



**SECOND PERIODIC REVIEW REPORT  
FINAL**

**J MARCEL BUILDING  
Facility Site ID#: 28236738  
Cleanup Site ID#: 1124**

**2320 Pacific Avenue  
TACOMA, WA 98401**

**Southwest Regional Office  
TOXICS CLEANUP PROGRAM**

**October 2019**

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## 1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup conditions and monitoring data to ensure that human health and the environment are being protected at the J Marcel Building (formerly Juaeau Street Associates Property) site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in concentrations of carcinogenic polycyclic aromatic hydrocarbons (cPAHs) in soil that exceeds MTCA Method A cleanup levels. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action.
- Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- Or, as resources permit, whenever the department issues a no further action (NFA) opinion.
- And one of the following conditions exists:
  - (a) Institutional controls or financial assurance are required as part of the cleanup.
  - (b) Where the cleanup level is based on a practical quantitation limit.
  - (c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site.
- (b) New scientific information for individual hazardous substances or mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

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## **2.0 SUMMARY OF SITE CONDITIONS**

### **2.1 Site History**

The Site is located at 2320 Pacific Avenue in Tacoma, Washington. The Site consists of a two-story commercial building with partial basement, and occupies the entire 0.48-acre footprint. The building was built in 1928 and located approximately 1,100 feet southeast of the Thea Foss Waterway. The property is classified as light industrial, and commercial, and located in an area of mixed use. Currently the building is occupied by two businesses and Soma Church. Wingard Refrigeration (air conditioning and heating), a retail establishment lies to the north of the property. U.S. Bank is located across Pacific Avenue to the east. The Pierce County Auto Maintenance Shop occupies the parcel to the south, across south 24<sup>th</sup> Street. To the west, across Commerce Street, is a storage warehouse under the business name of PC Records Storage. A vicinity map and a Site Plan are available as Appendix 6.1 and Appendix 6.2.

The Site building is currently heated by natural gas. However, it was historically heated by Bunker C heating oil furnace. The underground storage tank (UST) associated with the system is reportedly located beneath the Site building basement. The approximate location of former UST is shown on Site Plan in Appendix 6.2. However, the exact orientation of the UST is unknown. Bunker C tanks are typically accompanied by a smaller, diesel “starter” tank, either as an UST or an above ground tank (AST). The presence or absence of a diesel starter tank was not noted in the available documentation.

### **2.2 Cleanup Levels**

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used. At this Site, MTCA Method A cleanup levels are used both for soil and groundwater.

### **2.3 Underground Storage Tank Decommissioning and Site Investigations**

In January 2000, petroleum contamination was discovered in the City of Tacoma (City) stormwater system. After conducting the source investigations, the City determined that the contamination had originated from the bunker C UST located at the Site. It was reported that the UST system was taken out of service in approximately December of 1999. Over the course of that month, Bunker C product had reportedly been oozing from the cut product lines and was flowing into an open sump with a drain that discharged to the municipal storm sewer. City workers were able to create a concrete berm to contain the oil and capped the damaged pipes to keep additional product from entering the sewer.

#### **2.3.1 Decommissioning of Underground Storage Tank**

On January 28, 2000, the property owner hired Creative Environmental Technologies, Inc. (CETI) to decommission the leaking UST. The tank was situated under the building and was accessed by removing a section of the concrete floor. Once the concrete was removed, it became apparent that the UST had been leaking for some time from the visibly impacted soil and groundwater adjacent to the UST. Due to the limited access, the UST was closed in place.

Approximately 3,000 gallons of Bunker C type oil and water mixture were pumped from the tank, and disposed of it via CeCon Corporation in Tacoma, Washington. The tank was then filled with control-density-fill/slurry (CDF) and capped. No additional soil and groundwater investigation was conducted at that time.

On June 25, 2002, the property was listed on Ecology's Confirmed or Suspected Contaminated Sites database to await a Site Hazard Assessment (SHA) ranking. In February 2006, the Tacoma Pierce County Health Department completed an SHA for the Site and the Site ranked a five. The ranking scale ranges from one to five, with one representing the highest relative risk and five the lowest relative risk.

### **2.3.2 December 2006 Phase I Environmental Site Assessment**

In December 2006, The Riley Group, Inc. (RGI) was hired by the Washington Mutual Bank for conducting a Phase I Environmental Site Assessment (ESA) as a part of a Commercial Mortgage Lending. The Phase I findings concluded the presence of petroleum related contamination at the Site and recommended additional investigation to determine the nature and extent of soil and groundwater contamination.

### **2.3.3 December 2006 Preliminary Phase II Subsurface Investigations**

Based on the Phase I ESA findings, RGI conducted a preliminary Phase II subsurface investigation on December 7, 2006. The objective of this investigation was to determine the presence of contamination in the soil and groundwater and not to determine the extent of contamination. Access to the floor slab was limited due to an elevated wood floor in the western half of the basement. Approximately 2 to 3 inches of standing water was noted in the northern and eastern portions of the Site basement. After RGI removed the wood flooring, a concrete cut hole was noted in the floor. The location of the cut corresponded with the previously reported location of the access for the former UST decommissioning. The concrete cut excavation appeared to be approximately 1 foot deep and filled with water. Groundwater was noted to be flowing from the north end of the concrete cut onto the basement floor. Slight petroleum sheen was noted on the water in the concrete cut.

A total of three borings (HA1 through HA3) were drilled to depths of 0.5 to 1 foot below the basement slab. Borings HA1 and HA2 were advanced in an inferred cross-gradient and partially down-gradient direction of the former decommissioned UST. Boring HA3 was advanced in soils within the concrete cut excavation. The potentiometric surface of groundwater at each sampling location was observed to be above the basement floor slab elevation and the groundwater filled the concrete cut excavation.

Soil samples were collected from all boring locations, inspected, and field screened for the presence of semi-volatile organic compounds (SVOCs) using a standard water sheen test. Soil samples collected from borings HA1 and HA2 showed no indication of petroleum hydrocarbons, where as soil sample collected from the concrete cut (HA3) showed a petroleum sheen when field tested.

