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March 23, 2020

Nnamdi Madakor Petroleum Technical Assistance Program Pollution Liability Insurance Agency PO Box 40930 Olympia, Washington 98504-0930

# SUBJECTRemedial Investigation Report Revision 2<br/>Gearjammer Truck Plaza – Diesel & Gasoline Fueling Area<br/>Gearjammer Truck Plaza<br/>2310 Rudkin Road<br/>Union Gap, Washington 98903

Mr. Madakor:

Aerotech Environmental Consulting, Inc. ("Aerotech") has prepared the enclosed *Remedial Investigation Report* which summarizes environmental investigation activities to date at the *Gearjammer Truck Plaza* – *Diesel & Gasoline Fueling Area* ("Site"). Aerotech requests an opinion from the Pollution Liability Insurance Agency's ("PLIA") Petroleum Technical Assistance Program ("PTAP") regarding the investigations associated with the Site regarding the substantive requirements of the Model Toxics Control Act ("MTCA").

The initial revision of the remedial investigation report completed in 2017, presented the Site delineated and proposed steps to address remaining data gaps prior to completing a feasibility study. During the process of evaluating the data gaps, the extent of petroleum release in soil and groundwater expanded to include the Rudkin Road right of way and is currently not defined to the southeast toward Interstate 82 and the Yakima River flood plain.

Aerotech proposes a meeting with PLIA to discuss sampling location options that are logistically feasible for investigating in the ROW of Interstate 82 and the flood plain of the Yakima River that will be acceptable to the PTAP.

Aerotech appreciates your assistance in the matter. Please do not hesitate to contact me at 206-257-4211 with any questions regarding the Site.

Sincerely,

Just Tala

Justin Foslien Senior Licensed Geologist WA #2540 Email: justin@dirtydirt.us

#### **ENCLOSURE**

Aerotech 's *Remedial Investigation Report, Gearjammer Truck Plaza – Diesel & Gasoline Fueling Area*, dated March 23, 2020

#### **REMEDIAL INVESTIGATION REPORT**

Performed at: **Gearjammer Truck Plaza** (Diesel & Gas Fueling Area) 2310 Rudkin Road Union Gap, Washington 98903



March 23, 2020

Anchorage Seattle Portland

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# **Remedial Investigation Report**

Report Version: Revision 2

Site Name:	Gearjammer Truck Plaza – Diesel & Gas Fueling Area
Site Address:	2310 Rudkin Road Union Gap, Washington 98903
Alternate Location Info:	Latitude: North 46° 34' 7.07" Longitude: West 120° 27' 17.15" Yakima County, Washington Parcel Number: 191332-42031 NW1/4 of SE 1/4, Section 32, Township 13 North, Range 19 East

Ecology Facility Site ID No.:	26981244
Cleanup Site No.:	7073
Petroleum Technical Assistance Program	PC006
Project No.:	

Prepared For:

Prepared By:

Justin Foslien Aerotech Environmental Consulting Inc. 13925 Interurban Ave South #210 Seattle, Washington 98168 Manroop Fuel Inc. dba Harmon Fuel, Inc. 513 North 21st Avenue Street B Yakima, WA 98902

Christensen, Inc. 1060 Jadwin Ave, Suite 150 Richland, WA 99352

Signature:

Just Tala

Date: 3/23/20



#### TABLE OF CONTENTS

See	ction		Page
AC	CRONY	MS AND ABBREVIATIONS	III
EX	ECUT	IVE SUMMARY	1
1.	IN	TRODUCTION	3
	1.1.	GENERAL SITE INFORMATION	3
	1.2.	SITE LOCATION/DEFINITION	3
	1.3.	SITE HISTORY	4
	1.4.	SITE USE	5
	1.5.	POTENTIAL SOURCES OF HYDROCARBONS	7
2.	FI	ELD INVESTIGATIONS	8
	2.1.	PREVIOUS ENVIRONMENTAL INVESTIGATIONS	8
	2.2.	ENVIRONMENTAL INVESTIGATION SUMMARY	8
3.	N	ATURAL CONDITIONS	12
	3.1.	SITE GEOLOGY	12
	3.2.	SITE HYDROGEOLOGY	12
	3.3.	SURFACE WATER	13
	3.4.	ECOLOGICAL RECEPTORS	13
4.	C	ONCEPTUAL SITE MODEL	14
	4.1.	SOURCES OF CONSTITUENTS OF CONCERN	14
	4.2.	FATE AND TRANSPORT	14
	4.3.	EXPOSURE PATHWAYS AND RECEPTORS	14
	4.4.	POTENTIAL FUTURE EXPOSURE PATHWAYS AND	
		RECEPTORS	15
	4.5.	SOIL CLEANUP STANDARDS	15
	4.6.	GROUNDWATER CLEANUP STANDARDS	15
	4.7.	CLEANUP STANDARDS FOR INDOOR/AMBIENT AIR, SOIL GAS, SUB-SLAB SOIL GAS	15
	4.8.	CLEANUP LEVELS	16
5.	SU	JMMARY, CONCLUSIONS, AND RECOMMENDATIONS	17
	5.1.	SUMMARY AND CONCLUSIONS	17
	5.2.	RECOMMENDATIONS	17
6.	Ll	MITATIONS	18
7.	R	EFERENCES	19

#### LIST OF FIGURES

Figure 1	Regional Man
I iguic I.	Regional Map

- Figure 2. Neighborhood Map
- Figure 3. Site Plan Parcel Boundaries & Adjoining Areas
- Figure 4. Site Plan
- Figure 5. USGS Topographic Map
- Figure 6. Zoning Map
- Figure 7. Utilities Map Main Building
- Figure 8. Utilities Map Site
- Figure 9. Stormwater Flow Map
- Figure 10. GW Protection Wells, Surface Water Bodies and Geology
- Figure 11. Soil Analytical Results Map
- Figure 12. Groundwater Analytical Results Map
- Figure 13. Soil Vapor Results Map
- Figure 14. Cross Section Location Map
- Figure 15. Cross Section A-A'
- Figure 16. Cross Section B-B' and C-C'
- Figure 17. Groundwater Potentiometric Surface Map 12/03/19
- Figure 18. Rose Diagram
- Figure 19. Conceptual Site Model
- Figure 20. MTCA Site Boundary Map Soil
- Figure 21. MTCA Site Boundary Map Groundwater
- Figure 22. MTCA Site Boundary A-A'
- Figure 23. MTCA Site Boundary B-B' and C-C'
- Figure 24. Downgradient Receptor Map

## LIST OF TABLES

- Table 1.Well Construction Details
- Table 2.Soil Analytical Results
- Table 3.Groundwater Analytical Results
- Table 4.Subslab Vapor Results
- Table 5.MW3 Non-Aqueous Phase Liquid Recovery Data

## APPENDICES

- Appendix A. Legal Description of Property
- Appendix B. Tank System Test Documentation
- Appendix C. Previous Site Activity Summary
- Appendix D. City of Union Gap Water Supply Wells
- Appendix E. Historical Soil Boring Logs
- Appendix F. Field Protocols
- Appendix G. Terrestrial Ecological Evaluation

#### ACRONYMS AND ABBREVIATIONS

Aerotech	Aerotech Environmental Consulting Inc
Actolecti	Actorecti Environmental Consulting, inc
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
bgs	below ground surface
COPCs	Contaminants of Potential Concern
CSID	Cleanup Site Identification Number
CUL	Clean-up Level
DCA	Disproportionate Cost Analyses
Ecology	Washington State Department of Ecology
FSID	Facility Site Identification Number
HVOCs	Halogenated Volatile Organic Compounds
MTCA	Model Toxics Control Act
PLIA	Pollution Liability Insurance Agency
POC	Point of Compliance
РТАР	Petroleum Technical Assistance Program
RI	Remedial Investigation
ROW	Right of Way
TEE	Terrestrial Ecological Evaluation
TPHg	Total Petroleum Hydrocarbon – Gasoline Range
TPHd	Total Petroleum Hydrocarbon – Diesel Range
ТРНо	Total Petroleum Hydrocarbon – Heavy Oil Range
UST	Underground Storage Tank
WAC	Washington State Administrative Code

#### EXECUTIVE SUMMARY

The subject of this remedial investigation report is known as the *Gearjammer Truck Plaza – Diesel & Gasoline Fueling Area*. Aerotech Environmental Consulting, Inc. ("Aerotech") was retained in 2016 by the Property owner to perform environmental investigations, in order to meet the requirements for Site closure specified by the State of Washington Department of Ecology ("Ecology"). This remedial investigation report, addressing diesel-fuel & gasoline impacted soils and groundwater within and adjacent to the diesel fueling area as well as the underground storage tank ("UST") basin area, has been prepared for the current and previous property owners, Manroop Fuel Inc. and Christensen, Inc.

The Property is an irregular-shaped 11.46-acre Parcel of commercial land located on the west side of Rudkin Road in Union Gap, Washington. It was originally developed prior to 1936 as residential and agricultural land at Spring Creek, atop a terrace above the western margin of the broad Yakima River flood plain and associated wetlands, about one mile north of the 1865 Yakima City Goodwin homestead. The current truck plaza was constructed in 1978 and expanded in 1979. Renamed Union Gap in 1917, this area was the original Yakima City settlement, prior to the arrival of the railroad and relocation of the town in the late nineteenth century.

The Property has been developed with two commercial buildings, an 8,800 square foot masonry structure occupied by *Freight Savers Lube and Oil* to the north, and a 15,000 square foot *Gearjammer Chevron Travel Plaza / AM Best Truck Stop* to the southeast. Adjoining to the east is Rudkin Road followed by Interstate 82 and the Yakima River flood plain. A Best Western hotel, an Outback restaurant, and a law office building adjoin to the south. A residential neighborhood adjoins to the north, and a church and WSU satellite building adjoin to the west.

The Main Building is a one-story foundation and slab on grade masonry structure occupied by the *Gearjammer Travel Plaza* store, lounge, sports bar, and restaurant. The main entrance is to the south, where a convenience store shop, a deli sandwich counter, and the main service counter are located. An attached canopy to the northeast protects six diesel fuel dispensers, and a canopy to the south protects four gasoline fuel dispensers. Evidence of the presence of an additional seven former diesel fuel dispensers is visible along the northwest side of the diesel canopy, consistent with architectural plans dated June 1978. An underground fuel tank basin is located to the south, housing four 20,000-gallon tanks (three diesel and one gasoline) and one 10,000-gallon gasoline tank. Sloping gently southeasterly, the site is dominated by asphalt-paved truck parking space to the west and north.

The *Freight Savers Lube and Oil* building ("Lube-Wash Building") is situated along the northern property perimeter. The southern section, with an elongate below-grade mechanic's pit, is operated as an oil change bay. Two truck wash bays to the north are equipped with interior trench drains that discharge to a 2,500-gallon oil-water separator situated west of the building.

In 1979, the Main Building was expanded to the west and north for use as a sports bar and retail space. An 1,100-gallon underground waste oil tank was installed west of the truck lube bay and an 8,000-gallon underground new oil tank was relocated from the Main Building to the same basin at that time. When these tanks were removed in 1995, the Site reported a new oil release associated with tank cleaning operations, and heavy oils were detected at concentrations above Model Toxics Control Act ("MTCA") Method A Clean-up Level ("CUL") for soil at three locations within the open excavation. This release is described as "Event A" The Lube Wash Building and Event A will be addressed in another remedial investigation report addressing this separate release.

In 1998, a 10,000-gallon unleaded gasoline tank was installed at the South UST Basin, and tank system upgrades were completed in accordance with new regulations. The release of diesel and gasoline fuels was reported at that time, when petroleum-impacted soils were discovered above tanks during upgrade operations ("Event C"). Subsequent investigations, including the installation of three groundwater monitoring wells in 1999, indicated the presence of diesel and gasoline fuels in groundwater at

downgradient well, MW3. Floating Non-aqueous phase liquid ("NAPL") also referred to as product, was detected and a total of 34 ounces were recovered from MW3).

