Project No. 1973.22 of June 18, 2018 by ZGA.
- 7. Remedial Investigation, Bucky's Complete Auto Repair, 30924 Pacific Highway South, Federal Way, Washington, ZGA Project No. 1973.22 of May 24, 2018 by ZGA.
- Phase I Environmental Site Assessment Report Bucky's 310th Street 1626 South 310th Street and 31000 Pacific Highway South – Federal Way, Washington 98003; prepared by Partner Engineering and Science, Inc and dated December 29, 2017.
- Limited and Targeted Phase II Subsurface Investigation Austin Family Properties, LLC – 1626 – 310th Street South (30924 Pacific Highway South) – Federal Way, Washington 98003; prepared by Aerotech Environmental Consulting, Inc. and dated February 2, 2018.
- 10. Groundwater Monitoring and Sampling Report, Bucky's Complete Auto Repair February 2019, 30924 Pacific Highway South, Federal Way, Washington 98003; prepared by ZGA, dated February 25, 2019.
- 11. Cleanup Action Report, Bucky's Complete Auto Repair February 2019, 30924 Pacific Highway South, Federal Way, Washington 98003; prepared by ZGA, dated August 22, 2019.
- 12. Environmental Covenant, No. 20200622000316 of 6/22/2020 with King County Auditor Office WA Tax Parcel No. 785360-0215.
- Confirmation Monitoring, Operation, Contingency & Work Plan, Bucky's Federal Way, 30924 Pacific Hwy. S Federal Way, WA 98003. Tax Parcel No. 785360-0215 February 2020.

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Documents submitted to PLIA are subject to the Public Records Act (Chapter 42.56 RCW). To make a request for public records, please email <u>pliamail@plia.wa.gov</u>.

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

Analysis of the Cleanup

1. Cleanup of the Site

PLIA has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

a. Characterization of the Site.

PLIA 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 property is comprised of 0.61 acres and is currently developed with a 5,062 square foot, single-story wood frame structure that is occupied by Bucky's Complete Auto Repair, a hair salon, and a martial arts studio. The Property has been occupied by various auto repair tenants since at least 1972. The property is located within a mixed commercial and residential area in the city of Federal Way, and is situated at an elevation of 469' above mean sea level (Fig. 1).

The western area of the site was redeveloped into a commercial building used as an auto glass shop in the 1960s. The auto glass shop then was used as a Suzuki branded auto dealership and auto service facility. The commercial building and the residence on the property was demolished in 1987, and subsequently redeveloped into the current auto service building. The property then housed an automobile service and repair facility with five service bays from 1988 to 2018 on the western portion of the tax parcel. The eastern portion of the tax parcel has been used as a commercial space and currently houses a martial arts studio and hair salon. The auto repair facility houses three 1,100-gallon USTs. Two of the 1,100-gallon USTs are currently in service, one for new oil and the other for waste oil. The out of service UST formerly housed new oil. A 550-gallon waste oil UST was discovered beneath the customer's lounge. The 550-gallon new oil UST was closed in place, as well as the out of service 1,100-gallon new oil UST.

The property and the surrounding areas are relatively level. According to geologic surveys, the Site and the surrounding areas are underlain by till. The

soil encountered at the Site is comprised of fine sands, dense sands, silty sand, sandy gravels, and dense till.

Groundwater at the Site is present at depths ranging from 20.30' to 24.70' below ground surface (bgs). The direction of groundwater flow is generally to the northwest. Easter Lake is the closest body of surface water to the Site, and is located about 0.2 miles west of the Site (Figs. 1 & 3).

Petroleum contaminated soil (PCS) detected at the Site is associated with the historical use of the Site as an automotive repair facility. MTCA defines a Site as where contamination has come to be located. As for Bucky's Site, it includes the residual PCS at the northeastern and eastern sidewalls of an interim action excavation pit between 3' and 15' bgs, (EX-01-NESW-01-03.0, EX-01-NESW-02-07.5, EX-01-ESW-03-3.0, and EX-01-ESW-02-07.5) south and west of the 550-gallon waste oil UST. Residual PCS underneath the building at the Site are bounded to north and the east by borings B1, B2 and B9 (Fig. 2).

Four groundwater monitoring wells (MW-1 through MW-4) were installed at the Site and monitored for four consecutive quarters to determine if the groundwater at the Site was impacted by the petroleum impacted soils. Petroleum contaminated groundwater (PCGW) was not detected above the MTCA Method A Cleanup levels for four consecutive quarters at the Site (Fig. 3 and Table A2).