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A total of two soil and three groundwater samples were collected for laboratory analysis. Soil samples from HA2 and HA3 were selected for laboratory analysis. All samples were analyzed for total petroleum hydrocarbons. In addition, the soil and groundwater samples collected from HA3 were also analyzed for carcinogenic hydrocarbons (cPAHs). Petroleum hydrocarbons were not detected in soil and/or groundwater samples collected from boring HA1 and HA2. However, soil sample collected from HA3 boring showed a total cPAHs concentration of 6.83 mg/Kg (with toxicity equivalent factors: 1.577 mg/Kg), above MTCA Method A cleanup level of 0.1 mg/Kg. The diesel and oil-range (TPH-D and TPH-O) concentrations were below MTCA Method A cleanup level of 2000 mg/Kg. The considerable presence of PAHs indicates that the total petroleum fraction in the sample is heavier than diesel-range and may be all Bunker C range petroleum hydrocarbons that are relatively immobile and less soluble in water.

The groundwater sample collected from the concrete cut excavation (HA3) contained no detectable concentrations of TPH-D and TPH-O. Also no cPAHs were detected except benzo(a)pyrene [0.01 micrograms per liter ( $\mu\text{g/L}$ )] below MTCA Method A cleanup level of 0.1  $\mu\text{g/L}$ . The sampling locations and results are available as Appendix 6.3.

#### **2.3.4 December 2007 Supplemental Phase II Investigations**

Based on Ecology's opinion letter of November 9, 2007, which indicated that further investigations are needed to define the nature and extent of soil and groundwater contamination, the property owner hired RGI for conducting a supplemental Phase II investigation. RGI performed the field work on December 7, 2007 by drilling a total of four strata probe borings (SP1 through SP4) to a depth of 12 to 20 feet below ground surface (bgs). Because of zero lot line of the building relative to the Property, all test probes were advanced within the sidewalk right-of-ways (ROWS). Test probe SP1 was placed in the sidewalk ROW along Commerce Street, inferred to be up-gradient of the closed-in-place UST. Test probes SP2, SP3, and SP4 were placed in the sidewalk ROW along the Pacific Avenue, inferred down-gradient locations of the Property.

Soil conditions encountered were described as generally, gravelly, silty, fine to medium sand (reworked fill and/or weathered glacial till). Refusal was encountered during test probing at depths ranging from 12 to 16 feet bgs along Pacific Avenue and 21 feet along Commerce Street due to very dense glacial till respectively. As a result, occurrence of perched water was noticed in this area during the winter season. Perched groundwater was encountered at 9 to 10.5 feet bgs in all the test borings except SP1. As was encountered during the preliminary Phase II ESA, 2 to 3 inches of standing water was noted in the northern and eastern portions of the building basement floor slab. Groundwater was noted as flowing from the north end of the concrete cut above the closed-in-place UST onto the basement floor. A grab groundwater sample was collected directly from water flowing through the concrete cut. A total of six soil samples were collected from all borings and five groundwater samples were collected from borings SP2 through SP4 and from the basement for laboratory analysis. All samples were analyzed for TPH-D, TPH-O and cPAHs.

Soil samples collected from test probe SP1 contained elevated concentrations of cPAHs ranging from 0.087 mg/Kg to 1.53 mg/Kg which is above the MTCA Method A soil cleanup level of 0.1

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mg/Kg (for unrestricted land use). However, when the cPAHs concentrations were analyzed using toxicity equivalent factors (TEF) calculations, only the soil sample collected at 20 feet bgs exceeded the MTCA Method B cleanup level 0.1 mg/Kg. TPH-D, TPH-O and cPAHs were not detected in any other soil or groundwater sample collected from test borings SP2 through SP4. Low levels of cPAHs were detected in the grab water sample collected from the building basement that was below MTCA Method A cleanup level of 0.1 µg/L. Boring locations and results are available in Appendix 6.4.

### **2.3.5 Compliance Groundwater Monitoring**

The NFA letter and the Restrictive Covenant required the Compliance Groundwater Monitoring. Accordingly, a total of six rounds of groundwater grab samples were collected from the concrete cut area in the building basement as per the requirements of Ecology approved “Groundwater Compliance Monitoring Plan” dated February 13, 2008. All the water samples were analyzed for cPAHs. None of the cPAHs were detected above the laboratory detection limits during all sampling rounds.

## **2.4 Restrictive Covenant**

The required RC (now referred to as an environmental covenant) was recorded for the Site on February 20, 2008 and an NFA determination for the Site was issued on February 21, 2008. The Covenant was required because the Remedial Action resulted in residual concentrations of cPAHs exceeding MTCA Method A cleanup levels in soils at the Site. The Environmental Covenant (EC) imposes the following limitations:

**Section 1:** A portion of the Property contains cPAHs contaminated soil located immediately adjacent to the former closed-in-place UST beneath the building basement. The building basement is centrally located along the western Property boundary. The Owner shall not alter, modify, or remove the existing structure(s) in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.

**Section 2:** Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

**Section 3:** Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

**Section 4:** The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

**Section 5:** The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.

**Section 6:** The Owner must notify and obtain from Ecology prior to any use of the Property that is inconsistent with the terms of this EC. Ecology may approve any inconsistent use only after public notice and comment.

**Section 7:** The Owner shall allow authorized representatives of Ecology the right to enter the property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect records that are related to the Remedial Action.

**Section 8:** The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this EC shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

The EC is available as Appendix 6.5.

### **3.0 PERIODIC REVIEW**

#### **3.1 Effectiveness of completed cleanup actions**

Based upon the Site visit conducted on May 1, 2014, the contaminated soils are below the building basement slab. The basement concrete slab is in good condition and continues to eliminate direct exposure pathways (ingestion, contact) to contaminated soils. The concrete slab appears in satisfactory condition and no repair, maintenance or contingency actions have been required. A photo log is available as Appendix 6.6.

Soils remain at the Site with cPAHs concentrations exceeding MTCA Method A cleanup levels. These soils remain contained at 20 feet depth below the building basement slab. Results of confirmation groundwater monitoring conducted at the Site were all nondetects for six consecutive rounds which indicate that the contaminated soils do not pose a threat to groundwater.

An EC was recorded for the Site and remains active. This EC prohibits any use of the property that is inconsistent with the covenant or will release contaminants remaining in soil at the Site.

#### **3.2 New scientific information for individual hazardous substances for mixtures present at the Site**

There is no new relevant scientific information for hazardous substances remaining at the Site.

#### **3.3 New applicable state and federal laws for hazardous substances present at the Site**

MTCA Method A cleanup levels for contaminants of concern at the Site have not changed since the NFA determination was issued on November 12, 2009.

#### **3.4 Current and projected Site use**

The Site is currently occupied by a commercial building with two businesses and a Church. This use is not likely to have a negative impact on the risk posed by hazardous substances contained at the Site. There are no changes projected in the Site use.