Since 2016, Aerotech has investigated the soil and groundwater at the Gearjammer Truck Plaza. These investigations determined diesel-impacted soils present near the water table in the diesel fueling area, and downgradient to the southeast the adjoining truck approach. Associated with these impacts in soil, a dissolved diesel plume also extended from the diesel fueling area to the truck approach. This area previously described as Event B.

The Remedial Investigation ("RI") report completed in 2017 presented the site delineated and planned to evaluate the feasibility of corrective actions based on the investigative data available after addressing acknowledged data gaps in the groundwater and vapor pathways. The Petroleum Technical Assistance Program ("PTAP") approved the RI with conditions in an opinion letter on March 8, 2018. One of the conditions was to reevaluate the use of MW3 as a point of compliance due to the history of product present from 2000-2002.

A new well anticipated to be a clean downgradient point of compliance location was installed at the southeastern Property boundary in 2018. During the installation of monitoring well MW15, field observations noted strong diesel odor present and a soil sample collected from 12 feet below ground surface ("bgs") contained 9,800 milligrams per kilogram of total petroleum hydrocarbon – diesel range. After developing the new groundwater monitoring well, measurable NAPL was observed.

An investigation to identify the source of this NAPL occurred in 2019. Soil samples collected from Soil Borings B81-B83 and B87-B90 advanced along the east side of the UST basin and to the south within the planter contained concentrations of Total Petroleum Hydrocarbon – Diesel Range ("TPHd") above the Method A CUL. After a subsequent investigation within the Rudkin Road Right of Way ("ROW"), soil and groundwater samples confirm the concentrations of diesel originated from the area of MW20 at 12-15 feet below ground surface ("bgs") extending south southeast to the Gearjammer Sign and MW15 and then across Rudkin Road to at least Soil Borings B96 and B97(MW23). There is also the presence of gasoline in soil above Method A CULs at groundwater monitoring well MW15 and B96 and B97(MW23).

#### **Conclusions & Recommendations:**

Based on previous environmental investigation soil and groundwater contain petroleum impacts above acceptable concentrations originating from two areas:

- The Diesel Pump Islands that extend southeast into the Fueling Area Approach, and from
- The Diesel and Gasoline UST Basin extending south and southeast toward the Planter, Gearjammer Sign and reaching across Rudkin Road.

Aerotech recommends submitting this report to the PTAP with a request for opinion on the Site under the substantive requirements of the MTCA. Aerotech acknowledges the need for further delineation of the MTCA Site Boundary to the southeast into the ROW of Interstate 82 and the Yakima River flood plain based on the soil and groundwater concentrations above CULs on the east side of Rudkin Road. Aerotech also recommends meeting with the Pollution Liability Insurance Agency to discuss sampling location options that are logistically feasible for investigating in the ROW of Interstate 82 and the flood plain of the Yakima River that will be acceptable to PTAP.

#### 1. INTRODUCTION

The purpose of this Remedial Investigation ("RI") is to summarize the characterization of the nature and extent of contamination and to present the plan forward to address residual impacts at the Site. Aerotech Environmental Consulting, Inc ("Aerotech") prepared this RI on behalf of the current property owner Manroop Fuel Inc. and previous property owner Christensen, Inc. This information will be submitted to the Pollution Liability Insurance Agency's ("PLIA's") Petroleum Technical Assistance Program ("PTAP") to obtain an opinion regarding the substantive requirements of the Model Toxics Control Act ("MTCA").

#### **1.1. GENERAL SITE INFORMATION**

Site Name:	Gearjammer Truck Plaza – Diesel & Gasoline Fueling Area
Site Address:	2310 Rudkin Road
	Union Gap, Washington 98903
Facility Site Identification Number (FSID):	26981244
Cleanup Site Identification Number (CSID):	7073
PTAP Number	PC006
Project Consultant:	Aerotech Environmental Consulting, Inc.
Project Consultant Contact Information:	Justin Foslien 13925 Interurban Avenue South, Suite No. 210 Seattle, Washington 98168 (206) 257-4211 justin@dirtydirt.us
Current Owner:	Manroop Fuel Inc. dba Harmon Fuel, Inc. William Halsey 513 North 21 <sup>st</sup> Avenue Street B Yakima, WA 98902
Former Property Owner:	Brandon Christensen Christensen, Inc. 1060 Jadwin Ave, Suite 150 Richland, WA 99352
Former Facility Operator:	Chuck Hinckley (Ecology: Identified PLP) SHS, LLC 2310 Rudkin Road Union Gap, Washington

#### **1.2. SITE LOCATION/DEFINITION**

The Property is located within the boundaries of the City of Union Gap, Washington, designated by the address 2310 Rudkin Road (Figures 1 and 2). The Property consists of one assessor tax parcel, identified by Parcel ID 191332-42031, encompassing a nearly rectangular-shaped area located along the west side of Rudkin Road, measuring approximately 850 feet in length and 500 feet in width (Figure 3). The legal description of the parcel is included in Appendix A.

Under MTCA, 173-340-200 Washington Administrative Code ("WAC") the Site is defined by the nature and extent of contamination associated with one or more releases of hazardous substances prior to any cleanup of the contamination. A site is NOT defined by the property or parcel boundary.

The "Site" addressed in this report is described as the *Gearjammer Truck Plaza – Diesel & Gasoline Fueling Area*, including the adjoining Main Building, Diesel Pump Islands, Fueling Area Approach, Underground Storage Tank ("UST") Basin, Planter and Gearjammer Sign, Parking South of the Planter, and Rudkin Road Right of Way ("ROW"). These areas are illustrated on Figure 4.

The MTCA site ("Site") is defined by the extent of release to soil and groundwater as petroleum related hydrocarbons associated with the *Gearjammer Truck Plaza* – *Diesel & Gasoline Fueling Area* located on the *Gearjammer Truck Plaza* parcel.

#### **1.2.1.** SURROUNDING AREA DESCRIPTION:

The Property lies within the City of Union Gap at 2310 Rudkin Road near Interstate 82. Adjacent properties include:

- North: Residential use including single family residences;
- South: Commercial use including a Parking area, Best Western and Outback Steakhouse;
- East: Commercial and Public use including a coffee shop, church, accounting office, and Washington State University Satellite Campus;
- West: Rudkin Road followed by Interstate 82 and the Yakima River flood plain.

#### **1.2.2.** PHYSIOGRAPHIC SETTING/TOPOGRAPHY

The precise Property location is Latitude: North 46 34' 7.07" and Longitude West 120 27' 17.15" as determined by the Washington State Department of Ecology ("Ecology") Environmental Information Management database. The Site elevation is approximately 989 feet above mean sea level. The relevant US Geological Survey topographic sheet is the 2013 7.5-Minute Yakima East Topographic Quadrangle. The Property is located within the boundaries of the City of Union Gap, Washington, designated by the address 2310 Rudkin Road (Figures 1 and 2).

As observed during Site visits and confirmed on the USGS topographic map, the subject Property is generally flat with a surficial drainage towards the southeast, based upon overall Site topography (Figure 5).

#### **1.3. SITE HISTORY**

The Property was originally developed prior to 1936 as residential and agricultural land at Spring Creek, atop a terrace above the western margin of the broad Yakima River flood plain and associated wetlands, about one mile north of the original 1865 Yakima City Goodwin homestead. A residence and several outlying agricultural structures were present within or near the current footprint of the diesel fueling area. The current truck plaza was constructed in 1978 and expanded in 1979. Renamed Union Gap in 1917, this area was the original Yakima City settlement, prior to the arrival of the Northern Pacific Railroad well to the north, and the subsequent relocation of many of the major buildings of the original town to the current location of the central Yakima business district.

The Property has been developed with two commercial buildings, an 8,800 square foot masonry structure occupied by Freight Savers Lube and Oil to the north, and the 15,000 square foot Gearjammer Chevron Travel Plaza / AM Best Truck Stop to the southeast. Adjoining to the east is Rudkin Road followed by Interstate 82 and the Yakima River flood plain. A Best Western hotel, an Outback restaurant, and the East Valley Mall adjoin to the south. A residential neighborhood adjoins to the north;

and a church, a law office, and a WSU satellite building adjoin to the west.

The Main Building is a one-story slab on grade masonry structure occupied by the Gearjammer Travel Plaza store, lounge, sports bar, and restaurant. The main entrance is to the south. An attached canopy to the northeast protects six diesel fuel dispensers, and an attached canopy to the south protects four gasoline fuel dispensers. Evidence of the presence of an additional seven former diesel fuel dispensers is visible along the northwest side of the diesel canopy, consistent with architectural plans dated June 1978. An underground fuel tank basin is located to the south, housing four 20,000-gallon tanks (three diesel and one gasoline) and one 10,000-gallon gasoline tank. Sloping gently southeasterly, the site is dominated by asphalt-paved truck parking space.

The Freight Savers Lube and Oil building ("Lube-Wash Building") is situated along the northern property perimeter. The southern section, with an elongate below-grade mechanic's pit, is operated as an oil change bay, two truck wash bays to the north are equipped with interior trench drains that discharge to a 2,500-gallon oil-water separator situated west of the building.

In 1979, the Main Building was expanded to the west and north to create space for use as a sports bar and retail store. An 1,100-gallon waste oil tank was installed west of the truck lube bay and an 8,000-gallon new oil tank was relocated from the north wall of the Main Building to the Truck-Lube tank basin at that time. When these tanks were removed in 1995, the Site reported a new oil release related to tank cleaning operations, and heavy oils were detected in soils at three locations within the open excavation. The Lube Wash Building is to be addressed in a remedial investigation addressing this separate release.

#### 1.4. SITE USE

Site use has remained unchanged since the time of construction in 1978 and 1979. There are no known current violations to report for the Site.

#### 1.4.1. CURRENT PROPERTY USES AND FACILITIES

The main building on the Property is a one-story irregular five-sided structure situated on concrete slab and foundation at grade, occupied by the Gearjammer Travel Plaza. The main entrance is at the southeastern side of the building, providing access to a service counter, a deli sandwich counter, and a small convenience store shop. Adjoining to the west are restrooms, a full-service restaurant, and the Jammers Sports Bar. To the north, a driver's lounge and a retail store are accessed via a hallway along the east wall (Figure 4). The sports bar and retail store sections are additions, completed in 1979.

Two attached metal-framed canopies extend to the northeast and south. The 8,000 square foot northeast canopy protects six diesel fuel dispensers between CAT Scale® lanes on each end; the west scale is not functional. The 2,000 square foot south canopy protects four double-side fuel dispensers serving automobiles and small trucks.

Southeast of the south canopy is an underground fuel tank basin housing four 20,000-gallon tanks (three diesel and one gasoline) and one 10,000-gallon gasoline tank. The larger tanks were installed in 1978, and the smaller tank in 1998. The product supply piping is corrosion resistant double-walled flexible fiberglass piping upgraded in 1998. The tanks and lines are monitored by an *Incon TS 2001 Tank Sentinel*© *TLS-350* real time Automatic Line Leak Detection system. A copy of recent tank system testing documentation is attached to this report in Appendix B.

Situated along the northern margin of the Property is an 8,800 square foot rectangular-shaped foundation and slab on grade concrete block building occupied by Freight Savers Lube and Oil. In the east central portion of the building is the office and parts storage space. Adjoining to the south is the lube bay with an elongate below-grade mechanic's pit and roll up doors providing ingress and egress at the east and west walls. Adjoining the north side of the office are two bays, each equipped with roll up

doors at the east and west walls. The south bay is used primarily for tire changing and the north bay as a truck and semi wash area. Interior zipper drains discharge via covered trench to an approximately 150 square foot oil-water separator located near the northwestern corner of the building. A 500-gallon above-ground new oil tank is situated near the center of the west wall, confined within a masonry secondary containment area. Several empty or partially empty 55-gallon drums containing spent filters are stored along the adjoining wall. Drums containing accumulated soil cuttings and well development or purge water associated with ongoing environmental operations on Site, are stored along the northern perimeter fence adjoining the oil-water separator.