Conceptual Site Model (CSM)

i. Soil:

Soils encountered during the subsurface investigation were comprised of fine sands, dense sands, silty sand, sandy gravels and dense till to the maximum depth explored at the Site of 40.5' bgs. The depth and extent of the residual PCS at the Site **above** MTCA Method A cleanup levels (CULs) were detected at EX-01-NESW-01-03.0, EX-01-NESW-02-07.5, EX-01-ESW-03-3.0, and EX-01-ESW-02-07.5 (Fig. 2 and Table A1). PCS detected at the Site **above** the MTCA Method A unrestricted land-use CULs that are located between 10' to 15' are within the depths (0 to 15' bgs) that humans (utility workers and property developers) may come into contact with.

Result: The direct contact exposure pathway was a concern at this Site.

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> **ii. Groundwater:** Depth to the shallow groundwater at the site ranges from 20.30' to 24.70'. Four monitoring wells were installed and sampled prior to the remedial excavation, with no contaminants of concern (COC) detected above MTCA Method A Cleanup levels. No groundwater was encountered during the remedial excavation, but residual PCS remained post-interim excavation at 11' bgs, with a vertical separation of approximately 9' between the residual PCS and the groundwater aquifer.

Result: The soil to groundwater leaching exposure pathway was <u>a concern at this Site.</u>

Vapor Exposure: The property is currently occupied with a Bucky's Complete Auto Repair, a hair salon, and a martial arts studio. The Bucky's Complete Auto Repair is within the lateral inclusion zone of 30' from the edge of the inaccessible residual PCS (EX-01-NESW-01-03.0, EX-01-NESW-02-07.5, EX-01-ESW-03-3.0, and EX-01-ESW-02-07.5), a contaminant source above the MTCA Method A unrestricted land use CULs. The lateral inclusion zone or vertical separation distances are defined as the areas surrounding a contaminant source through which vapor phase contamination might travel and intrude into buildings (ITRC 2018, EPA 2018, Ecology Draft VI Guidance update 2018).

Result: The vapor exposure pathway was a concern at this Site.

iv. Surface water: The closest body of surface water is Easter Lake, which is located approximately 0.2 miles west of the Site.

<u>Result: The surface water exposure pathway is not a concern at this Site.</u>

b. Establishment of cleanup standards.

PLIA has determined the CULs and points of compliance (POC) you established for the Site meet the substantive requirements of MTCA.

i. CULs

Table 1. The COCs and CULs and	'e:
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Contaminants of Concern (COCs)	Soil Cleanup Level mg/kg (<u>Method A)</u> <u>Un-restricted</u> <u>Land Use</u>	Groundwater Cleanup Level ug/l (Method A)	Sub-slab/soil gas Screening Levels ug/m ³ (Method B SL)	Indoor/Air Cleanup Levels ug/m ³ (Method B CUL)
TPH-d/o	2000	500	-	-
TPH-g	30*/100	800*/1000	-	-
Benzene (carcinogen)	0,03	5	10.7	0.321
Toluene	7	1000	76,000	2290
Ethylbenzene	6	700	15,200	457
Xylenes, -m, -o	9	1000	1,520	45.7
Naphthalene (<u>carcinogen</u>)	5	160	2.45	0.0735
(does <u>not</u> include 1-methyl				
and 2-methyl naphthalene)				
Total Petroleum	-	-	4,700**	140
Hydrocarbon				
APH [EC5-8 Aliphatics]	-	-	90,000	2,700
APH [EC9-12 Aliphatics]	-	-	4,700	140
APH [EC9-10 Aromatics]	-	-	6,000	180

*When benzene is present

** Based on the current attenuation factor of 0.03.

Table 2:

Contaminants	Soil Cleanup
of	Level mg/kg
Concern	(<u>Method B)</u>
(COCs)	<u>Direct Contact</u>
*Total TPH	2,151

*Zipper Geo Associates completed extractable petroleum hydrocarbons – volatile petroleum hydrocarbons (EPH-VPH) analyses and established a MTCA Method B cleanup level for the Site. Results of EPH-VPH analyses indicated TPH concentrations protective of direct contact ranging from 1,644 parts per million (ppm) to 2,233 ppm, with the intermediate concentration of 2,151 ppm, which was selected as the MTCA Method B CUL. Mr. Austin July 23, 2020 Page **8** of **30**

ii. POC.

The proposed POC are:

Soil-Direct Contact: For CULs based on human exposure via direct contact, the standard POC is: "*…throughout the Site from ground surface to 15 feet below the ground surface.*" This is in compliance with WAC 173-340-740(6)(d) and represents a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface as a result of Site development activities.