#### **3.5 Availability and practicability of higher preference technologies**

The remedy implemented included capping of hazardous substances and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

#### **3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels**

The analytical methods used at the time of the remedial actions were capable of detection below Site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

## 4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, under WAC 173-340-740(6) (d), the cleanup action could comply with cleanup standards if the long-term integrity of the containment system was ensured and the requirements for containment technologies in WAC 173-340-360(8) have been met.
- The six rounds of compliance groundwater monitoring results are all below the laboratory detection limits. This empirical groundwater monitoring data confirms that the remaining residual cPAHs contaminated soil is not impacting the groundwater.
- The EC for the property is in place and will be effective in protecting public health from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this review, Ecology has determined that the remedial actions conducted at the Site continue to be protective of human health and the environment. The requirements of the EC are being satisfactorily followed and no additional remedial actions are required at this time. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the surface cover is maintained.

### 4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

## 5.0 REFERENCES

Creative Environmental Technologies, Inc. February 2000, Underground Storage Tank Decommissioning and Closure in Place, 2320 Pacific Avenue South, Tacoma, Washington, February 28, 2000.

The Riley Group Inc. December 2006, Phase I Environmental Site Assessment, Soma Building, 2320 to 2328 Pacific Avenue, Tacoma, Washington, December 5, 2006.

The Riley Group Inc. December 2006, Preliminary Phase II Subsurface Investigation, Soma Building, 2320 to 2328 Pacific Avenue, Tacoma, Washington, December 18, 2006.

Department of Ecology. February 2007, Site Hazard Assessment Report, February 21, 2007.

The Riley Group Inc. January 2008, Supplemental Phase II Subsurface Investigation, J. Marcel Building (Former Juneau Street Associates Property), 2320 to 2328 Pacific Avenue, Tacoma, Washington, January 22, 2008.

Pierce County Assessor's Office. February 2008, Restrictive Covenant, Tax Parcel No. 2023040030, February 20, 2008.

The Riley Group Inc. February 2008, Groundwater Compliance Monitoring Plan, J Marcel Building Property, 2320 to 2328 Pacific Avenue, Tacoma, Washington, February 13, 2008.

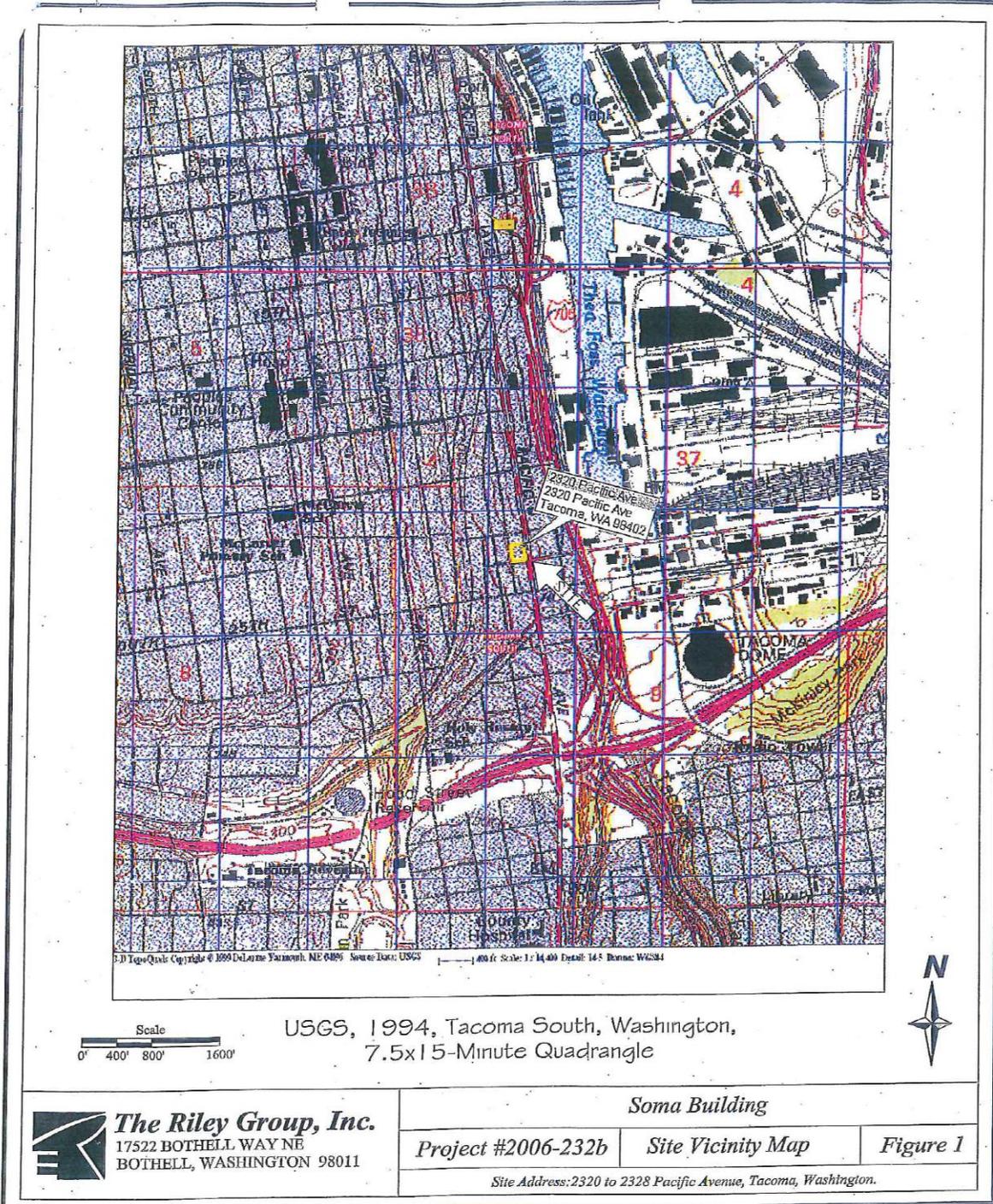
Department of Ecology. February 2008, No Further Action Determination Letter, J Marcel Building, 2320 Pacific Avenue, Tacoma, Washington, February 21, 2008.

Epic Partners. February 2012, Water Sampling and Testing Results, J. Marcel Building, 2320 Pacific Avenue, Tacoma, Washington.