The western half of the Property is dominated by asphalt-paved overnight parking spaces for semitractor trailer trucks. Access between the Property and Rudkin Road is provided by three driveways along the eastern Property perimeter. A fourth driveway provides access for smaller vehicles to the adjoining Best Western property to the south. Chain link fencing is utilized to secure the south, west, and north property perimeter. Narrow landscaped areas distinguish the southeast and eastern perimeters.

#### **1.4.2. PROPOSED OR POTENTIAL FUTURE SITE USES**

Planned use for the Property is to continue as a truck travel plaza and deli. The parcel is zoned as commercial use and no change in zoning is planned or anticipated (Figure 6).

#### 1.4.3. REGULATORY STATUS

The Site is managed by PLIA under the PTAP. It is designated PC006 and assigned to Nnamdi Madakor. Historical regulatory interaction regarding the Site may be found with the Previous Site Activity Summary in Appendix C.

The latest opinion letter dated March 8, 2018 from the PTAP approved the 2017 RI with the expectations of additional investigation. The next steps were to:

- reevaluate the Method B calculations;
- install points of compliance ("POC") for groundwater and surface water;
- complete analysis of Naphthalene in groundwater for at least one quarter;
- install wells to fill in data gaps outlined in the 2017 RI report;
- reevaluate the area near MW3 as a POC;
- conduct three subslab vapor sampling investigations at locations indicated in the 2017 RI report; and
- conduct a feasibility study including a disproportional cost analysis ("DCA") to select a preferred remedy.

#### 1.4.4. TRANSPORTATION/ROADS

The Site is located west of Rudkin Road, a major two-lane road. Rudkin Road in turn lies immediately west of Interstate 82, a major four-lane interstate highway linking Kennewick, Yakima and Ellensburg, Washington. Highway 97 and Highway 12 share the Interstate 82 right-of-way in this area. The US82-East Valley Road Interchange is situated approximately 1,500 feet south of the Property.

#### 1.4.5. UTILITIES AND WATER SUPPLY

#### 1.4.5.1. SANITARY SEWER:

Sanitary sewer laterals originating at the Main Building to the south, the Lube-Wash Building to the north, and the hotel, restaurant and law offices adjoining the Property to the South, join a 30-inch

Sanitary Sewer Main west of the Main Building. This main utility line traverses the Property from southwest to northeast and exits at the northeast corner of the Property. The main line then discharges to a Pump Station situated at Rudkin Road at approximately 1,200 feet to the north, and from which wastewater is delivered to the Yakima Regional Wastewater Treatment Facility located approximately 4,000 feet north of the Gearjammer Property, at East Viola Street. In accordance with NPDES permit requirements, treated wastewater is discharged to the Yakima River by way of two spillways which then discharge via two spillways into wetlands and a diverted northern segment of the former Spring Creek channel situated approximately 1,600 feet northeast of the Property (Figures 7 and 8).

#### 1.4.5.2. **STORM SEWER:**

Storm Sewer laterals converge toward a manhole situated approximately 120 feet south of the southwest corner of the Main Building. This 8-inch storm water main extends to the south, serving areas occupied by a hotel, law offices, and restaurant, subsequently discharging to a 30-inch pipe situated along the north side of Rainier Place. This pipe also accommodates storm water delivered via an open ditch located west of the west Property perimeter, and which also lies along the east side of South 18<sup>th</sup> Street. The 30-inch main subsequently conveys storm water to the south underneath Rudkin Road and the adjoining Interstate Highway; waters are discharged into the flood plain below at a ditch along the east side of the Interstate (Figure 9). This ditch joins a remnant of Spring Creek to the south, and then the Yakima River approximately 2,800 feet south of the southeast corner of the Gearjammer Property. An independent system of five drains and catch basins arrayed along Rudkin Road between the Gearjammer diesel fueling area and the Outback restaurant, discharges storm water to the Yakima River via the same ditch along the eastern margin of Interstate 82 (Figures 7 and 8).

#### 1.4.5.3. **NATURAL GAS:**

Service enters the Property near the southwest corner of the Main Building via a gas main extending to the south (Figures 7 and 8).

#### 1.4.5.4. **ELECTRICITY AND WATER:**

Service for both water and electricity enter near the southeast corner of the Property in the vicinity of well MW-3 (Figure 8). Water is supplied by the City of Union Gap and is generally withdrawn from relatively deep unconsolidated valley fill aquifers in the Yakima Basin (Figure 10). City of Union Gap well design and well testing records attached as Appendix D.

#### **1.5. POTENTIAL SOURCES OF HYDROCARBONS**

The potential sources of hydrocarbons include UST basin containing gasoline and diesel tanks and the fuel conveyance system including the diesel pump islands and gasoline pump islands (Figure 4).

#### 2. FIELD INVESTIGATIONS

#### 2.1. PREVIOUS ENVIRONMENTAL INVESTIGATIONS

A total of twenty-two groundwater monitoring wells have been completed on-Site to date (Table 1). Monitoring of the groundwater wells has occurred since 1999 (White Shield Environmental, 1999; Sage 2000; 2014; 2015a; 2015b; 2015c; GeoPro, 2009a; 2009b; 2009c; 2010a; 2010b; Aerotech, 2017b; 2017c; 2017e; 2018a; 2018b; 2018c; 2019a; and 2019d).

A total of seven investigations have been completed at the Site and are summarized in the following reports:

- White Shield Environmental, March 11, 1999. Groundwater Assessment Report.
- Aerotech. September 1, 2016. Phase II Limited & Targeted Subsurface Investigation.
- Aerotech. January 5, 2017. Phase III Limited & Targeted Subsurface Investigation.
- Aerotech. October 17, 2017. Remedial Investigation Report Diesel Fueling Area.
- Aerotech. November 19, 2018. Soil Sampling, Groundwater Monitoring Well Installation & Subslab Vapor Sampling Report.
- Aerotech. April 3, 2019. MW15 Source Investigation: Soil Sampling, Groundwater Monitoring Well Installation Report.
- Aerotech. December 13, 2019. Right of Way Investigation & Monitoring Well Installation Report.

A chronological summary of work completed at *Gearjammer Truck Plaza* during the investigations listed above can be found in Appendix C. A summary of historical soil analytical data and historical groundwater analytical data can be found in Tables 2 and 3, respectively. All historical boring logs associated with the Gearjammer Diesel & Gasoline Fueling Area are included in Appendix E. All currently existing wells, soil borings and subslab sampling points are shown on Figure 4. All activities completed by Aerotech have been in accordance with Aerotech Field Protocols (Appendix F).

#### **2.2.** ENVIRONMENTAL INVESTIGATION SUMMARY

Figure 4 illustrates the soil borings, groundwater monitoring wells and subslab vapor sampling points advanced at the Site. The soil, groundwater and subslab vapor sampling analytical results can be found in Tables 2-4 and Figures 10-12.

#### 2.2.1. CONSTITUENTS OF POTENTIAL CONCERN

Constituents of potential concern ("COPCs") based on current and past uses of the Property include the compounds listed in WAC Chapter 173-340-900 Table 830-1 Required Testing for Petroleum Releases. The following table lists COPCs for the Site:

Potential Source	COPCs
Gasoline and Diesel Service Station Tanks and Fuel Conveyance System	<ul> <li>Total Petroleum Hydrocarbons – Gasoline Range ("TPHg")</li> <li>Total Petroleum Hydrocarbon – Diesel Range ("TPHd")</li> <li>Total Petroleum Hydrocarbon – Heavy Oil Range ("TPHo")</li> <li>Benzene, Toluene, Ethyl benzene, and Xylenes ("BTEX")</li> <li>Fuel Additives – Methyl Tert-Butyl Ether, Ethylene Dibromide, Ethylene Dichloride</li> <li>Naphthalene</li> <li>Total Lead</li> </ul>

Based on the laboratory analytical results from environmental activities conducted at the Site, concentrations of TPHg, TPHd and/or Benzene have been detected above MTCA Method A Screening Levels in soil and groundwater samples.

#### 2.2.2. SOIL

Locations of soil samples are depicted on Figure 11. Soil samples have been analyzed for TPHg, TPHd, TPHo, BTEX, fuel additives, naphthalene and lead. Laboratory analytical results indicated TPHg, TPHd and Xylenes above the MTCA Method A Screening Levels. The depths of the soil samples range from 2.5 to 18 feet below ground surface ("bgs"). A summary of laboratory analytical results, sample depth, and sample date for each soil sample submitted for analysis is presented in Table 2.

#### 2.2.3. SURFACE WATER

Surface water has not been evaluated at the Site.

#### 2.2.4. GROUNDWATER

White Shield Environmental installed groundwater monitoring well MW3 in 1999. Aerotech installed twenty groundwater monitoring wells MW4 through MW16 and MW20 through MW26 at the Site between May 2017 and November 2019.

A summary of laboratory analytical results, and sample date for each groundwater sample submitted for analysis is presented in Table 3. Figure 12 also summarizes the groundwater samples collected in 2019.

#### 2.2.5. SEDIMENT

Sediment has not been evaluated at the Site.

#### 2.2.6. AIR/SOIL VAPOR

To evaluate the potential air/soil pathway Aerotech utilized the Modified Approach for Assessing the Vapor Intrusion Pathway for Sites with Petroleum Contamination taken from the *Updated Process for Initially Assessing the Potential for Petroleum Vapor Intrusion - Toxics Cleanup Program Implementation Memorandum no. 14* (Ecology, 2016) and the updated screening levels presenting in *Petroleum Vapor Intrusion (PVI): Updated Screening Levels, Cleanup Levels, and Assessing PVI Threats to Future Buildings: Implementation memorandum no. 18* (Ecology, 2018a.):

- 1) An initial release to the environment occurred based on the previous investigation data and regulatory records did occur;
- 2) No immediate action was necessary;
- 3) Site conceptual model based on characterization data has been completed;
- 4) No other volatile contaminants other than petroleum have been identified;
- 5) No precluding factors are present at the Site;
- 6) The locations of elevated hydrocarbons remain at the Site; occur within areas which are less than 30 feet laterally from the main building at the Site;
- 7) Samples collected at the Site ranged in depth from 2.5 18 feet bgs. The 2.5 6 foot interval samples do not meet the vertical screening distance of 6 ft;
- 8) Therefore, sub-slab vapor samples were collected to evaluate the potential source of petroleum vapor intrusion at the *Gearjammer Truck Plaza*.

On September 24, 2018, Aerotech collected sub-slab vapor samples from SS1-SS3 located in the floor of the main Site building. The installed sub-slab vapor points were approved in the letter from PLIA dated March 8, 2018. The results of the sub-slab vapor samples indicated no concentrations present to pose a threat to indoor air quality (Figure 13). A summary of the results may be found in Table 4.

To further evaluate the potential air/soil pathway, Aerotech proposes the collection of additional subslab vapor samples from SS1-SS3 in the Site building to account for any seasonal variation that may be present at the Site.

#### 2.2.7. INTERIM ACTIONS

In 1998, a 10,000-gallon unleaded gasoline tank was installed at the South UST Basin, and tank system upgrades were completed in accordance with USEPA requirements. A release of diesel fuel and limited gasoline fuel was discovered at that time when petroleum-impacted soils were discovered during the tank upgrade operations. Approximately 120 cubic yards of diesel and gasoline-impacted soils were excavated and transported for off-Site land farming (near SE, NW, Sec 2, T12N, R18E). Assessment of the soils was documented in the *Limited Phase II Environmental Site Assessment Report for the GearJammer Inc, PCS Treatment Facility* (Sage, 2004).

Limited diesel free product (1/8 inch measured in well) was recovered from the downgradient well, MW-3 during the period between 2000 and May 2002 by means of a 1-liter Keck Product Recovery Canister, as documented in a Sage Earth Sciences, Inc. report attached to an Ecology letter dated February 4, 2009. Table 5 presents a tabulation of all product measurements or estimates provided by Sage. A total volume of 33.75 ounces of free product and approximately 20 ounces of a diesel-water mixture were removed from MW-3 through May 2002.