Groundwater: For groundwater, the standard POC 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: CULs need to be attained in the ambient air throughout the Site, including indoor air (WAC 173-340-750[6]).

c. Past Remedial Actions at the Site.

PLIA has determined past remedial actions conducted at the Site **have been sufficient** to meet cleanup standards (CULs at the POC).

2017: Aerotech Environmental Consulting, Inc. performed a Phase I investigation at the Site to identify potential environmental concerns that could be impacting the Site. The Phase I identified a suspected waste oil UST beneath the customer's lounge, in addition to the three in use USTs that are part of the business operations at the Site.

2018: Aerotech Environmental Consulting, Inc. performed a Phase II Limited and Targeted Subsurface Assessment at the Site exploring the areas of concern identified in the Phase I Site Assessment. Nine borings were advanced in the vicinity of the USTs at the Site to a maximum depth of 10.5' bgs. Contamination consisting of diesel range hydrocarbons was detected in the soil west of the building between 2' and 4' bgs, suspected as a release from the 550-gallon waste oil UT discovered beneath the customer lounge.

In April 2018, ZipperGeo Associates LLC performed a remedial investigation at the Site. Impacted soils were discovered to the west of the building at the Site, ranging from depths of 2.5' bgs to 16' bgs. Gasoline and diesel range hydrocarbons were encountered in the subsurface, suspected to have been part of a release from the 550-gallon waste oil UST beneath the customer's lounge area. The highest concentration of TPH-d detected at the Site was 5,600 mg/kg in soil sample B7, above the MTCA Method CUL of 2,000 mg/kg TPH-d. Soil samples obtained from the soil in vicinity of MW-1 detected the highest concentration of gasoline in the soil, at a concentration of 890 mg/kg TPH-g, above the MTCA Method A CUL of 100 mg/kg TPH-g for gasoline without benzene present at the Site.

Groundwater was encountered in four borings during the remedial investigation, and these borings were developed into monitoring wells MW-1, MW-2, MW-3, and MW-4. Quarterly monitoring of the wells indicated variable groundwater flow direction that alternated between southeast, north-northwest and south-southwest. The high variability in flow direction is attributable to the perched aquifer conditions and varying permeability in the glacial till soils, varying hydraulic heads, and effects of seasonal fluctuations in groundwater elevations. The depth to groundwater in these wells ranged from 20.30' to 28.92' bgs. The monitoring wells were sampled at the Site during the remedial investigation for all waste oil COCs. No COCs were detected above the MTCA Method A CULs for groundwater at the Site. TPH-d was detected above the laboratory practical quantitation limits in monitoring wells MW-1 and MW-3, but below the MTCA Method A CUL of 500 µg/L for TPH-d in groundwater. Using soil analytical data obtained during the remedial investigation, a Site Specific Method B soil CUL was calculated using a EPH-VPH analysis to determine carbon fractions present in the petroleum hydrocarbons present. The Method B calculation resulted in a direct contact pathway cleanup level of 2,151 mg/kg for petroleum hydrocarbons.

2019: In July 2019, ZipperGeo Associates, LLC oversaw a remedial excavation performed to the extent technically practicable by Lloyd Enterprises (Figs. 2, 4 & 5 and Tables A-1 & A-2). ZipperGeo Associates, LLC performed field screening and sample collection during the remedial excavation in order to determine correct waste profiling for the PCS at the Site. The excavation measured approximately 28' east-west, 33' north-south and to a depth of 19' bgs. A total of 553.25 tons of contaminated soil was removed from the excavation and transported to Republic Services Transfer station in Seattle, WA, with eventual transport to the Roosevelt Regional Subtitle D Landfill in Roosevelt, WA. Groundwater was not encountered during the remedial excavation. Inaccessible residual PCS remains postexcavation at the Site underneath the western portion of the Bucky's Auto Repair building. The contaminated soil remains in place underneath an asphalt cap from depths of 3' bgs to 15' bgs. The concentration of PCS remaining at the Site ranged from 2,220 mg/kg to 7,580 mg/kg, above the calculated Site Specific Method B CUL of 2,151 mg/kg and the Method A Unrestricted Land Use CUL of 2,000 mg/kg.

Groundwater monitoring was performed at the Site in the four monitoring wells from April 2018 to February 2019. All monitoring wells detected COCs as below the laboratory practical quantitation limits (non-detect) or below the MTCA Method A CUL for groundwater.