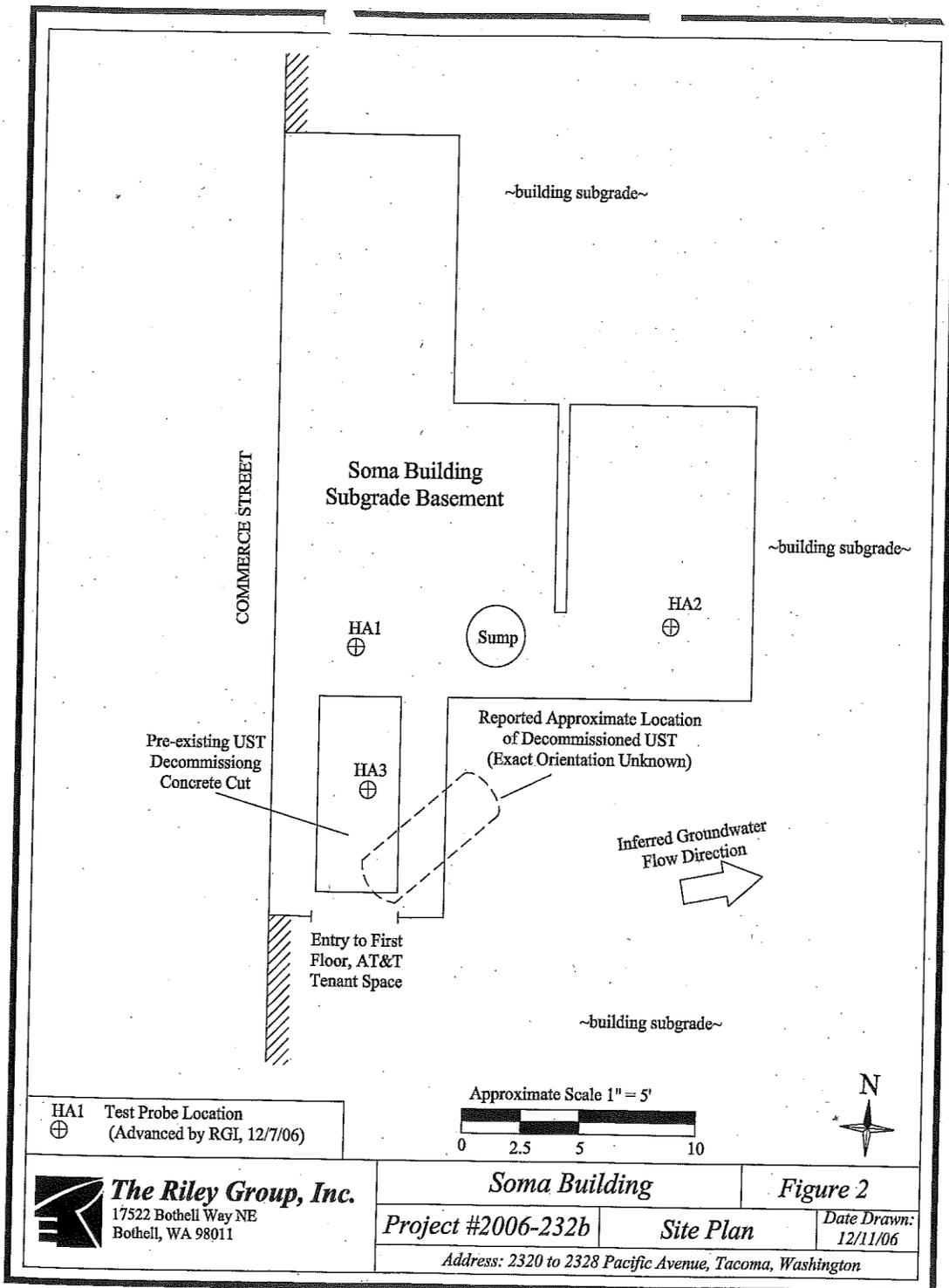
Department of Ecology. Site Visit, May 15, 2019.