#### 2.2.8. NATURAL RESOURCES/WILDLIFE

A Terrestrial Ecological Evaluation ("TEE") form has been previously completed as part of the previous remedial investigation document (Aerotech, 2017d) and is discussed in Section 3.

#### 2.2.9. CULTURAL HISTORY/ARCHEOLOGY

No information or reports of historical investigations have indicated a need for additional research of Property history or archaeology.

#### 3. NATURAL CONDITIONS

#### **3.1. SITE GEOLOGY**

The Columbia River Basalt Group, a series of folded horizontally deposited lava flows, underlie the basins and form the ridges and bluffs in the area. The valley in which Union Gap lies, filled with fluvial and alluvial gravels and sands, is one of six geologic basins which lie between tectonically folded basaltic ridges aligned roughly west to east, along the western third of the Columbia River Basin. The site lies along the rising southern flanks of the Ahtanum-Moxee Syncline, whose east-west oriented axis lies at the deep central portion of the basin to the north.

The subject property is underlain by Quaternary-Recent Undifferentiated Sedimentary Deposits ("Qsu"), including cobble- and boulder-laden sands and gravels such as those encountered during this investigation. These deposits, varying in thickness from a few feet to many hundreds of feet, are characterized as:

<u>Sedimentary Deposits</u> - Undifferentiated (Qsu): "Recent stream alluvium and Pleistocene glacial and valley-train deposits. Strata are composed of silt, sand, and gravel, which in places exceed several hundred feet in thickness. Deposits partly fill all the valleys and structural basins and form the principal conduits carrying valley underflow. The porosity of these deposits probably ranges from 10 to 40 percent, and their permeability ranges from very low to very high. They provide a very large proportion of the effective ground-water storage that supplies the ground-water component of streamflow, and also serve as important aquifers" (Kinnison and Sceva, 1963).

The Site is dominantly underlain by coarse-grained sediments consisting of silty gravel and sand and poorly-graded gravel and sand to 20 feet bgs, the greatest depth explored.

Boring logs from the Site have indicated the presence of a former stream channel in the southern portion of the Site. The area of the Gearjammer property has paved over the previous location of Spring Creek as shown on the Site Plan in Figure 3. Evidence of a previous channel possibly used by Spring Creek has been observed in several of the boring logs. The deposit consists of a sand or silty sand ranging from 0.5 to approximately 3 or 4-feet thick. A well sorted/poorly graded sand occurred at B94, B95, B96, B97, B98, B99, B100. At boring locations B87, B88, B90 and B91/MW21, there was a deposit of silty sand noted in the logs.

The saturated sand appears to be under some pressure. This is based on the observation of dry material from 8-11 feet bgs at the time of drilling, with the subsequent water elevations post well construction measured at 9 to 10 feet bgs.

Cross sections illustrating subsurface conditions observed at the Site and their location may be found on Figures 14 - 16.

#### **3.2. SITE HYDROGEOLOGY**

Groundwater at the subject Property was encountered during investigations at depths between 9 and 14 feet bgs. It occurs within the coarse-grained sediments consisting of silty gravel and sand and poorly-graded gravel and sand to at least 20 feet bgs.

Groundwater monitoring has been accomplished by means of 2 groundwater monitoring wells constructed by the White Shield Company in 1999 (MW2 & MW3), and an additional 20 wells installed by Aerotech in the Diesel Fueling and UST Basin Areas (MW4 through MW16 and MW20 through MW26).

#### 3.2.1. GROUNDWATER CONDITIONS

Figure 17 illustrates the most recent groundwater potentiometric surface map. Groundwater flow direction has been calculated to the to the east-southeast within the Diesel Fueling Area. Near the UST basin the groundwater flow direction has been calculated to be south-southeast.

The aquifer is shallow and the strata is a relatively uncompressed coarse gravel known regionally for its high hydraulic conductivity. Monitoring events completed in 2019 indicate hydraulic gradients in diesel plume area range from 0.0065 to 0.0085 feet per foot. The gradient in the vicinity of the UST basin ranged from 0.0025 to 0.006 feet per foot (Figure 18).

#### 3.3. SURFACE WATER

The Site is currently covered with a building and concrete/asphalt directly above the petroleum impacted area. In the event of a storm water overflow in the area of the petroleum impacted soil and groundwater, stormwater surface runoff is collected via catch basins and conveyed in subsurface pipes (Figure 9). Further discussion of storm sewer lateral may be reviewed in Section 1.4.5.2. The storm sewer laterals eventually drain to the Yakima River Flood Plain approximately 250 feet east of the Gearjammer Truck Plaza property boundary.

The nearest surface water body is the Yakima River located approximately 1750 feet east-southeast of the southeast corner of the Site (Google Earth, 2020).

#### **3.4. ECOLOGICAL RECEPTORS**

#### 3.4.1. SENSITIVE RECEPTOR SURVEY ANALYSIS

Based on the current layout of the Site, there is potential for surface runoff to transport petroleum hydrocarbons into the Yakima River Flood Plain along Interstate 82.

Figure 10 illustrates the location of water wells used by the City of Union Gap in proximity to the Site The nearest potable water well is located within 1/3 mile northwest of the Site (Health, 2020). Well#5 of the City of Union Gap is an active community system well. The Site is not located within any groundwater well protection areas.

#### 3.4.2. TERRESTRIAL ECOLOGICAL EVALUATION

A TEE Form has been completed for the Site and can be found in Appendix G. The Site qualified for an exclusion from further evaluation based on Point of Compliance and Barriers to Exposure (WAC 173-340-7491(1)(a) and (b)) where:

All contamination is, or will be, at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

All contaminated soil, is or will be, covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

#### 4. CONCEPTUAL SITE MODEL

The conceptual site model is a "conceptual understanding of a site that identifies potential or suspected sources of hazardous substances, types and concentrations of hazardous substances, potentially contaminated media, and actual and potential exposure pathways and receptors." As defined by MTCA WAC 173-340-200. This report has provided details regarding how COPCs were released, the types and extent of constituents detected at the Site, and actual and potential receptors. This section provides a conceptual summary of the detailed information described in the previous sections. Figure 19 presents a graphical representation of the conceptual model for the Site.

#### 4.1. SOURCES OF CONSTITUENTS OF CONCERN

The sources of hydrocarbons on the Site are the releases to soil of COPCs that were stored and distributed by the diesel and gasoline truck stop at the *Gearjammer Diesel & Gasoline Fueling Area* Site. These COPCs occurred via releases from USTs, pipes, and dispensers. These releases were focused in the vicinity of the diesel pump islands, gasoline and diesel USTs and fuel conveyance pipingThe COPCs were released to soil; the hydrocarbons then spread by vapor transport into the vadose zone, by partitioning from soil vapor into groundwater, and by direct leaching to groundwater from saturated soils. The Property is currently utilized as a Chevron-branded gasoline and diesel truck travel plaza with a convenience store, sports bar and restaurant. The surface cover consists of the building footprint, canopy and pump islands, UST basin, and the asphalt and concrete associated with the parking area.

Based on previous environmental investigation at the Site, soil and groundwater contain petroleum impacts above acceptable concentrations originating from two areas (Figures 20 & 21):

- The Diesel Pump Islands that extend southeast into the Fueling Area Approach, and from:
- The Diesel and Gasoline UST Basin extending south and southeast toward the Planter, Gearjammer Sign and reaching across Rudkin Road.

Cross sectional views of these areas are illustrated on Figures 22 and 23.

#### 4.2. FATE AND TRANSPORT

The fate and transport of the COPCs are governed by the specific properties of the constituents and the surrounding environmental conditions at the Site. Hydrocarbons released at the Site biodegrade most rapidly under aerobic conditions. Under aerobic conditions, oxygen acts as an electron acceptor, but under anaerobic conditions naturally occurring organic matter or volatile hydrocarbons can act as the electron acceptor. The shallow water bearing zone is an oxidizing environment where naturally occurring microbes utilize hydrocarbons as a food source and proliferate until anaerobic conditions potentially occur. As a result, the transport of dissolved constituents is limited and concentrations decrease before they reach the Site boundary.

The COPCs were released to soil; the hydrocarbons then spread by vapor transport into the vadose zone, by partitioning from soil vapor into groundwater, and by direct leaching to groundwater from saturated soils.

#### 4.3. EXPOSURE PATHWAYS AND RECEPTORS

The Property is within a commercial use area that includes public streets, businesses, and other commercial activities. The streets and parking lots are covered with asphalt or concrete. Current exposure pathways and receptors are limited to the following:

- Incidental ingestion of surface soils;
- Incidental ingestion of groundwater from leaching of soil:

- Inhalation of indoor air from volatilization of soil;
- Inhalation of outdoor air from volatilization of soil;
- Inhalation of indoor air from volatilization of groundwater; and
- Inhalation of outdoor air from volatilization of groundwater

#### 4.4. POTENTIAL FUTURE EXPOSURE PATHWAYS AND RECEPTORS

Future land use in the area is expected to remain commercial use, therefore the MTCA Method A and B Cleanup Levels are applicable to this Site. No significant changes in zoning are expected in the foreseeable future.

#### 4.5. SOIL CLEANUP STANDARDS

The following pathways are considered for the establishment of soil cleanup levels at the Site:

- Protection of human health via direct exposure using the MTCA Method A Cleanup Levels;
- Protection of ecological receptors, an ecological evaluation is required under MTCA;
- Protection of groundwater resources from COPCs leaching from soil; and
- Protection of indoor air from vapor intrusion from soil containing hydrocarbon concentrations exceeding the MTCA Method A Cleanup Levels.

In developing cleanup levels, the following Site-specific information is relevant:

- The Site and the adjacent properties are currently zoned for commercial use; and
- Soil containing residual COPCs remains on the *Gearjammer Truck Plaza Diesel & Gasoline Fueling Area* Site.

#### 4.6. GROUNDWATER CLEANUP STANDARDS

The following pathways are considered for the establishment of groundwater cleanup levels at the Site:

- Protection of human health via direct exposure using the MTCA Method A Cleanup Levels;
- Protection of ecological receptors, an ecological evaluation is required under MTCA;
- Protection of groundwater resources from COPCs leaching from soil; and
- Protection of indoor air from vapor intrusion from soil containing hydrocarbon concentrations exceeding the MTCA Method A Cleanup Levels.

In developing cleanup levels, the following Site-specific information is relevant:

- The Site and the adjacent properties are currently zoned for commercial use; and
- Groundwater containing residual COPCs is present at the Site.

#### 4.7. CLEANUP STANDARDS FOR INDOOR/AMBIENT AIR, SOIL GAS, SUB-SLAB SOIL GAS

In developing cleanup levels for indoor air, the following Site-specific information is relevant:

- Soil containing residual COPCs remains on the *Gearjammer* property parcel;
- Groundwater containing residual COPCs is present at the Site;
- The main buildings on the property parcel is occupied by workers and patrons at the convenience store, restaurant and sports bar;
- While the facility operates 24 hours a day, there is no evidence of any residential occupational risk as the expected duration for most patrons is a few hours and for workers is 8-12 hours per day; and
- No lodging facilities for truckers are present.

Furthermore, evaluation of soil vapor intrusion from the residual COPCS in soil and groundwater was initiated in 2018 via sub-slab vapor sampling. A planned additional sampling event in March 2020 is necessary to incorporate any seasonal fluctuation of sub-slab vapor. Should a Tier II Vapor Assessment including the collection of indoor air samples, be necessary, then a revised indoor air cleanup value will be submitted.

#### 4.8. CLEANUP LEVELS

Based on the current conditions present at the Site, MTCA Method A is the appropriate Clean-up Level ("CUL") for both soil and groundwater. Standards for vapor in this table are taken from the CLARC Method B sub-slab screening values.