On June 22, 2019, prior to the remedial excavation, ZipperGeo Associates, LLC installed three sub slab vapor pin locations in the customer's lounge area located in the western portion of the building (Fig. 2 & Table A-3). The vapor samples obtained prior to the remedial excavation detected Total APH and benzene in the sub slab vapor that was above the Method B Screening levels. VP02 detected the highest concentration of APH at a concentration of 7,341 μ g/m³ above the Method B Screening Level of 4,700 μ g/m³. VP03 detected the highest concentration of benzene in the sub slab vapor at a concentration of 170 μ g/m³ above the Method B Screening Level of 10.7 μ g/m³.

On July 23, 2019 ZipperGeo Associates LLC returned to the Site to perform vapor performance sampling. All three vapor sampling locations detected COCs under the MTCA Method B Screening levels post remediation. On October 16, 2019 ZipperGeo Associates LLC performed the second round of sub slab vapor performance sampling at the Site. The three vapor sampling locations detected COCs below the MTCA Method B screening level.

d. Selection of cleanup action.

PLIA has determined the cleanup action you selected for the Site, meets the substantive requirements of MTCA.

- Decommissioned the former 550-gallon used oil UST in place.
- Excavated and removed about 553.25 tons of PCS at the Site below Method A to the extent technically practicable.
- Calculated a Site Specific Method B Cleanup level for direct contact.
- Conducted confirmation soil sampling to confirm effectiveness of the remedial action.
- Conducted groundwater and vapor quality performance monitoring to confirm effectiveness of the remedial action.
- Contained residual PCS at the Site beneath the building foundation and asphaltic materials (Fig. 2): Environmental Covenant, No. 20200622000316 of 6/22/2020 filed with King County Auditor Office, Tax Parcel No. 785360-0215 (Enclosure B).
- Developed PLIA-approved Confirmation indoor/outdoor air testing and Contingency Work Plan to address vapor concerns and to ensure the effectiveness of the containment remedy of the asphaltic materials **(Enclosure C.)**
- Developed Inspection and Engineering Checklist, approved by PLIA, as part of the Containment remedy for the residual PCS left behind

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and to ensure the integrity and maintenance of the confining material (asphaltic material) pending the 5 yr. Review **(Enclosure D)**.

• Corresponded with the Land Development Authority concerning the Proposed Environmental Covenant as part of the Site Closure **(Enclosure E).**

e. Cleanup.

PLIA has determined the cleanup action you performed meets the substantive requirements of MTCA and met CULs at the POC.

i. Soil Direct Contact Exposure Pathway:

The soil cleanup action included:

- a. Decommissioning of former waste oil USTs.
 - Decommissioning of the former 550-gallon waste oil UST in place.
- b. Excavation and removal of 553.25 tons of PCS at the Site:
 - The lateral and vertical extent of PCS detected at the Site was successfully excavated to the extent technically practicable up to 19' bgs. Inaccessible PCS due to structural limitations were documented in an Environmental Covenant outlining the institutional control in vicinity of the residual PCS.
- c. POC: The limit of the excavation and the POC is bounded by the extent of PCS confirmation sampling results below CULs (Fig. 2 and Table A-1). The residual PCS below CUL is bounded by the POC to the northwest by sampling points EX01-NWSW-02-07.5, EX-NWSW-04-15.0, EX01-NWSW-06-03.0, EX01-NWSW-08-11.0, and EX01-NWSW-09-07.5. To the west, by EX01-WSW01-07.5. To the southwest, by EX01-SWSW-01-03.0, EX01-SWSW-04-07.5, EX01SWSW05-11.0, and EX01-SWSW06-15.0. To the southeast, by EX01-SESQ-01-0.3.0, EX01-SESW-02-07.5, EX01-SESW-03-11.0, and EX01-SESW-04-15.0. To the east, by EX-01-ESW-03-15.0. To the northeast, by EX01-NESW-01-11.0 and EX01-NESW-04-15.0. The base of the excavation is bound by EX01-EB-01-19.0, EX01-NB-01-16.0, and EX01-SB01-17.0.

Data show that inaccessible residual PCS remains at the Site above the MTCA Method A CULs and the calculated MTCA Method B CUL for direct contact. The PCS was detected at samples EX01-NESW-01-03.0 (3,800 mg/kg), EX01-NESW-02-07.5 (7,580 mg/kg) EX01-ESW-03-03.0 (5,150 mg/kg), EX01Mr. Austin July 23, 2020 Page **12** of **30**

ESW-02-07.5 (3,320 mg/kg), EX01-ESW-03-11.0 (2,220 mg/kg). The residual PCS is bound by characterization samples B-9, B-1, B-2B, and B2 that were advanced to the east of the residual PCS.