## **6.0 APPENDICES**

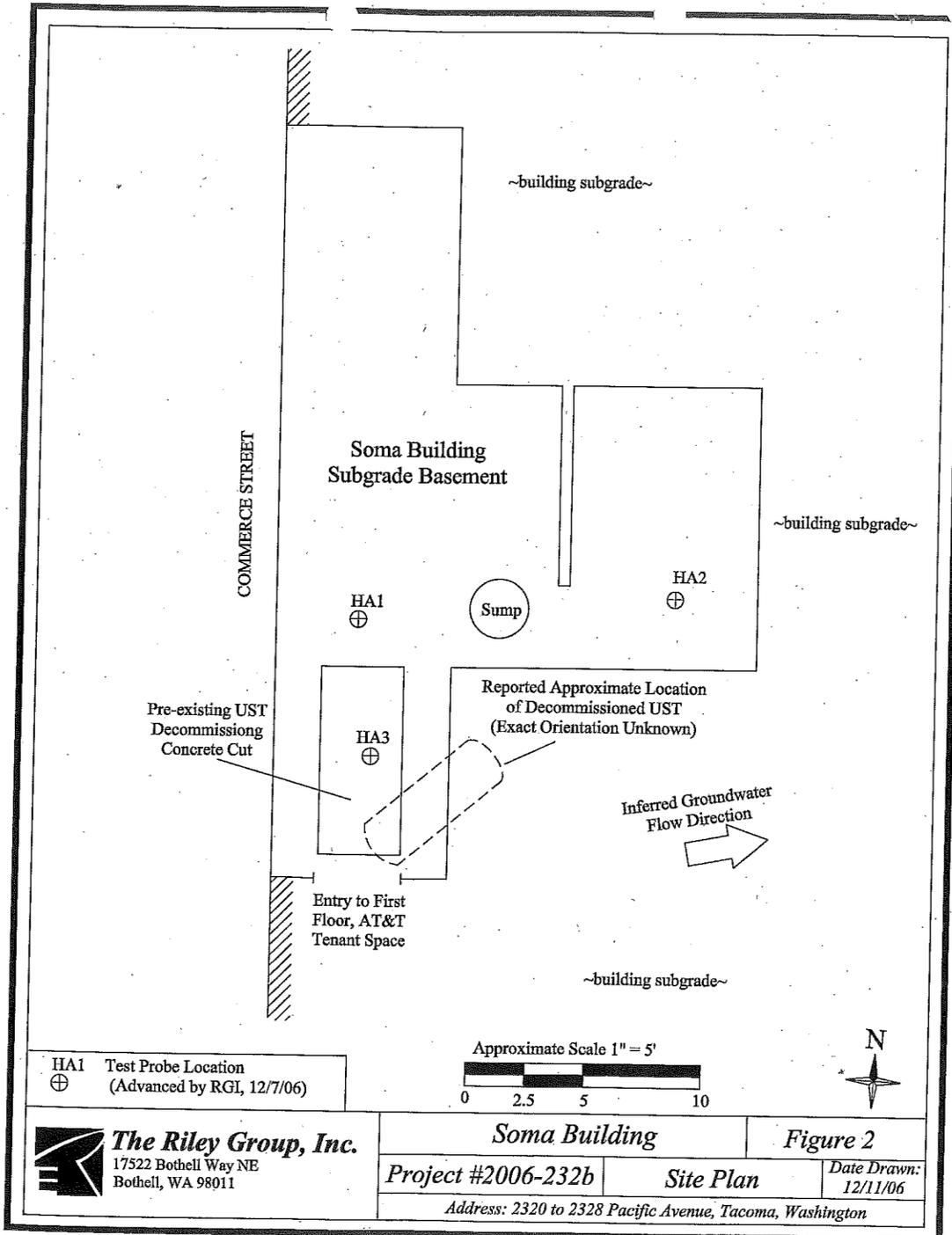
### 6.1 Vicinity Map



6.2 Site Plan



### 6.3 2006 Preliminary Phase II Investigation Soil and Groundwater Sampling Locations and Results



**Table 1 - Summary of Soil Sample Analytical Results, Soma Building,  
2320 to 2328 Pacific Avenue, Tacoma, WA 98402  
Riley Group, Inc. Project #2006-232b**

Sample ID	Sample Date	Sample Depth (in feet bgs)	Field Screening Results <sup>1</sup>	Diesel TPH	Oil TPH	Carcinogenic PAHs (cPAHs)					Total cPAHs	
						Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-c)fluoranthene	Benzo(a)anthracene		Benzo(b)fluoranthene
<b>Hand Auger Samples</b>												
HA1-0.5	12/7/2006	0.5	No Sheen	---	---	---	---	---	---	---	---	---
HA2-0.5	12/7/2006	0.5	No Sheen	---	---	---	---	---	---	---	---	---
HA2-1.0	12/7/2006	1	No Sheen	ND<29	ND<58	---	---	---	---	---	---	---
HA3-SS	12/7/2006	1	Sheen	450	570	1.1	1.8	0.22	0.53	1.5	1.3	6.83
MTCA Method A Soil Cleanup Levels				2,000	2,000	---	---	---	---	---	---	0.1

Unless noted otherwise all results given in milligrams per kilogram (mg/kg), approximately equivalent to parts per million (ppm).  
<sup>1</sup> Soil samples were screened in the field using a standard "water sheen" test. Samples exhibiting indications of TPH are listed above as "Sheen." Samples not exhibiting indications of TPH are listed above as "No Sheen."  
 Diesel TPH = diesel total petroleum hydrocarbons determined using Ecology Test Method NW/TPH-Dx with silica gel cleanup.  
 Oil TPH = heavy oil total petroleum hydrocarbons determined using Ecology Test Method NW/TPH-Dx with silica gel cleanup.  
 Carcinogenic PAHs = polynuclear aromatic hydrocarbons determined using EPA Test Method 8270C / SIM.  
 --- = not analyzed, or not applicable  
 ND, contaminant not detected at noted analytical detection limit.  
 MTCA = Model Toxics Control Act Method A Soil Cleanup Levels for Unrestricted Land Use (WAC 173-340-900, Table 740-1).  
**Bold concentrations, if any, are at or above the applicable MTCA Soil Cleanup Level.**

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**Table 2 - Summary of Groundwater Grab Sample Analytical Results. Soma Building,  
 2320 to 2328 Pacific Avenue, Tacoma, WA 98402  
 Riley Group, Inc. Project #2006-232b**

Sample ID	Sample Date	Depth to Groundwater (feet) <sup>1</sup>	Diesel TPH	Oil TPH	Carcinogenic PAHs (cPAHs)							Total cPAHs						
					Benzo(a)-pyrene	Chrysene	Dibenzo(a,h)-anthracene	Indeno(1,2,3-cd)pyrene	Benzo(k)-fluoranthene	Benzo(e)-anthracene	Benzo(b)-fluoranthene							
HA1-H <sub>2</sub> O	12/7/2006	-0.2	ND<0.25	ND<0.40	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HA2-H <sub>2</sub> O	12/7/2006	-0.3	ND<0.25	ND<0.40	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Soma-H <sub>2</sub> O	12/7/2006	0.0	ND<0.25	ND<0.40	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095
MTCA Method A Cleanup Levels			500	500	---	---	---	---	---	---	---	---	---	---	---	---	---	---