	MTCA Cleanup Levels											
СОРС	Soil – Method A (mg/kg)	Soil – Method B Direct Contact (mg/kg)	Groundwater – Method A (µg/L)	Vapor – Method B Subslab (µg/m3)								
Benzene	0.030	18.2	5	11								
Toluene	7	6,400	1,000	76,000								
Ethylbenzene	6	8,000	700	15,000								
Xylenes	9	16,000	1,000	1,500								
Naphthalene	5	1,600	160	2.5								
TPHg	100a/30b 1,500		800a/1,000b	Varies								
TPHd	2,000	1,500	500	Varies								

a = TPHg soil cleanup level is 30 mg/kg, unless benzene is not detected in the sample, or if toluene, ethylbenzene, and total xylenes constitute less than 1% of the TPHg present in the sample. If these conditions are met, the cleanup level for TPHg may be elevated to 100 mg/kg.

b = 800 mg/L if benzene is present in groundwater; 1,000 mg/L if no detectable benzene in groundwater

#### 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### 5.1. SUMMARY AND CONCLUSIONS

The *Gearjammer Diesel & Gasoline Fueling Area* is a Site located at the Gearjammer Chevron Travel Plaza / AM Beast Truck Stop in the City of Union Gap, Washington at 2310 Rudkin Road. The Gearjammer Property has been operating as a truck stop and travel plaza since 1978.

The Gearjammer Property has been developed with two commercial buildings, an 8,800 square foot masonry structure occupied by Freight Savers Lube and Oil to the north, and the 15,000 square foot Gearjammer Chevron Travel Plaza / AM Best Truck Stop to the southeast. Adjoining to the east is Rudkin Road followed by Interstate 82 and the Yakima River flood plain. A Best Western hotel, an Outback restaurant, and the East Valley Mall adjoin to the south. A residential neighborhood adjoins to the north; and a church, a law office, and a WSU satellite building adjoin to the west.

Based on previous environmental investigation soil and groundwater contain petroleum impacts above acceptable concentrations originating from two areas:

- The Diesel Pump Islands that extend southeast into the Fueling Area Approach, and from
- The Diesel and Gasoline UST Basin extending south and southeast toward the Planter, Gearjammer Sign and reaching across Rudkin Road.

The extent of contamination in soil and groundwater has not been defined as the current MTCA Site Boundary in soil and groundwater indicate on Figures 20 and 21. A downgradient receptor map illustrates potential areas for future investigation to the southeast of Site (Figure 24).

An initial assessment of soil vapor was completed by Aerotech in 2018 that indicated concentrations of vapor below the subslab were below the Method B screening levels. Additional sampling of the subslab vapor sampling points is planned to confirm these results and verify any seasonal variation at the Site.

Based on previous environmental investigation soil and groundwater pathways will require further management to prevent exposure to human health and the environment (Figures 19, 20; 22 and 23). An active cleanup action is necessary to address the product present in groundwater monitoring wells MW3, MW15 and MW20.

To evaluate the remedies appropriate for the management of the MTCA Site, a feasibility study including a DCA to select a preferred remedy will be necessary upon the delineation of the MTCA Site Boundary. The use of the property as a large truck travel plaza dispensing diesel and gasoline is anticipated into the foreseeable future. Therefore, a portion of the remedy chosen will incorporate an environmental covenant to manage the remaining soil and groundwater remaining at the Site above CULs at the Site that is not accessible due to accessibility prevented by property infrastructure and right of way infringement.

#### **5.2. RECOMMENDATIONS**

Aerotech recommends submitting this report to the PTAP with a request for opinion on the Site under the substantive requirements of the MTCA. Aerotech acknowledges the need for further delineation of the MTCA Site Boundary to the southeast into the ROW of Interstate 82 and the Yakima River flood plain based on the soil and groundwater concentrations above CULs on the east side of Rudkin Road. Aerotech also recommends meeting with PLIA to discuss sampling location options that are logistically feasible for investigating in the ROW of Interstate 82 and the flood plain of the Yakima River that will be acceptable to PTAP.

#### 6. LIMITATIONS

For any documents cited that were not generated by Aerotech, the data taken from those documents is used "as is" and is assumed to be accurate. Aerotech does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This report and the works performed have been undertaken in good faith, with due diligence and with the expertise, experience capability and specialized knowledge necessary to perform the Work in a good and workmanlike manner and within all accepted standards pertaining to providers of environmental services, in Washington at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

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• Figures















<b>P</b> -	MAIN
IG	





the south, the Lube-Wash Building to the north, and the hotel, restaurant and law offices adjoining the Property to the South, join a 30-inch Sanitary Sewer Main west of the Main Building. This main traverses the Property from southwest to northeast, and exits at the northeast corner of the Property. The main trunk then discharges to a Pump Station situated at approximately 1,200 feet to the north, from which wastewater is delivered to the Yakima Regional Wastewater Treatment Facility located approximately 4,000 feet north of the Gearjammer Property at East Viola Street. In accordance with NPDES permit requirements, treated wastewater is discharged to the Yakima River by way of two spillways which then discharge into wetlands and a diverted northern segment of the former Spring Creek channel

approximately 120 feet south of the southwest corner of the Main Building. This 8-inch storm water main extends to the south, serving areas occupied by a hotel, law offices, and restaurant, subsequently discharging to a 30-inch pipe situated along the north side of Rainier Place. This pipe also accommodates storm water delivered via open ditch located west of the west Property perimeter, and which lies along the east side of South 18th Street. The 30-inch main subsequently conveys storm water underneath Rudkin Road and the adjoining Interstate Highway; waters are discharged in the flood plain below at a ditch east of the Interstate. This ditch joins a remnant of Spring Creek to the south, and then the Yakima River approximately 3,000 feet south of the southeast corner of the Gearjammer Property. An independent system of five drains and catch basins arrayed along Rudkin Road between the Gearjammer diesel fueling area and the Outback restaurant, discharges storm water to the Yakima River via the same ditch along the eastern

Electricity and Water: Service enters the property near the

Date: 02/25/20

By: Justin Foslien

Figure:

8

































• Tables

## **TABLE 1 : WELL CONSTRUCTION DETAILS**

Gearjammer Truck Plaza

(Diesel Fueling Area)

2310 Rudkin Road

Union Gap, Washington

Well ID	Ecology Well ID	Installation Date	Elevation (TOC north)	Screen Interval	Diameter	Slot Size	Construction Material
			Feet Above MSL	Feet BGS	Inches	Inches	
MW3	AEK 287	03/04/99	991.02	5 - 15	2	0.010	Schedule 40 PVC
MW4	BKY 192	05/05/17	991.60	9 - 19	2	0.010	Schedule 40 PVC
MW5	BKY 191	05/05/17	991.67	10 - 20	2	0.010	Schedule 40 PVC
MW6	BKY 188	05/05/17	991.35	10 - 20	2	0.010	Schedule 40 PVC
MW7	BKY 190	05/04/17	992.53	8 -18	2	0.010	Schedule 40 PVC
MW8	BKY 187	05/04/17	991.84	10 - 20	2	0.010	Schedule 40 PVC
MW9	BKY 185	05/04/17	991.74	8 - 18	2	0.010	Schedule 40 PVC
MW10	BKY 186	05/04/17	992.19	9 - 19	2	0.010	Schedule 40 PVC
MW11	BKY 189	05/04/17	992.25	10 - 20	2	0.010	Schedule 40 PVC
MW12	BKL 121	09/13/18	991.79	8 - 18	2	0.010	Schedule 40 PVC
MW13	BKL 119	09/13/18	991.02	8 - 18	2	0.010	Schedule 40 PVC
MW14	BKL 120	09/14/18	991.81	8 - 18	2	0.010	Schedule 40 PVC
MW15	BKL 122	09/14/18	990.98	8 - 18	2	0.010	Schedule 40 PVC
MW16	BLI 544	03/18/19	990.70	8 - 18	2	0.010	Schedule 40 PVC
MW20	BLI 548	03/22/19	992.33	9 - 19	2	0.010	Schedule 40 PVC
MW21	BLI 549	03/22/19	990.80	8 - 18	2	0.010	Schedule 40 PVC
MW22	BME 637	11/21/19	990.49	10 - 20	2	0.010	Schedule 40 PVC
MW23	BME 638	11/21/19	990.16	10 - 20	2	0.010	Schedule 40 PVC
MW24	BME 639	11/21/19	990.33	9.5 - 19.5	2	0.010	Schedule 40 PVC
MW25	BME 640	11/22/19	990.44	8 - 18	2	0.010	Schedule 40 PVC
MW26	BME 641	11/22/19	991.04	8 - 18	2	0.010	Schedule 40 PVC

#### SOIL ANALYTICAL RESULTS

#### Gearjammer Truck Plaza (Diesel Fueling Area)

2310 Rudkin Road

Union Gap, Washington

#### 1 of 5

Aerotech Environmental Consulting, Inc. - Phase II Limited and Targeted Subsurface Investigation - September 1, 2016

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	МТВЕ	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-20(12')	B-20	08/09/16	12		960											
B-20(15')	B-20	08/09/16	15		<50											
B-21(8')	B-21	08/09/16	8	<5			<0.020	<0.050	<0.050	<0.050						
B-21(12.5')	B-21	08/09/16	12.5	<5			<0.020	<0.050	<0.050	<0.050	<0.005	<0.020	<0.100			<1.0
B-22(10')	B-22	08/09/16	10	<5	<50											
B-23(12.5')	B-23	08/09/16	12.5	<5	<50		<0.020	<0.050	<0.050	<0.050						
B-23(14')	B-23	08/09/16	14		<50											
B-24(4')	B-24	08/09/16	4	<5			<0.020	<0.050	<0.050	<0.050						
B-24(13.5')	B-24	08/09/16	13.5	<5			<0.020	<0.050	<0.050	<0.050	<0.005	<0.020	<0.100			<1.0
B-25(8')	B-25	08/09/16	8	<5			<0.020	<0.050	<0.050	<0.050						
B-25(12')	B-25	08/09/16	12	<5			<0.020	<0.050	<0.050	<0.050	<0.005	<0.020	<0.100			
B-25(14')	B-25	08/09/16	14	<5			<0.020	<0.050	<0.050	<0.050	<0.005	<0.020	<0.100			<1.0
B-26(3')	B-26	08/09/16	3		<50											
B-26(8.5')	B-26	08/09/16	8.5		<50		<0.020	<0.050	<0.050	<0.050						
B-34(4')	B-34	08/10/16	4		<50	<50										
B-34(10')	B-34	08/10/16	10		<50	<50										
B-34(12.5')	B-34	08/10/16	12.5		3,200	<50										
B-34(15')	B-34	08/10/16	15		<50	<50										
N	1TCA Method A 0	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

Aerotech Environmental Consulting, Inc. - Phase III Limited and Targeted Subsurface Investigation - January 5, 2017

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	MTBE	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-35 (12')	B-35	11/29/16	12		<20	<50										
B-35 (14')	B-35	11/29/16	14		400	<50										
B-36 (3')	B-36	11/29/16	3		<20	<50										
B-36 (10')	B-36	11/29/16	10		1,800	<50										
B-36 (11')	B-36	11/29/16	11		29,000	<50										
B-36 (14')	B-36	11/29/16	14		140	<50										
B-37 (11')	B-37	11/29/16	11		8,500	<50										
B-37 (15.5')	B-37	11/29/16	15.5		<20	<50										
N	ITCA Method A C	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

#### SOIL ANALYTICAL RESULTS

#### Gearjammer Truck Plaza (Diesel Fueling Area)

2310 Rudkin Road

Union Gap, Washington

#### 2 of 5

Aerotech Environmental Consulting, Inc. - Phase III Limited and Targeted Subsurface Investigation - January 5, 2017 continued