Analytical results of soil samples collected from the excavation and sampling below the customer's lounge were either nondetect or below MTCA CULs (performance sampling result) (Fig. 2 and Table A-1).

The inaccessible residual PCS above the Methods A and B west of the Property will be managed under an institutional control filed under an Environmental Covenant, No. 20200622000316 of 6/22/2020 with King County Auditor Office Tax Parcel No. 785360-0215 (Exhibit B).

<u>Result: The soil direct contact exposure pathway is no</u> <u>longer a concern at this Site.</u>

ii. Groundwater Leaching Exposure Pathway:

The groundwater cleanup action included:

- **a.** Excavation and removal of 453 tons of PCS.
- **b.** Groundwater Monitoring to illustrate the direct contact to groundwater leaching pathway is incomplete as well as sufficient vertical separation from the residual PCS and the groundwater table (Fig. 2 & Table A-1): The limit and extent of PCGW is bounded by the groundwater monitoring wells sampling results below CULs for four consecutive quarters at the POC wells. For groundwater, impacts associated with petroleum at this Site is based on standard POC for the following wells: MW-1, MW-2, MW-3, and MW-4. The groundwater performance sampling results for four consecutive quarters were below the Method A CULs (Fig. 2 and Table A-2).

<u>Result: The groundwater leaching exposure pathway is no</u> <u>longer a concern at this Site.</u>

- **iii. Vapor Exposure:** The vapor exposure pathway cleanup action included:
 - Assessment of the baseline air quality at the Site was conducted by sampling the subsurface vapor prior to initiating the remedial excavation. The three vapor sampling points detected air phase hydrocarbons and benzene above the MTCA Method B screening levels (Table A-3).

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- Two discrete iterations of sub slab vapor sampling were performed <u>post excavation</u>. VP01, VP02 and VP03 resulted with detections below the laboratory practical quantitation limits or below the MTCA Method B screening levels (Fig. 2 and Table A-3).
- Because inaccessible residual PCS above the Methods A and B is present west of the Property, vapor confirmation sampling and contingency plan (Enclosure C) is presented under an institutional control filed under an Environmental Covenant Environmental Covenant, No. 20200622000316 of 6/22/2020 with King County Auditor Office, Tax Parcel No. 785360-0215 (Exhibit B).

<u>Result: The vapor exposure pathway is no longer a</u> <u>concern at this Site.</u>

 iv. Institutional Control: Environmental Covenant No. 20200622000316 of 6/22/2020 was filed with King County Auditor Office, Tax Parcel No. 785360-0215, per WAC 173-340-440 in support of the Engineered Control to manage the residual PCS and vapors at the Site as depicted in Figs. 2, 4 & 5 (Enclosure B).

Post-Cleanup Controls and Monitoring

Post-cleanup controls and monitoring are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

1. Compliance with institutional controls.

Institutional controls prohibit or limit activities that may interfere with the integrity of engineered controls or result in exposure to hazardous substances. The following institutional controls are necessary at the Site:

- No digging or drilling at the west part of the building foundation and the adjacent asphalt material (Figs. 2, 4 & 5) that act as a cap to contain the residual PCS left behind after the cleanup action.
- The floor cement foundation and the adjacent area capped with asphalt material shall be inspected for cracks and repairs using the PLIA-approved Engineered Control Inspection Checklist **(Enclosure D)**.
- The Inspection frequency and reporting are specified in the Confirmation Monitoring and Contingency Plan of this No Further Action (NFA) determination **(Enclosure C)**.

To implement these controls, Environmental Covenant, No. 20200622000316 of

6/22/2020 was filed with the King County Auditor Office, Tax Parcel No. **785360-0215.**

PLIA approved the recorded Environmental Covenant attached to this NFA determination as **Enclosure B.**

2. Operation and maintenance of engineered controls.

Engineered controls prevent or limit movement of, or exposure to, hazardous substances. The following engineered control is necessary at the Property:

- The <u>cement floor foundation</u> and <u>adjacent asphalt capped area</u> act as a barrier that encapsulates the residual hazardous materials left behind.
- You must conduct periodic inspection to ensure the integrity of the concrete slab foundation that confines the residual PCS at this Property as part of the cleanup action.

PLIA approved the Engineered Control Inspection Checklist attached to this NFA determination as **Enclosure D.**

3. Performance of confirmational monitoring and Contingency.

Confirmational vapor monitoring is necessary at this Site to confirm the longterm effectiveness of the cleanup action. The monitoring data will be used by PLIA during periodic reviews of post-cleanup conditions. PLIA approved the confirmation monitoring & contingency plan for the vapor and Inspection (**Enclosure C**).