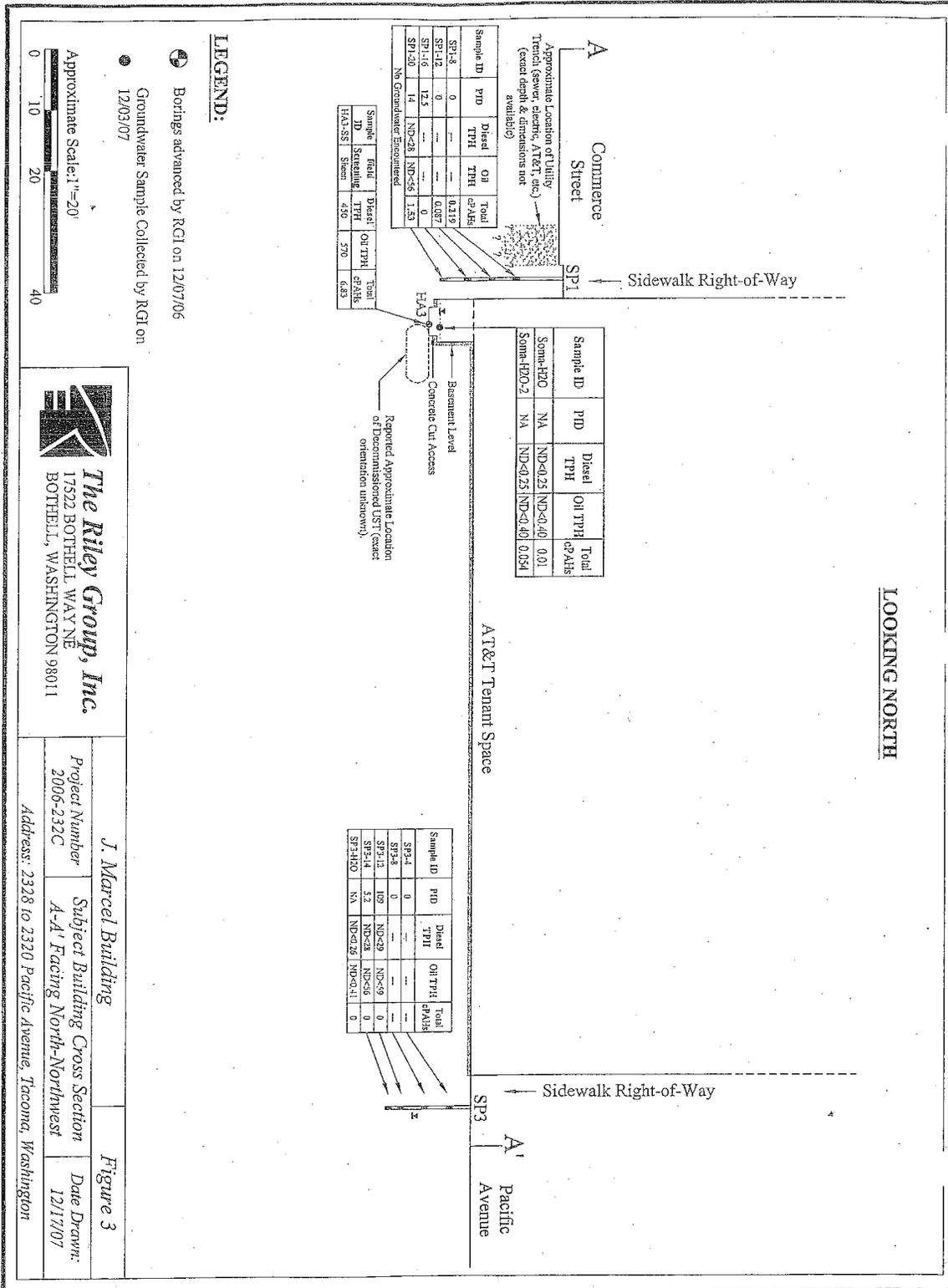
Unless noted otherwise all results given in micrograms per liter (ug/L), approximately equivalent to parts per billion (ppb).  
<sup>1</sup> Groundwater levels were measured as depths below the basement slab. Water table measurements above the slab (inflow), are listed as negative measurements.  
 Diesel TPH = diesel total petroleum hydrocarbons determined using Ecology Test Method NWTPH-Dx with silica gel cleanup.  
 Oil TPH = heavy oil total petroleum hydrocarbons determined using Ecology Test Method NWTPH-Dx with silica gel cleanup.  
 Carcinogenic PAHs = polynuclear aromatic hydrocarbons determined using EPA Test Method 8270C / SIM.  
 --- = not analyzed, or not applicable  
 ND, contaminant not detected at noted analytical detection limit.  
 MTCA = Model Toxics Control Act Method A Groundwater Cleanup Levels (WAC 173-340-500, Table 720-1).  
**Bold concentrations, if any, are at or above the applicable MTCA Cleanup Level.**

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<b>Table 3 - Assessing the Carcinogenic Risk of Mixtures Using Toxicity Equivalence Factors.</b>			
<b>Soma Building, 2320 to 2328 Pacific Avenue, Tacoma, Washington</b>			
Sample ID/ cPAH	Measured Soil Concentration (mg/kg)	Toxicity Equivalence Factor (unitless)	Toxicity Equivalent Soil Concentration (mg/kg)
<b>Soil Sample: HA3-SS</b>			
Benzo[a]pyrene	1.100	1.00	1.100
Benzo[a] anthracene	1.500	0.10	0.150
Benzo[b] fluoranthene	1.300	0.10	0.130
Benzo[k] fluoranthene	0.380	0.10	0.038
Chrysene	1.800	0.01	0.018
Dibenz[a,h]anthracene	0.220	0.40	0.088
Indeno[1,2,3-cd] pyrene	0.530	0.10	0.053
<b>Total</b>	<b>6.830</b>		<b>1.577</b>
<b>Method B Cleanup Level</b>			<b>0.137</b>
<b>Notes:</b>			
Unless otherwise noted, all analytical results are given in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).			
cPAHs = Carcinogenic Polynuclear Aromatic Hydrocarbons determined using EPA Test Method 8270c			
Method B = Ecology Model Toxics Control Act (MTCA) Method B Soil Cleanup Level for benzo[a]pyrene. Cleanup Levels and Risk Calculations under the MTCA Cleanup Regulation, CLARC.			

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**Table 1 - Summary of Soil Sample Analytical Results. J. Marcel Building,  
2320 to 2328 Pacific Avenue, Tacoma, WA 98402  
Riley Group, Inc. Project #2006-232c**

Sample ID	Sample Date	Sample Depth (in feet bgs)	PID (vppm) <sup>1</sup>	Diesel TPH	Oil TPH	Carcinogenic PAHs (cPAHs)						Total cPAHs	
						Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(k)fluoranthene	Benzo(a)anthracene		Benzo(b)fluoranthene
<i>Preliminary Phase I Sampling Event</i>													
HA2-1.0	12/7/2006	1	---	ND<29	ND<58	---	---	---	---	---	---	---	---
HA3-SS	12/7/2006	1	---	450	570	1.1	1.8	0.22	0.53	0.38	1.5	1.3	6.83
<i>Supplemental Phase II Sampling Event</i>													
SP1-8	12/3/2007	8	0	---	---	0.047	0.034	0.011	0.053	0.0096	0.025	0.039	0.2186
SP1-12	12/3/2007	12	0	---	---	0.019	0.02	ND<0.0087	0.014	ND<0.0087	0.014	ND<0.0087	0.087
SP1-16	12/3/2007	16	12.5	---	---	ND<0.0081	ND<0.0081	ND<0.0081	ND<0.0081	ND<0.0081	ND<0.0081	ND<0.0081	0
SP1-20	12/3/2007	20	14	ND<28	ND<56	0.34	0.28	0.045	0.25	0.095	0.2	0.32	1.53
SP2-4	12/3/2007	4	0	---	---	---	---	---	---	---	---	---	---
SP2-8	12/3/2007	8	0	---	---	---	---	---	---	---	---	---	---
SP2-12	12/3/2007	12	0	---	---	---	---	---	---	---	---	---	---
SP3-4	12/3/2007	4	0	---	---	---	---	---	---	---	---	---	---
SP3-8	12/3/2007	8	0	---	---	---	---	---	---	---	---	---	---
SP3-12	12/3/2007	12	109	ND<29	ND<59	ND<0.0078	ND<0.0078	ND<0.0078	ND<0.0078	ND<0.0078	ND<0.0078	ND<0.0078	0
SP3-14	12/3/2007	14	5.2	ND<28	ND<56	ND<0.0074	ND<0.0074	ND<0.0074	ND<0.0074	ND<0.0074	ND<0.0074	ND<0.0074	0
SP4-4	12/3/2007	4	0	---	---	---	---	---	---	---	---	---	---
SP4-8	12/3/2007	8	0	---	---	---	---	---	---	---	---	---	---
SP4-12	12/3/2007	12	0	---	---	---	---	---	---	---	---	---	---
SP4-16	12/3/2007	16	0	---	---	---	---	---	---	---	---	---	---
MITCA Method A Soil Cleanup Levels				2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0.100