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	MTBE	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-38 (11')	B-38	11/29/16	11		5,300	<50										
B-38 (16')	B-38	11/29/16	16		<20	<50										
B-39 (3')	B-39	11/29/16	3		<20	<50										
B-39 (12')	B-39	11/29/16	12		1,100	<50										
B-39 (13')	B-39	11/29/16	13		2,100	<50										
B-39 (14')	B-39	11/29/16	14		1,200	<50										
B-39 (16')	B-39	11/29/16	16		<20	<50										
B-40 (3')	B-40	11/29/16	3		<20	<50										
B-40 (12')	B-40	11/29/16	12		<20	<50										
B-40 (13.5')	B-40	11/29/16	13.5		<20	<50										
B-42 (12')	B-42	11/30/16	12		<20	330										
B-42 (16')	B-42	11/30/16	16		<20	<50										
B-43 (14')	B-43	11/30/16	14		7,500	<50										
B-43 (16')	B-43	11/30/16	16		110	<50										
B-44 (12')	B-44	11/30/16	12		9,900	<50										
B-44 (13.5')	B-44	11/30/16	13.5		<20	<50										
B-45 (13.5')	B-45	11/30/16	13.5		<20	<50										
N	ITCA Method A	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

Aerotech Environmental Consulting, Inc. - Definition of Extent of Diesel Plume in Soil and Groundwater Including Monitoring Well Installation - May 31, 2017

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	МТВЕ	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-46 (14')	B-46	04/26/17	14		<25	<50										
B-47 (9.5')	B-47	04/26/17	9.5		190	<50										
B-47 (11')	B-47	04/26/17	11		3,500	<250										
B-47 (17')	B-47	04/26/17	17		<25	<50										<6.8
B-48 (11')	B-48	04/26/17	11		6,300	<250	0.0062	<0.040	<0.041	<0.074				0.93		
B-48 (15')	B-48	04/26/17	15		<25	<50										
B-50 (11')	B-50	04/27/17	11		<25	<50										
B-51 (7')	B-51	04/27/17	7		<25	<50										<6.8
B-51 (11')	B-51	04/27/17	11		<25	<50										
B-52 (11')	B-52	04/27/17	11		4,300	<250	<0.0050	<0.045	<0.046	<0.083				3.6		
N	/ITCA Method A (	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

#### SOIL ANALYTICAL RESULTS

#### Gearjammer Truck Plaza (Diesel Fueling Area)

2310 Rudkin Road

Union Gap, Washington

#### 3 of 5

Aerotech Environmental Consulting, Inc. - Definition of Extent of Diesel Plume in Soil and Groundwater Including Monitoring Well Installation - May 31, 2017 (continued)

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	MTBE	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-52 (12')	B-52	04/27/17	12		2,200	460										
B-52 (15')	B-52	04/27/17	15		<25	<50										<6.8
B-53 (7')	B-53	04/27/17	7		180	1,800										
B-53 (12')	B-53	04/27/17	12		3,300	670										
B-53 (15')	B-53	04/27/17	15		<25	<50										
B-54 (11')	B-54	04/27/17	11		<25	<50										<6.8
B-54 (15')	B-54	04/27/17	15		<25	<50										<6.8
B-55 (3')	B-55	04/27/17	3		<25	<50										
B-55 (11')	B-55	04/27/17	11		<25	<50										
B-55 (12.5')	B-55	04/27/17	12.5		1,600	<50										
B-57 (12')	B-57	04/28/17	12		<25	<50										<6.8
B-58 (2.5')	B-58	04/28/17	2.5		<25	<50										
B-58 (11.5')	B-58	04/28/17	11.5		3,800	<250										
B-58 (15')	B-58	04/28/17	15		<25	<50										
B-59 (7')	B-59	04/28/17	7		<25	<50										<6.8
B-60 (12')	B-60	04/28/17	12		<25	<50										
MW-4 (12')	MW-4	05/05/17	12		2,100	<100	<0.0050	<0.010	<0.010	<0.020						
MW-4 (16')	MW-4	05/05/17	16		<25	<50										
MW-7 (12')	MW-7	05/05/17	12		3,400	<250	<0.0050	<0.010	<0.010	<0.020						<6.8
MW-8 (12')	MW-8	05/04/17	12		<25	<50										
MW-10 (11')	MW-10	05/04/17	11		<25	<50										
MW-11 (13')	MW-11	05/05/17	13		<25	<50										<6.8
N	ITCA Method A (	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

Aerotech Environmental Consulting, Inc. - Soil Sampling, Well Installation, and Subslab Vapor Sampling Report - November 19, 2018

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	МТВЕ	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-36a (11') <sup>B</sup>	B-36a	09/11/18	11		3,800	<250	<0.0050	<0.010	<0.010	<0.020	<0.005	<0.01		<0.020	0.01633	
B-38a (11.5') <sup>B</sup>	B-38a	09/12/18	11.5		920	<250	<0.0050	<0.010	<0.010	<0.020	<0.005	<0.01		<0.020	ND	
B-44a (13') <sup>B</sup>	B-44a	09/11/18	13		620	72	<0.0050	<0.010	<0.010	<0.020	<0.005	<0.01		<0.020	ND	
B-44a (15.5')	B-44a	09/11/18	15		<25	<50										
IV	1TCA Method A (	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

#### SOIL ANALYTICAL RESULTS

#### Gearjammer Truck Plaza (Diesel Fueling Area)

2310 Rudkin Road

Union Gap, Washington

#### 4 of 5

Aerotech Environmental Consulting, Inc. - Soil Sampling, Well Installation, and Subslab Vapor Sampling Report - November 19, 2018 continued

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	МТВЕ	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B-75 (12.5')	MW13	09/10/18	12.5		<25	<50										
B-76 (12.5')	MW12	09/10/18	12.5		<25	<50										
B-77 (12')	MW15	09/11/18	12	380	9,800	<500	0.024	0.45	0.50	2.97	<0.005	<0.01		<0.020	ND	
B-77 (15')	MW15	09/11/18	15	9.8	<25	<50	<0.0050	<0.010	<0.010	<0.020	<0.005	<0.01		<0.020	ND	
B-78 (11')	MW14	09/12/18	11		<25	<50										
N	1TCA Method A (	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

Aerotech Environmental Consulting, Inc. - MW15 Source Investigation: Soil Sampling, Groundwater Monitoring & Well Installation Report - April 3, 2019

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	MTBE	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B79 (11')	MW16	03/18/19	11	<5.0	<20	<50	<0.020	<0.050	<0.050	<0.050						
B80 (11')	B80	03/18/19	11		<20	<50										
B81 (10')	B81	03/19/19	10	<5.0	560	<50	<0.020	<0.050	<0.050	<0.050						
B81 (15')	B81	03/19/19	15	<5.0	6,800	<50	<0.020	<0.050	0.15	0.89						
B81 (16')	B81	03/19/19	16	<5.0	510	<50	<0.020	<0.050	<0.050	0.073						
B82 (12')	B82	03/19/19	12	<5.0	2,600	<50	<0.020	<0.050	0.46	2.5						
B82 (15')	B82	03/19/19	15		120	<50										
B83 (12')	MW20	03/19/19	12	<5.0	4,100	<50	<0.020	1.0	1.9	10						
B83 (15')	MW20	03/19/19	15	<5.0	1,900	<50	<0.020	0.58	1.0	3.8						
B87 (12')	B87	03/21/19	12	<5.0	9,200	<50	<0.020	<0.050	0.24	2.0						
B87 (15')	B87	03/21/19	15	<5.0	110	<50	<0.020	<0.050	<0.050	<0.050						
B88 (12')	B88	03/21/19	12	<5.0	9,400	<50	<0.020	0.10	0.35	2.2						
B88 (15')	B88	03/21/19	15	<5.0	1,400	<50	<0.020	<0.050	<0.050	<0.050						
B89 (12.5')	B89	03/21/19	12.5	<5.0	3,600	<50	<0.020	<0.050	<0.050	0.22						
B89 (15')	B89	03/21/19	15	<5.0	380	<50	<0.020	<0.050	0.14	0.51						
B90 (12')	B90	03/21/19	12	<5.0	4,200	<50	<0.020	<0.050	<0.050	<0.050						
B90 (15')	B90	03/21/19	15	<5.0	1,000	<50	<0.020	<0.050	<0.050	<0.050						
B91 (12')	MW21	03/22/19	12	<5.0	<20	<50	<0.020	<0.050	<0.050	<0.050						
B91 (15')	MW21	03/22/19	15	<5.0	<20	<50	<0.020	<0.050	<0.050	<0.050						
N	ITCA Method A (	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

#### SOIL ANALYTICAL RESULTS

#### Gearjammer Truck Plaza (Diesel Fueling Area)

2310 Rudkin Road

Union Gap, Washington

#### 5 of 5

Aerotech Environmental Consulting, Inc. - Right of Way Investigation & Monitoring Well Installation - December 13, 2019

Sample ID	Soil Boring Well ID	Sampling Date	Sample Depth	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Total Xylenes	EDB	EDC	МТВЕ	Naph- thalene	PAHs	Lead
			Feet BGS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B92(12)	B92	11/19/19	12	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B92(15)	B92	11/19/19	15		<25	<50										
B93(12)	B93	11/19/19	12	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B93(15)	B93	11/19/19	15		<25	<50										
B94(13)	B94	11/19/19	13	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B94(15)	B94	11/19/19	15		<25	<50										
B95(13)	MW22	11/19/19	13	9.5	220	<50	<0.030	<0.050	<0.050	<0.20						
B95(15)	MW22	11/19/19	15	10	180	160	<0.030	<0.050	<0.050	<0.20						
B96(13.5)	B96	11/19/19	13.5		3,600	290										
B96(15)	B96	11/19/19	15	190	1,500	94	<0.030	<0.050	0.15	0.79						
B97(13)	MW23	11/19/19	13	170	2,300	200	<0.030	<0.050	0.083	0.34						
B97(15)	MW23	11/19/19	15	210	1,900	310	<0.030	<0.050	0.084	0.33						
B97(18)	MW23	11/19/19	18	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B98(13)	MW24	11/19/19	13	3.3	<50	1,000	<0.030	<0.050	<0.050	<0.20						
B98(15)	MW24	11/19/19	15	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B99(13)	MW25	11/19/19	13	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B99(15)	MW25	11/19/19	15	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20						
B100(13)	MW26	11/19/19	13		<25	<50										
N	ITCA Method A	Cleanup Levels		30	2,000	2,000	0.03	7	6	6	0.005	0.0232*	0.1	5	0.1^	250

#### **EXPLANATION**

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)

BGS = Below Ground Surface mg/kg = milligram of analyte per kilogram of soil j

< = not detected at indicated Laboratory Detection Limits -- = not analyzed

Benzene , Toluene, Ethylbenzene, Xylenes by EPA Method 8021B

TPHg - Total Petroleum Hydrocarbons - Gasoline by NWTPH-Gx

TPHd - Total Petroleum Hydrocarbons - Diesel by NWTPH-Dx

TPHo - Total Petroleum Hydrocarbons - Motor Oil by NWTPH-Dx extended

EDC = 1,2-Dichloroethane EDB = 1,2-Dibromoethane; by EPA Method 8260B

Napthalene and PAHs - Polycyclic Aromatic Hydrocarbons by 8270 SIM

Lead by EPA Method 7010

Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels for soil

\* = Method B Cleanup Level, Ecology does not have a Method A Cleanup Level designated for EDC

^ = Effective concentration using Toxic Equivalency Factor per WAC 173-340-708{e}: SUM(Benzo(a)pyrene (x1), Benzo(a)anthracine (x0.1), Benzo(b)fluoranthene (x0.1), Benzo(k)fluoranthene (x0.1), Chrysene (x0.01), Dibenz(a,h)anthracene (x0.1), Indeno(1,2,3-cd)pyrene (x0.1)

B = Sample was analyzed for VPH & EPH Fractionation Values and n-Hexane for the purposes of MTCA Method B Calculations

Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

MW2		Installed March 1999	Э														
Well	Sampling	Ground Water	Elevation	Water Level	Product Loval	Product	TDUg	трыд	TDHO	Bonzono	Toluono	Ethyl-	Yulonos	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	FIGURE	Thickness	Tring	IFIL		Delizene	Toluelle	benzene	Aylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	03/05/99	9.21	992.55	983.34			<100	<250	<500	<1.0	<1.0	<1.0	<1.0				
	05/22/00	NM	992.55	NM													
	08/27/09	8.15	992.55	984.40			<100	<250	<400	<1.0	<1.0	<1.0	<1.0				<1.1
	11/11/09	8.45	992.55	984.10			<100			<1.0	<1.0	<1.0	<1.0				
	03/02/10	8.42	993.55	985.13			<100	<250	<400	<1.0	<1.0	<1.0	<1.0				<1.1
	05/20/10	8.99	993.55	984.56			<100	<260	<410	<1.0	<1.0	<1.0	<1.0				<1.1
	10/16/14	8.44	993.55	985.11													
	03/12/15	9.96	993.55	983.59													
	06/01/15	9.36	993.55	984.19													
	08/31/15	8.67	993.55	984.88													
14.5	05/05/17	9.03	992.55	983.52													
	08/16/17	8.66	992.55	983.89													
	11/21/17	8.98	992.55	983.57													
	02/22/18	10.23	992.55	982.32													
	05/24/18	9.73	992.55	982.82													
	09/25/18	8.35	992.55	984.20													
	12/19/18	NM	992.55	NM						We	ll Has Been	Paved Over	- Not Access	sible			
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW3		Installed March 1999	Э														
Well	Sampling	Ground Water	Elevation	Water Level	Product Level	Product	TPHg	TPHd	трно	Benzene	Toluene	Ethyl-	Xvlenes	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation		Thickness						benzene	,	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	µg/L
	03/05/99	10.13	991.02	980.89			340	<250	<500	<1.0	<1.0	2.2	36.2				
	05/22/00	9.75	991.02	981.27			87	14,000	<250	<1	<1	<1	2.0				
	08/27/09	9.67	991.02	981.35			<100	<250	<410	<1.0	<1.0	<1.0	<1.0				<1.1
	11/11/09	9.85	991.02	981.17			<100	310	<380	<1.0	<1.0	<1.0	<1.0				
	03/02/10	9.81	992.02	982.21			<100	580	<410	<1.0	<1.0	<1.0	<1.0				<1.1
	05/20/10	10.00	992.02	982.02			<100	<250	<400	<1.0	<1.0	<1.0	<1.0				<1.1
	10/16/14	9.79	992.02	982.23			<100	370	<250	<1	<1	<1	<3				
	02/23/15	10.42	992.02	981.60			<100	62	<250	<1	<1	<1	<3				
	06/01/15	10.45	992.02	981.57			<100	2,100	310	<1	<1	<1	<3				
	08/31/15	9.79	992.02	982.23			<100	500	<250	<1	<1	<1	<3				
	08/09/16							<200	<500								
14.8	05/05/17	10.00	991.02	981.02				170	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	9.79	991.02	981.23				190	<250	<1.0	<1.0	<1.0	<3.0				
	11/20/17	9.97	991.02	981.05				<130	<250	<1.0	<1.0	<1.0	<3.0				
	02/21/18	10.50	991.02	980.52				<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/24/18	10.28	991.02	980.74				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	09/25/18	9.72	991.02	981.30				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/20/18	10.18	991.02	980.84			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
	0 = (4 = (4 0	10.22								1							
	05/15/19	10.23	991.02	980.79			<50	270	<250	<1.0	<1.0	<1.0	<3.0				
	05/15/19 08/22/19	9.85	991.02 991.02	980.79 981.17			<50 <50	270 <b>1,600</b>	<250 <250	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<3.0 <3.0				
	05/15/19 08/22/19 12/04/19	9.85 10.22	991.02 991.02 991.02	980.79 981.17 980.80	  10.18	  0.04	<50 <50 <50	270 1,600 10,000	<250 <250 <1,200	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<1.0 <1.0 <1.0	<3.0 <3.0 <3.0	  	  		

Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

MW4		Installed May 2017															
Well	Sampling	Ground Water	Elevation	Water Level	Due durat Laural	Product	TDU	TOUL	TDU	Democra	Taluana	Ethyl-	Velones	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	ТРН	трна	ТРНО	Benzene	Toluene	benzene	xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
18.3	05/05/17	10.49	991.60	981.11				160	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	10.30	991.60	981.30				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	10.45	991.60	981.15				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	02/22/18	11.03	991.60	980.57				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	05/24/18	10.79	991.60	980.81				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	09/25/18	10.18	991.60	981.42				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/19/18	10.68	991.60	980.92			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/15/19	10.73	991.60	980.87				<130	<250								
	08/22/19	10.26	991.60	981.34				<130	<250								
	12/04/19	10.56	991.60	981.04				160	<250								
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000				15
MW5		Installed May 2017															
Well	Sampling	Ground Water	Elevation	Water Level	Product Level	Product	трнσ	трнд	TPHO	Benzene	Toluene	Ethyl-	Xylenes	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Thouse Level	Thickness		IIIIa		Denzene	Totache	benzene	Хутепез	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.5	05/05/17	10.54	991.67	981.13				<130	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	10.34	991.67	981.33				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	10.51	991.67	981.16				<130	<250	<1.0	<1.0	<1.0	<3.0				
	02/22/18	11.08	991.67	980.59				<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/24/18	10.84	991.67	980.83				<130	<250	<1.0	<1.0	<1.0	<3.0				
	09/25/18	10.22	991.67	981.45				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/19/18	10.72	991.67	980.95				<130	<250								
	05/15/19	10.79	991.67	980.88				<130	<250								
	08/22/19	10.31	991.67	981.36				<130	<250								
	12/04/19	10.72	991.67	980.95				<130	<250								
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW6		Installed May 2017															
Well	Sampling	Ground Water	Elevation	Water Level	Product Level	Product	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl-	Xvlenes	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation		Thickness						benzene	,	thalene	Naphthalene	Naphthalene	Lead
Feet	/ /	Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	µg/L	μg/L	μg/L	µg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.7	05/05/17	10.12	991.35	981.24				<130	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	9.92	991.35	981.43				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	10.08	991.35	981.27				<130	<250	<1.0	<1.0	<1.0	<3.0				
	02/21/18	10.71	991.35	980.64				<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/24/18	10.44	991.35	980.91				<130	<250	<1.0	<1.0	<1.0	<3.0				
	09/25/18	9.77	991.35	981.58				<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/19/18	10.31	991.35	981.04				<130	<250								
	05/15/19	10.38	991.35	980.97				<130	<250								
	08/22/19	9.84	991.35	981.51				<130	<250								
	12/04/19	10.30	991.35	981.05				<130	<250								
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15

Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

MW7		Installed May 2017															
Well	Sampling	Ground Water	Elevation	Water Level	Product Loval	Product	TDHa	TDUA	TDHo	Bonzono	Toluono	Ethyl-	Yulonoc	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	IPHU	IPHO	Benzene	Toluene	benzene	Aylefies	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
17.7	05/05/17	10.60	992.53	981.93				380	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	10.37	992.53	982.16				140	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	10.60	992.53	981.93				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	02/22/18	11.33	992.53	981.20				490	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	05/24/18 <sup>2</sup>	11.04	992.53	981.49	11.03	0.01		470	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	09/25/18	10.14	992.53	982.39				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/19/18	NM	992.53	NM						We	ll Has Been	Paved Over	- Not Access	sible			
	05/15/19	10.94	992.53	981.59	10.91	0.03	<50	6,200	<250	<1.0	<1.0	<1.0	<3.0				
	08/22/19	10.28	992.53	982.25	10.28			880	<250								
	12/04/19	10.76	992.53	981.77	10.75	0.01		310	<250								
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
<u>MW8</u>		Installed May 2017					-			-					-		
Well	Sampling	Ground Water	Elevation	Water Level	Product Level	Product	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl-	Xvlenes	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation		Thickness						benzene	,	thalene	Naphthalene	Naphthalene	Lead
Feet	/ /	Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.8	05/05/17	10.34	991.84	981.50				<130	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	10.13	991.84	981.71				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	10.30	991.84	981.54				<130	<250	<1.0	<1.0	<1.0	<3.0				
	02/21/18	11.02	991.84	980.82				<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/24/18	10.76	991.84	981.08				<130	<250	<1.0	<1.0	<1.0	<3.0				
	09/25/18	9.98	991.84	981.86				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/19/18	10.53	991.84	981.31				<130	<250								
	05/15/19	10.64	991.84	981.20				<130	<250								
	08/22/19	10.08	991.84	981.76				<130	<250								
	12/04/19	10.51	991.84	981.33				<130	<250								
			IVITCA IVIE	thod A Cleanup L	evers		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
IVIW9		Installed May 2017													_		
Well	Sampling	Ground Water	Elevation	Water Level	Product Level	Product	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl-	Xylenes	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Frank Ballana TOC	Thickness						benzene		thalene	wapintilalene	wapittialene	Lead
Feet	05/05/17	Feet Below TUC	Peet Above IVISL	Feet Above IVISL	Feet Below TOC	Feet	µg/L	μg/L	μg/L	μg/L	μg/L	<1.0	μg/L	μg/L	µg/L	µg/L	µg/L
17.5	09/05/17	8.65	991.74	982.89				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	8.50	991.74	963.16				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/1/	0.02	991.74	982.92				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	02/21/18	9.80	991.74	981.94				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	05/24/18	9.40	991.74	982.34				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/10/10	0.31	991.74	903.43				<120	<25U			 Paved Over	Not Access				
	12/19/18		991.74					14/	oll Not Com	vve	Consistent	Vet Dotoot	- NOL ACCESS	aborator: P	oporting ! :~		
	08/22/19	9.27	991.74	982.47				VV	en NUL Sam	pieu (Diesel	Viocal Cancil	topthy Net F	Leu ADUVE La	aboratory R	tory Poperti-	nu)	
	08/22/19	INIVI	991.74				000/4000*	vven NC					A 000				45

Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

MW10	)	Installed May 2017															
Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	Product Level	Product Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	Naph- thalene	1-Methyl- Naphthalene	2-Methyl- Naphthalene	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
18.1	05/04/17	9.20	992.19	983.00				<130	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	8.88	992.19	983.31				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/21/17	9.15	992.19	983.04				<130	<250	<1.0	<1.0	<1.0	<3.0				
	02/22/18	10.18	992.19	982.01				<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/24/18	9.80	992.19	982.39				<130	<250	<1.0	<1.0	<1.0	<3.0				
	09/25/18	8.63	992.19	983.56				<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/19/18	9.48	992.19	982.71				<130	<250								
	05/15/19	9.65	992.19	982.54				W	ell Not Sam	pled (Diesel	Consistentl	y Not Detect	ed Above L	aboratory R	eporting Lin	nit)	
	08/22/19	NM	992.19	NM				Well No	ot Sampled	or Gauged (I	Diesel Consis	stently Not [	Detected Ab	ove Laborat	tory Reporti	ng Limit)	
			MTCA Me	thod A Cleanup L	evels.		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW11		Installed September	2018														
Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	Product Level	Product Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	Naph- thalene	1-Methyl- Naphthalene	2-Methyl- Naphthalene	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.1	05/05/17	10.09	992.25	982.16				<130	<250	<1.0	<1.0	<1.0	<3.0				
	08/16/17	9.84	992.25	982.41				<130	<250	<1.0	<1.0	<1.0	<3.0				
	11/20/17	10.04	992.25	982.21				<130	<250	<1.0	<1.0	<1.0	<3.0				
	02/21/18	10.97	992.25	981.28				<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/24/18	10.61	992.25	981.64				<130	<250	<1.0	<1.0	<1.0	<3.0				
	09/25/18	9.99	992.25	982.26				<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/20/18	10.31	992.25	981.94			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
	05/15/19	10.45	992.25	981.80				<130	<250								
	08/22/19	9.61	992.25	982.64			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/04/19	10.26	992.25	981.99			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
			MTCA Me	thod A Cleanup L	.evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW12	<u>)</u>	Installed September	2018														
Well	Sampling	Ground Water	Elevation	Water Level	Dreduct Lovel	Product	TDUa	TDUA	TDUe	Bonzono	Taluana	Ethyl-	Vulanas	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	IPHg	ТРНа	IPHO	Benzene	Toluene	benzene	Aylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	09/25/18	8.93	991.79	982.86				<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/20/18	9.64	991.79	982.15				<130	<250								
	05/16/19	9.78	991.79	982.01				<130	<250								
	08/22/19	9.08	991.79	982.71				<130	<250								
	12/03/19	NM	991.79	NM				Well No	ot Sampled	or Gauged (I	Diesel Consis	stently Not [	Detected Ab	ove Laborat	tory Reporti	ng Limit)	
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15

Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

<u>MW13</u>		Installed September	2018														
Well	Sampling	Ground Water	Elevation	Water Level	Product Level	Product	трна	трнд	TPHo	Benzene	Toluene	Ethyl-	Xvlenes	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Thouse Level	Thickness				Denzene	Toructic	benzene	Ayrenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	09/25/18	7.74	991.02	983.28				<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/19/18	8.49	991.02	982.53				<130	<250								
	05/16/19	8.65	991.02	982.37				<130	<250								
	08/22/19	7.87	991.02	983.15				<130	<250								
	12/03/19	NM	991.02	NM				Well No	t Sampled c	or Gauged (E	Diesel Consis	stently Not [	Detected Ab	ove Laborat	ory Reportin	ng Limit)	
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
<b>MW14</b>		Installed September	2018														
Well	Sampling	Ground Water	Elevation	Water Level		Product				_		Ethyl-		Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	трна	ТРНО	Benzene	Toluene	benzene	xyienes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	09/25/18	8.91	991.79	982.88				<130	<250	<1.0	<1.0	<1.0	<3.0	<0.020	<0.020	<0.020	
	12/19/18	9.64	991.79	982.15				<130	<250								
	05/16/19	9.77	991.79	982.02				<130	<250								
	08/22/19	9.05	991.79	982.74				<130	<250								
	12/04/19	9.62	991.79	982.17				<130	<250								
	, ,		MTCA Me	thod A Cleanup L	evels	1	800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW15		Installed September	2018	· · · · ·													
Well	Sampling	Ground Water	Elevation	Water Level		Product						Ethvl-		Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	benzene	Xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	09/25/18	9.99	990.98	980.99	9.62	0.37		1,600	<250	5.70	<33	<15	<110	<0.020	<0.020	<0.020	
	12/19/18	10.63	990.98	980.35	10.08	0.55				Well	Not Sample	d After Prod	uct Measure	ement			
	05/15/19	10.54	990.98	980.44	10.15	0.39				Well	Not Sample	d After Prod	uct Measure	ement			
	08/22/19	9.92	990.98	981.06	9.73	0.19				Well	Not Sample	d After Prod	uct Measure	ement			
	12/03/19	10.49	990.98	980.49	10.08	0.41				Well	Not Sample	d After Prod	uct Measure	ement			
	,,		MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW16		Installed March 2019		· · · ·													
Well	Sampling	Ground Water	Flevation	Water Level		Product						Ethyl-		Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	TPHd	TPHo	Benzene	Toluene	benzene	Xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
17.8	05/15/19	9.86	990.70	980.84			<50	170	<250	<1.0	<1.0	<1.0	<3.0				
	08/22/19	9.40	990.70	981.30			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
	12/04/19	9.79	990.70	980.91			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
	, , , , -		MTCA Me	thod A Cleanup L	evels	1	800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW20	)	Installed March 2019		· · ·							,		, , , , , , , , , , , , , , , , , , ,				
Well	Sampling	Ground Water	Elevation	Water Level		Product						Ethyl-		Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	TPHd	TPHo	Benzene	Toluene	benzene	Xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	05/15/19	11.26	992.33	981.07			1,900	3,600	900	4.60	<1.0	35	38				
	08/22/19	10.60	992.33	981.73			4.900	4.200	<250	3.20	9.50	43	290				
	12/04/19	11.32	992.33	981.01	11.03	0.29	4.900	5 7x10 <sup>7</sup>	<6 4x10 <sup>5</sup>	10	61	50	310				
	, 0., 10						.,	SULATO	-0.4AI0								

Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

6 of 6

IVI W 21		Installed March 2019	)														
Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	Product Level	Product Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	Naph- thalene	1-Methyl- Naphthalene	2-Methyl- Naphthalene	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	05/15/19	10.14	990.80	980.66			<50	140	<250	<1.0	<1.0	<1.0	<3.0				
	08/22/19	9.73	990.80	981.07			<50	210	<250	<1.0	<1.0	<1.0	<3.0				
	12/05/19	10.11	990.80	980.69			<50	140	<250	<1.0	<1.0	<1.0	<3.0				
·			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
<b>MW22</b>		Installed December 2	2019														
Well	Sampling	Ground Water	Elevation	Water Level		Product				_		Ethyl-		Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	benzene	Xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.5	12/05/19	9.78	990.49	980.71			<50	180	<250	<1.0	<1.0	<1.0	<3.0				
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
<b>MW23</b>		Installed December 2	2019														
Well	Sampling	Ground Water	Elevation	Water Level		Product				_		Ethyl-		Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	benzene	Xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.6	12/05/19	9.49	990.16	980.67			450	4,500	800	<1.0	<1.0	<1.0	8.0				
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
<b>MW24</b>		Installed December 2	2019														
Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	Product Level	Product Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	Naph- thalene	1-Methyl- Naphthalene	2-Methyl- Naphthalene	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
19.4	12/05/19	9.63	990.33	980.70			<50	140	<250	<1.0	<1.0	<1.0	<3.0				
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW25		Installed December 2	2019														
Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	Product Level	Product Thickness	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	Naph- thalene	1-Methyl- Naphthalene	2-Methyl- Naphthalene	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
17.5	12/05/19	9.59	990.44	980.85			<50	<130	<250	<1.0	<1.0	<1.0	<3.0				
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
MW26		Installed December 2	2019														
Well	Sampling	Ground Water	Elevation	Water Level	Due duet Level	Product	TDU	TDU	TDU	Deverse	Taluana	Ethyl-	Vulanaa	Naph-	1-Methyl-	2-Methyl-	Total
Depth	Date	Level	(TOC north)	Elevation	Product Level	Thickness	TPHg	трна	TPHO	Benzene	Toluene	benzene	xylenes	thalene	Naphthalene	Naphthalene	Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	Feet Below TOC	Feet	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
17.5	12/05/19	10.05	991.04	980.99			<50	150	<250	<1.0	<1.0	<1.0	<3.0				
			MTCA Me	thod A Cleanup L	evels		800/1000*	500	500	5	1,000	700	1,000	160	560^	32^	15
EXPLAN	ATION																
MTCA = N	/lodel Toxic C	Control Act Cleanu	p Level (WAC173	-340-900)													

TOC = Top of Casing MSL = Mean Sea Level

< = not detected at indicated Laboratory Detection Limits -- not analyzed NM = Not Measured

 $\ensuremath{\mathsf{TPHd}}\xspace$  - Total Petroleum Hydrocarbons - Gasoline by Method NWTPH-Gx

 $\ensuremath{\mathsf{TPHd}}\xspace$  - Total Petroleum Hydrocarbons - Diesel by Method NWTPH-Dx

TPHo - Total Petroleum Hydrocarbons - Motor Oil by Method NWTPH-Dx extended

Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 8021B Lead by EPA Method 200.8

\* = 800 µg/L can only be used if no benzene is present at the site and the total of ethylbenzene, toluene and xylene do not exceed 1% of the gasoline mixture.

^ = Denotes Method B Non-Cancer Cleanup Level. 1-Methylnaphthalene and 2-Methylnaphthalene each do not have a listed MTCA Method A Cleanup Level

1 = A grab sample was collected during the Aerotech Phase II Limited & Targeted Subsurface Investigation using a peristaltic pump

#### TABLE 4 SUBSLAB VAPOR ANALYTICAL RESULTS Gearjammer Truck Plaza

2310 Rudkin Road

Union Gap, Washington

#### 1 of 1

Sample Name	Vapor Point ID	Sample Date	Depth	APH EC5-8 Aliphatics	APH EC9-12 Aliphatics	APH EC9-10 Aromatics	Benzene	Toluene	Ethyl- benzene	Xylenes	Naph- thalene	МТВЕ	EDB	EDC	n-Hexane	TCE	PCE	Helium
			Feet BGS	μg/m <sup>3</sup>	μg/m <sup>3</sup>	μg/m <sup>3</sup>	μg/m <sup>3</sup>	μg/m <sup>3</sup>	μg/m <sup>3</sup>	μg/m <sup>3</sup>	μg/m <sup>3</sup>				μg/m <sup>3</sup>	μg/m <sup>3</sup>	$\mu g/m^3$	%
V-SS1	SS1	09/24/18	0.50	101	204	22	<1.8	6.5	2.3	3.8	<1.7	<1.8	<1.8	<1.8	<1.8	5.7	<1.8	0.19
V-SS2	SS2	09/24/18	0.50	131	185	<8.0	<2.1	2.5	<2.1	<4.4	<2.0	<2.2	<2.2	<2.1	2.6	<2.1	<2.1	0.044
V-SS3	SS3	09/24/18	0.50	95	340	<8.3	<2.2	<2.2	<2.2	<4.6	<2.1	<2.2	<2.2	<2.2	<2.2	<2.2	8.1	0.073
MTCA Method B Subslab Soil Gas Cleanup Levels				90,000	4,700	6,000	10.7	76,200	15,200	1,520	2.45	45,700	0.139	3.21	10,700	12.3	321	5*

#### EXPLANATION

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)

TOC = Top of Casing MSL = Mean Sea Level

< = not detected at indicated Laboratory Detection Limits -- not analyzed NM = Not Measured

APH Aliphatics and Aromatics by TO-15

Benzene, Toluene, Ethylbenzene, Xylenes, Napthalene, n-Hexane by TO-15

TCE = Trichloroethene PCE = tetrachloroethene by TO-15

MTBE = Methyl-tert-butyl-ether EDC = 1,2-Dichloroethane EDB = 1,2-Dibromoethane; by TO-15

Bolded numbers and red-shaded cells denote concentrations above the MTCA Method B Cleanup Levels for Subslab Vapor

#### MW3 NON-AQUEOUS PHASE LIQUID RECOVERY DATA

**Gearjammer Truck Plaza** 

2310 Rudkin Road Union Gap, Washington

Recovery	Mixture	Product	Consultant			
Date	oz. of Water	oz. of Diesel				
07/20/00			Sage			
07/27/00		0.50	Sage			
07/31/00		0.25	Sage			
08/01/00		0.00	Sage			
08/07/00	2.0	0.50	Sage			
08/22/00	7.0		Sage			
08/28/00	1.0		Sage			
09/06/00	3.0		Sage			
09/12/00	Т		Sage			
09/20/00	<1		Sage			
09/28/00	1.5		Sage			
10/04/00	<1		Sage			
10/12/00	Т		Sage			
10/19/00	Т		Sage			
10/23/00		0.00	Sage			
10/26/00	Т		Sage			
11/03/00	Т		Sage			
11/09/00	Т		Sage			
11/21/00	Т		Sage			
11/28/00		0.00	Sage			
02/19/01		10.00	Sage			
04/27/01		0.50	Sage			
08/01/01	<1		Sage			
08/27/01		0.00	Sage			
08/30/01		1.00	Sage			
10/18/01		2.00	Sage			
11/08/01		0.00	Sage			
02/20/02		0.00	Sage			
02/22/02		0.00	Sage			
03/07/02		0.00	Sage			
04/09/02		12.00	Sage			
04/19/02		5.00	Sage			
05/07/02		1.00	Sage			
05/24/02		1.00	Sage			
CUMALTIVI RECOVEREI	E PRODUCT D	33.75	Sage			

Sage = Sage Earth Sciences Inc. of Zillah, Washington