The following vapor probes, VP-1, VP-2 and VP-3 (Fig. 2) makeup the vapor confirmation monitoring program regime for this Site. PLIA approved the vapor Conditional Points of Compliance (CPOC) for this Site depicting their various functions as presented in Table 3.

Monitoring Vapor#	Function	Comments
VP-1	Conditional Point of Compliance	Vapor Sentry Warning Basis for Site Closure/NFA Rescission/Re- opener
VP-1	Conditional Point of Compliance	Vapor Sentry Warning Basis for Site Closure/NFA Rescission/Re- opener
VP-3	Conditional Point of Compliance	Vapor Sentry Warning Basis for Site Closure/NFA Rescission/Re- opener

Table 3: CPOC & Confirmation Vapor Probes and Functions.

In the event that the sentry soil vapor probes (VP-1 through VP-3) depicted in Table 3 and Fig. 2 show vapor impact above the vapor screening levels (Table 1), indicating vapor migration from the residual PCS, an indoor vapor confirmation sampling will be required. You must submit an indoor and ambient vapor assessment work plan to PLIA for review and approval. In the event that the indoor air vapor assessment fails indoor air Method B cleanup levels as presented in Table 1, a contingency response action discussed below is triggered.

Table 4 below outlines the frequency of the confirmation monitoring regime governing the institutional control at this Site. <u>Failure to conduct the necessary</u> <u>inspection and vapor monitoring and maintenance of the engineered controls and</u> <u>reporting is sufficient basis to rescind this NFA determination.</u>

Contingency Plan

The monitoring data will be used by PLIA during periodic reviews of post-cleanup conditions. In the event that the **indoor air fails (Table 1 of the above)** and upon <u>PLIA approving a contingency action</u>; PLIA shall rescind the NFA pending completion of further action and conducting a performance indoor air sampling as outlined in the above, **Table 3**, to support re-issuance of an NFA pending the next 5-Yr. review.

2020	2021	2022	2023	2024	2025
2020 Quarterly groundwater sampling cycle (Four quarters) completed. Semi- Annual Vapor	2021 Begin Semi- Annual Inspection and O&M of engineering controls. Annual Report	2022 Begin Semi Annual of Vapor Sampling Semi - Annual Inspection and O&M of	2023 Continue Semi - Annual Inspection and O&M of engineering controls. Annual Report	2024 Continue Semi Annual of Vapor Sampling Semi - Annual Inspection and O&M of	2025 5yr. Review; Assesses need for sampling reduction/cessation/ continuation/ or Contingency for Further Action (<u>Basis</u> for the NFA Re- peneng/register)
Performance Sampling completed. Basis for NFA Determination		engineering controls. Annual Report		engineering controls. Annual Report	opener/rescission) -Contingency may occur at any period of monitoring

Table 4: Frequency and Duration for the Confirmation Sampling Pending the5-Yr. Review:

Reporting and Record Keeping

Outcome of all <u>records</u> associated with vapor and Inspections, Repairs, etc. associated with this Operation and Maintenance (O&M) Program (**Enclosure E**) must be sent to PLIA within 30 days of finalizing the records.

Periodic Review of Post-Cleanup Conditions

PLIA will conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If we conduct a periodic review and determine further remedial action is necessary at the Affected Property, then we will withdraw any NFA determination made at this Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Under the MTCA, liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release(s) of hazardous substances at the Site. This opinion **does not:**

- Change the boundaries of the Site.
- 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 the Office of the Attorney General and the Department of Ecology (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 the 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 equivalent. Courts make that determination (RCW 70.105D.080 and WAC 173-340-545).

3. State is immune from liability.

The state, PLIA, 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.

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Termination of Agreement

Thank you for choosing to cleanup your Property under the PLIA Petroleum Technical Assistance Program (PTAP). This opinion terminates the PTAP Agreement governing Project #PNW073.

Contact Information

If you have any questions about this opinion, please contact us by phone at 1-800-822-3905, or by email at <u>nnamdi.madakor@plia.wa.gov</u>.