Unless noted otherwise all results given in milligrams per kilogram (mg/kg), approximately equivalent to parts per million (ppm).  
<sup>1</sup> Soil samples were screened in the field using a photoionization detector (PID). Results are given in volumetric parts per million (vppm).  
 Diesel TPH = diesel total petroleum hydrocarbons determined using Ecology Test Method NWTPH-Dx with silica gel cleanup.  
 Oil TPH = oil total petroleum hydrocarbons determined using Ecology Test Method NWTPH-Dx with silica gel cleanup.  
 Carcinogenic PAHs = polynuclear aromatic hydrocarbons determined using EPA Test Method 8270C / SIM.  
 --- = not analyzed, or not applicable  
 ND, contaminant not detected at noted analytical detection limit.  
 MITCA = Model Toxics Control Act Method A Soil Cleanup Levels for Unrestricted Land Use (WAC 173-340-900, Table 740-1).  
**Bold and highlighted concentrations, if any, are at or above the applicable MITCA Soil Cleanup Level.**

THE RILEY GROUP, INC.

**Table 2 - Summary of Groundwater Grab Sample Analytical Results, J. Marcel Building,  
2320 to 2328 Pacific Avenue, Tacoma, WA 98402  
Riley Group, Inc. Project #2006-232c**

Sample ID	Sample Date	Depth to Groundwater (feet bgs)	Diesel TPH	Oil TPH	Carcinogenic PAHs (cPAHs)			Total cPAHs						
					Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene		Indeno(1,2,3-cd)pyrene	Benzo(k)fluoranthene	Benzo(a)anthracene	Benzo(b)fluoranthene		
<i>Preliminary Phase II Sampling Event</i>														
Soma-H <sub>2</sub> O	12/7/2006	---	ND<0.25	ND<0.40	ND<0.0095	ND<0.0095	ND<0.0095	ND<0.0095	0.01	ND<0.0095	0.01	ND<0.0095	0.01	
<i>Supplemental Phase II Sampling Event</i>														
Soma-H2O-2	12/3/2007	---	ND<0.25	ND<0.40	ND<0.010	0.02	ND<0.010	ND<0.010	ND<0.010	0.02	0.014	0.054		
SP2-H2O	12/3/2007	10.5	ND<0.27	ND<0.43	ND<0.017	ND<0.017	ND<0.017	ND<0.017	ND<0.017	ND<0.017	ND<0.017	0		
SP3-H2O	12/3/2007	9.5	ND<0.26	ND<0.41	ND<0.011	ND<0.011	ND<0.011	ND<0.011	ND<0.011	ND<0.011	ND<0.011	0		
SP4-H2O	12/3/2007	9	ND<0.25	ND<0.40	ND<0.018	ND<0.018	ND<0.018	ND<0.018	ND<0.018	ND<0.018	ND<0.018	0		
<b>MTCA Method A Cleanup Levels</b>														
			500	500										0.1

Unless noted otherwise all results given in micrograms per liter (µg/L); approximately equivalent to parts per billion (ppb).  
 † Sample was collected from water flowing into the basement from the concrete cut area above the former UST.  
 Diesel TPH = diesel total petroleum hydrocarbons determined using Ecology Test Method NWTPH-Dx with silica gel cleanup.  
 Oil TPH = oil total petroleum hydrocarbons determined using Ecology Test Method NWTPH-Dx with silica gel cleanup.  
 Carcinogenic PAHs = polynuclear aromatic hydrocarbons determined using EPA Test Method 8270C / SIM.  
 --- = not analyzed, or not applicable  
 ND, contaminant not detected at noted analytical detection limit.  
 MTCA = Model Toxics Control Act Method A Groundwater Cleanup Levels (WAC 173-340-900, Table 720-1).  
**Bold and highlighted concentrations, if any, are at or above the applicable MTCA Cleanup Level.**

THE RILEY GROUP, INC.

**Table 3 - Assessing the Carcinogenic Risk of Mixtures Using Toxicity Equivalence Factors.**  
**J. Marcel Building, 2320 to 2328 Pacific Avenue, Tacoma, Washington**

cPAHs	Soil Sample: SP1-8			Soil Sample: SP1-20		
	Measured Soil Concentration (mg/kg)	Toxicity Equivalence Factor (unitless)	Toxicity Equivalent Soil Concentration (mg/kg)	Measured Soil Concentration (mg/kg)	Toxicity Equivalence Factor (unitless)	Toxicity Equivalent Soil Concentration (mg/kg)
Benzo[a]pyrene	0.047	1.00	0.047	0.340	1.00	0.340
Benzo[a]anthracene	0.025	0.10	0.003	0.200	0.10	0.020
Benzo[b]fluoranthene	0.039	0.10	0.004	0.320	0.10	0.032
Benzo[k]fluoranthene	0.010	0.10	0.001	0.095	0.10	0.010
Chrysene	0.034	0.01	0.000	0.280	0.01	0.003
Dibenz[a,h]anthracene	0.011	0.40	0.004	0.045	0.40	0.018
Indeno[1,2,3-cd]pyrene	0.053	0.10	0.005	0.250	0.10	0.025
<b>Total</b>	<b>0.219</b>		<b>0.064</b>	<b>1.530</b>		<b>0.447</b>
<b>Method B Cleanup Level</b>			<b>0.137</b>			<b>0.137</b>

**Notes:**  
 Unless otherwise noted, all analytical results are given in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).  
 cPAHs = Carcinogenic Polynuclear Aromatic Hydrocarbons determined using EPA Test Method 8270c  
 Method B = Ecology Model Toxics Control Act (MTCA) Method B Soil Cleanup Level for benzo[a]pyrene. Cleanup Levels and Risk Calculations under the MTCA Cleanup Regulation, CLARC.