Sincerely,



Nnamdi Madakor, P. HG, P.G., Technical Programs Manager

Nm: nm

- Enclosure A: Figure 1: Site Vicinity Map
 - Figure 2: Remedial Excavation, Soil POC, and Vapor Sampling Locations
 - Figure 3: Groundwater Flow Direction Map
 - Figure 4: Site Cross Section A-A'
 - Figure 5: Site Cross Section B-B'
 - Table A-1: Soil Confirmation Analytical Data
 - Table A-2: Groundwater Performance Analytical Data
 - Table A-3: Vapor Performance Analytical Data
- Enclosure B: Environmental Covenant
- Enclosure C: Confirmation Monitoring & Contingency Plan
- Enclosure D: Engineered Control Inspection Checklist
- Enclosure E: Response from the City Land Planning & Development Authority regarding the Proposed Environmental Covenant
- cc: Mr. Greg McKenna, 310th & Pacific HWY South Retail LLC (via email)
 - Mr. Sean Donnan, Zipper Geo Associates (via email)
 - Ms. Carrie Pederson, PLIA (via email)
 - Ms. Kristin Evered, PLIA (via email)

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Enclosure A Bucky's Federal Way Site PTAP Project No. PNW073

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Figure 1: Site Vicinity Map





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Table 2: Analytical Summary Table - Soil Bucky's Complete Auto Repair ZGA Project No. 1973.22

				Total P	etroleum	Hydroc	arbons		BTEV (me/bel	
					(mg/	(kg)				19 19	
Sample Location	Sample Depth (feet below ground)	Sample ID	Date of Collection	D-HdT	O-H4T	0-HdT	Total TPH	əuəzuəg	anaukoT	ənəznədiyitə	zənəlyX listoT
	3.0	EX01-NWSW-01-03.0	7/16/2019	100	3,300	<250	3,400	<0.02	<0.02	<0.02	0.074
	7.5	EX01-NWSW-02-07.5	7/16/2019	9.3	180	<250	189.3	<0.02	<0.02	<0.02	<0.06
	15.0	EX01-NWSW-04-15.0	7/17/2019	S	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
NW sidewall	3.0	EX01-NWSW-06-03.0	7/18/2019	S	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
	7.5	EX01-NWSW-07-07.5	7/18/2019	130	6,800	<250	6,930	<0.02	<0.02	<0.02	<0.06
	11.0	EX01-NWSW-08-11.0	7/18/2019	250	960	<250	1,210	<0.02	<0.02	0.23	0.37
	7.5	EX01-NWSW-09-07.5	7/19/2019	S	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
W sidewall	7.5	EX01-WSW01-07.5	7/19/2019	S	<50	<250	<250	<0.02	<0.02	<0.05	<0.06
	3.0	0'E0-T0-MSMS-T03'0	7/18/2019	s	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
CW ridowell	7.5	EX01-SWSW-04-07.5	7/18/2019	Ŷ	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
IPMADIS ACC	11.0	EX01-SWSW05-11.0	7/18/2019	S	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
	15.0	EX01-SWSW06-15.0	7/18/2019	S	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
	3.0	EX01-SESW-01-0.3.0	7/16/2019	24	450	<250	474	<0.02	<0.02	<0.02	<0.06
SE cidourall	7.5	EX01-SESW-02-07.5	7/16/2019	94	370	<250	464	<0.02	<0.02	0.054	0.13
	11.0	EX01-SESW-03-11.0	7/17/2019	65	440	<250	505	<0.02	<0.02	0.077	0.14
	15.0	EX01-SESW-04-15.0	7/18/2019	290	1,200	<250	1,490	<0.02	<0.02	0.34	0.58
	3.0	EX01-ESW-03-03.0	7/16/2019	550	4,600	<250	5,150	<0.02 j	<0.1	0.40	0.92
E cidewoll	7.5	EX01-ESW-02-07.5	7/16/2019	530	2,700	<250	3,230	<0.02 j	<0.1	0.51	1.0
	11.0	EX01-ESW-03-11.0	7/17/2019	320	1,900	<250	2,220	<0.02	0.029	1.3	1.40
	15.0	EX01-ESW-04-15.0	7/18/2019	130	1,800	<250	1,930	<0.02	<0.02	0.25	0.26
	3.0	EX01-NESW-01-03.0	7/16/2019	006	2,900	<250	3,800	<0.02 j	<0.1	1.0	2.1
	7.5	EX01-NESW-02-07.5	7/16/2019	280	7,300	<250	7,580	<0.02	<0.02	0.39	0.68
NE SIGEWAII	11.0	EX01-NESW-03-11.0	7/17/2019	360	420	<250	780	<0.02	<0.02	0.81	2.0
	15.0	EX01-NESW-04-15.0	7/18/2019	100	840	<250	940	<0.02	<0.02	0.075	0.1
Dottom of	19.0	EX01-EB-01-19.0	7/17/2019	S	<50	<250	<250	<0.02	<0.02	0.026	<0.06
evenue in o	16.0	EX01-NB-01-16.0	7/17/2019	Å	<50	<250	<250	<0.02	<0.02	<0.02	<0.6
	17.0	EX01-SB01-17.0	7/18/2019	\$	<50	<250	<250	<0.02	<0.02	<0.02	<0.06
	MTCA Method A C	leanup Standard (mg/kg)						0.03	7	9	NE
	MTCA Method	B Cleanup Standard*			2,151 mg	/kg tota	_				

Table A-1: Soil Excavation Confirmation Analytical Data

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WellID	Date	Total Petrol	eum Hydrocar	rbons (ug/L)					VOCs (ug/I	•			Total Metals (ug/L)	Dissolved Metals (ug/L)
		TPH-G	O-H4T	TPH-O	MTBE	EDC	EDB	Benzene	Toluene	Ethylbenzene	m, p-Xylene	o-Xylene	Lead	Lead
	4/6/2018	<100	84 x	<250	4	4	-0.01	<0.35	4	4	2	4		
	5/1/2018	4100	74 x	<350	4	4	4	<0.35	4	Ą	2	4	4	•
1-WW	8/6/2018	4100	8 ≎	<250	4	4	4	<0.35	4	ħ	2	4	4	
	11/7/2018	4180	R	<250	Ą	4	4	-0.35	4	4	2	4	4	4
	2/7/2019	4100	09 2	300	4	4	4	<0.35	4	4	2	4	4	4
	4/6/2018	48	8	<250	Ą	4	-0.01	-0.35	4	4	2	Ą	4	•
	5/1/2018	4100	0/2>	-350	4	4	4	-0.35	4	4	2	4	4	•
COMM	8/6/2018	6 10	ŝ	<250	4	4	4	-0.35	4	4	4	4	55.2*	4
	8/22/2018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	4
	11/7/2018	<100	5 0	<250	4	4	4	-0.35	4	4	4	4	4	4
	2/7/2019	<100	999	300	4	4	4	<0.35	4	4	2	4	4	4
	4/6/2018	<100	56 x	<250	4	4	<0.01	<0.35	4	4	2	4	•	•
	5/1/2018	<100	<70	-350	4	4	4	<0.35	4	4	2	4	4	
MW-3	8/6/2018	<100	8 5	<250	4	4	4	<0.35	4	4	2	4	4	•
	11/7/2018	4100	9 Ş	<250	4	4	4	<0.35	4	4	4	4	4	4
	2/7/2019	400	999	-300	4	4	4	-0.35	4	4	2	4	4	4
	5/1/2018	400	200	<350	4	4	4	-0.35	4	4	2	4	4	•
MMM_M	8/6/2018	400	93 x	<250	4	4	4	<0.35	4	4	2	4	3.14	•
	11/7/2018	4100	\$	<250	4	4	4	-0.35	4	4	4	4	4	4
	2/7/2019	<100	9 9≎	300	4	4	4	<0.35	4	4	2	4	4	4
MTCA Meth Standar	od A Cleanup d (ug/L)=	800/1,000 ¹	200	500	20	5	0.01	5	1000	700	NE	NE	15	15
						ľ	ľ				Í			

Table A-2: Groundwater Performance Analytical Data

Table 1: Analytical Summary Table - Groundwater Bucky's Complete Auto Repair ZGA Project No. 1973.22

Table 1. Summary of Sub-Slab Soil Capor Sampling Results, October 2019 Update Bucky's Complete Auto Repair ZGA Project No. 1973.22

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LEGEND

All results compared to screening levels established under Chapter 70.105D RCW and its implementing regulations, the Model Toxics Control Act, Chapter 173-340 WAC. This table incorporates recent guidance from the Washington State Department of Ecology as presented in Implementation Memorandum No. 18, Petroleum Vapor Intrusion (PVI): Updated Screening Levels, and Assessing PVI Threats to Future Buildings, dated January 10, 2018.

: Sample not analyzed for selected analyte.	: Analyte concentration did not exceed the laboratory reporting limit.	. Analyte concentration detected above laboratory reporting but below
	3.7	11

the MTCA Screening Level. â : Analyte concentration exceeds the MTCA Screening Level. 38

The lower value is applied when both a Cancer and Noncancer screening level are available.

**See Table 4 for calculations of Commercial Modified Method B Cancer Screening Level for Benzene

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Enclosure B: Environmental Covenant

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Enclosure C: Confirmation Monitoring & Contingency Plan

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Enclosure D: Engineered Control Inspection Checklist

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Enclosure E: Response from the City-Land Planning & Development Authority regarding the Proposed Environmental Covenant