THE RILEY GROUP, INC.

## 6.5 Restrictive Covenant

After Recording Return to:

Department of Ecology  
Southwest Regional Office  
P.O. Box 47775  
Olympia, WA 98504-7775



### Environmental Covenant

Reference Number(s) of Related Documents: n/a

Grantor: Epic Partners, LLC, a Washington limited liability company

Grantee: State of Washington, Department of Ecology

Legal: Lots 6 to 12, inclusive, Block 2304 of the Tacoma Land Company's First Addition to Tacoma, W.T.

Tax Parcel No.: 2023040030

Grantor, Epic Partners, LLC, a Washington limited liability company, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant ( hereafter "Covenant" ) made this 20<sup>th</sup> day of February, 2008, in favor of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Epic Partners, LLC, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

The City of Tacoma determined that petroleum hydrocarbons had entered the City sewer via a floor drain/sump in the floor of the subject property building basement. The source of the petroleum was determined to be cut product lines associated with an abandoned Bunker C oil underground storage tank (UST) located beneath the building basement. The UST was subsequently decommissioned in-place with control-density fill by the former

owner. Consequently, a remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following documents:

- *Underground Storage Tank Decommissioning and Closure In Place, 2320 Pacific Avenue South, Tacoma, Washington, February 28, 2000, Creative Environmental Technologies, Inc.*
- *CML Phase I Environmental Site Assessment, Epic Building, 2320 to 2328 Pacific Avenue South, Tacoma, Washington, December 5, 2006, The Riley Group, Inc.*
- *Preliminary Phase II Subsurface Investigation, Epic Building, 2320 to 2328 Pacific Avenue South, Tacoma, Washington, December 18, 2006, The Riley Group, Inc.*
- *Supplemental Phase II Subsurface Investigation, J. Marcel Building (Former Juneau Street Associates Property), 2320 to 2328 Pacific Avenue South, Tacoma, Washington, June 22, 2008, The Riley Group, Inc.*

These documents are on file at Ecology's Southwest Regional Office.

In addition, compliance monitoring is required as part of this environmental covenant. A compliance monitoring plan and schedule has been attached as part of this environmental covenant. See attached plan: **Groundwater Compliance Monitoring Plan, J. Marcel Building Property (Former Juneau Street Associates Property), 2320 to 2328 Pacific Avenue, Tacoma, Washington, RGI Project 2006-232c, VCP #: SW0911**

This Covenant is required because the Remedial Action resulted in residual concentrations of carcinogenic polynuclear aromatic compounds (cPAHs) which exceed the Model Toxics Control Act Method A and B Cleanup Level(s) for soil established under WAC 173-340-740.

The undersigned, Epic Partners, LLC, is the fee owner of real property (hereafter "Property") in the County of Pierce, State of Washington, that is subject to this Covenant. The Property is legally described as follows:

- Lots 6 to 12, inclusive, in Block 2304 of the Tacoma Land Company's First Addition to Tacoma, W.T., according to Plat

thereof filed for record July 7, 1884 in the office of the County Auditor.

Situate in the City of Tacoma, County of Pierce, State of Washington.

Assessor's Property Tax Parcel Number: 2023040030.

Epic Partners, LLC makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

~~Section 1. A portion of the Property contains ePAH contaminated soil located immediately adjacent to the former closed-in-place underground storage tank beneath the building basement. The building basement is centrally located along the western Property boundary. The Owner shall not alter, modify, or remove the existing structure[s] in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.~~

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

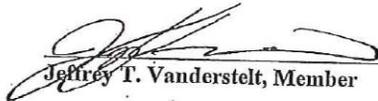
Section 5. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.

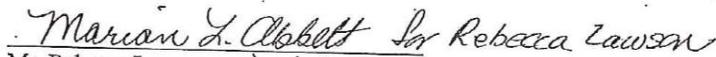
Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

EPIC PARTNERS, LLC

  
Jeffrey T. Vanderstelt, Member

Dated: 2/20/2008

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

  
Ms. Rebecca Lawson

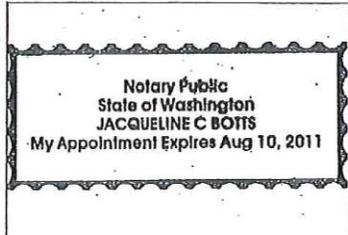
Section Manager – Toxics Cleanup Program Southwest Regional Office

Dated: 2/19/08

STATE OF WASHINGTON            )  
  ) ss.  
COUNTY OF PIERCE            )

I certify that I know or have satisfactory evidence that Jeffrey T. Vanderstelt is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as a Member of EPIC PARTNERS, LLC, a Washington limited liability company, to be the free and voluntary act for the uses and purposes mentioned in the instrument.

DATED this 20 day of February; 2008.



*Notary Seal*

Jacqueline C. Botts  
Jacqueline C. Botts (Name)  
NOTARY PUBLIC in and for the State of  
Washington residing at: Tacoma, Washington  
My Commission Expires: Aug 10, 2011

## 6.6 Photo Log

**Photo 1: J Marcel Enterprises Sign on West Side of the Building on Commerce Street**



**Photo 2: J Marcel Building Entrance on Commerce Street**



**Photo 3: View of West Side of the Site Building and Commerce Street-From Northwest**



**Photo 4: View of West and South Side of the Site Building: From Southwest Corner of Commerce Street and 24<sup>th</sup> Street**



**Photo 5: Site Building Basement/Former Underground Storage Tank Decommissioned  
Location and Concrete Flooring on the Contaminated Soil**



**Photo 6: Site Building Basement/Former Underground Storage Tank Decommissioned  
Location and Concrete Flooring on the Contaminated Soil**



**Photo 7: View of East Side of the Site Building and Pacific Avenue-From Northeast**



**Photo 8: View of East and West Side of the Site Building, Corner of Pacific Avenue and 24<sup>th</sup> Street: From Southeast**

