

### ERTS 561330

### Adapt Engineering, Inc.

615 – 8<sup>th</sup> Avenue South Seattle, Washington 98104

> Tel (206) 654-7045 Fax (206) 654-7048

March 19, 2007 Adapt Project No. No. WA07-14518-PH1/2

4233 Meridian Avenue North Seattle, WA 98103

Attention:

Mr. Robert Boggess

Subject:

Summary Letter - Phase I/Limited Phase II Environmental Site Assessment

**Automall Property** 

1401 Sprague Avenue South

Seattle, Washington

Dear Mr. Boggess:

The following is Adapt Engineering, Inc.'s (Adapt's) Summary Letter of preliminary results of our Phase I/Limited Phase II Environmental Site Assessment of the above-referenced site. Our preliminary findings are as follows:

- The subject site was originally developed with the Pierce County Transit vehicle maintenance and fueling facility, that included 10 petroleum underground storage tanks (USTs), two oil/water separators, six service pits, hydraulic hoists, and chemical storage areas.
- Pierce Transit operations on the property ceased in 1987. Applied Geotechnology, Inc. (AGI) completed subsurface remediation associated with a waste oil line leak and other contaminant source areas at the facility. According to AGI's report, an estimated 3,700 cubic yards of petroleum contaminated soil were excavated and disposed of off-site. Also, the report indicated that 45,000 gallons of oily water was pumped from the site excavations and disposed of off-site. However, the original building walls and foundations remained in the place, and petroleum hydrocarbon contaminated soils reportedly remain adjacent to some of the building footings.
- The building was redeveloped into the current self-storage facility in 1995. At that time, excavation for the sign on the northwest corner of the property encountered petroleum impacted soil and groundwater, in the approximate location of one of the pre-1995 Pierce Transit oil/water separators. According to the report, soils tested from the excavation exhibited a diesel range total petroleum hydrocarbon (TPH) concentration of 160 parts per million (ppm), which was below the Washington Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup level. However, a groundwater sample collected from the open excavation exhibited a TPH concentration of 1.2 ppm, which was in excess of MTCA Method A cleanup level. The excavation was subsequently pumped, and a second groundwater sample collected from the open excavation did not exhibit a detectable concentration of TPH.

- The southwest portion of the site was developed in 1995 with a Shell mini-service and convenience store with two fueling islands and three gasoline USTs.
- The site was subsequently submitted to Ecology for review under its Voluntary Cleanup Plan in 2002 by Saltbush Environmental. Based upon its review, Ecology subsequently granted the site "No Further Action" (NFA) status, with a restrictive covenant for the residual contaminated soils that remain in place at the site.
- Adapt's current limited subsurface environmental assessment included advancing six (6) geoprobe borings to depths of up to 12 feet below ground surface (bgs), and analytical testing of recovered soil and groundwater sample. Boring locations are depicted on the attached Site and Vicinity Plan, Figure 3. Selected soil samples screened from borings did not exhibit detectable concentrations of gasoline through motor oil-range TPH. However, a soil sample collected from boring GP-4 (GP-4/9-10), drilled adjacent to the Shell station pump islands, exhibited a benzene concentration of 0.42 parts per million (ppm), which is in excess of the MTCA Method A cleanup level of 0.03 ppm (See Table 1 below).

		Table 1	: Summ	ary of An	alytical R	esults: S	oil	•	ŕ
Sample ID	Sample Depth (ft)	TPH-G (ppb)	TPH-D (ppb)	TPH-HO (ppb)	TPH-MO (ppb)	B (ppb)	T (ppb)	E (ppb)	(ppb)
GP-1/11-12	11 to 12	<20	<50	<100	<100	NT	NT	NT	NT
GP-2/9-10	9 to 10	<20	<50	<100	<100	NT	NT	NT	NT
GP-3/9-10	9 to 10	<20	<50	<100	<100	NT	NT	NT	NT
GP-4/9-10	9 to 10	<10	NT	NT	NT	0.42	<0.05	<0.05	<0.05
GP-5/11-12	11 to 12	<10	NT	NT	NT	<0.02	<0.05	<0.05	<0.05
GP-6/6-7	6 to 7	<20	<50	<100	<100	NT	NT	NT	NT
MTC	CA	30/100	2,000	2,000	4,000	0.03	7	6	9

ppm = All concentrations reported in parts per million (ppm)

TPH = Total Petroleum Hydrocarbons - gasoline, diesel and heavy oil and Mineral oil-range TPH by Ecology Methods NWTPH-G and NWTPH-Dx

BTEX = Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020

MTCA = Model Toxics Control Act (Method A Cleanup levels shown)

• Shallow groundwater was encountered in all of the borings at depths ranging from approximately 3½ to 7 feet bgs. The groundwater sample collected from boring GP-1, located near the sign on the northwest portion of the site and former Pierce Transit oil/water separator, exhibited elevated concentrations of gasoline, diesel, and motor oil-range TPH that were in excess of the respective MTCA Method A cleanup levels. Groundwater samples collected from Borings GP-4 and GP-5, drilled adjacent to the service islands and petroleum USTs associated with the onsite Shell station, exhibited elevated concentrations of benzene that were in excess of the MTCA cleanup level. Also, sample GP-5/W-1 exhibited an elevated concentration of gasoline-range TPH that is in excess of the MTCA Method A cleanup level for groundwater with detectable benzene. Groundwater samples collected from other on-site borings, drilled to the west

of the Automall building (GP-2 and GP-3), and the former Pierce Transit fueling facility located near the northeast corner of the site (GP-6), did not exhibit detectable concentrations of gasoline through mineral oil-range TPH, and non-detectable to low level concentrations of volatile organic compounds (VOCs) that are below MTCA cleanup levels. Groundwater analytical test results are summarized below:

		Table 2	: Summary o	of Analytical Re	esults: Grour	ndwater	***************************************	
Sample ID	TPH-G (ppb)	TPH-D (ppb)	TPH-O (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	Other VOCs (ppb)
GP-1/W-1	3,100	29,000	63,000	1,1	5.6	1.1	4.4	* See below
GP-2/W-1	<250	<400	<400	<1.0	<1.0	<1.0	<1.0.	ND
GP-3/W-1	<250	<400	<400	<1.0	<1.0	<1.0	<1.0	ND
GP-4/W-1	670	NT	NT	330	16	24	82	NT
GP-5/W-1	890	NT	NT	530	50	<1.0	22	NT ·
GP-6/W-1	<100	<200	<400	<1.0	1.1	<1.0	2.6	ND
MTCA	800/1,000	500	500	5	1,000	700	1,000	varies

ppm = All concentrations reported in parts per billion (ppb)

### **Conclusions and Recommendations**

The results of Adapt's current assessment revealed the presence of petroleum hydrocarbon-impacted groundwater in the area of the former Pierce Transit oil/water separator, and benzene impacted groundwater adjacent to the UST and service islands associated with the on-site Shell station. These conditions represent a potential "Recognized Environmental Condition" associated with the property. Further subsurface sampling and analytical testing work would be required to assess the extent of the groundwater contamination plume and the potential monetary liability associated with the release.

The results of our assessment revealed the presence of soils exhibiting TPH concentrations in excess of MTCA Method A cleanup levels. According to WAC 173-340-300, "any owner or operator who has information that a hazardous substance has been released to the environment at the owner or operator's facility and may be a threat to human health and the environment shall report such information to the department (of Ecology) within 90 days of discovery. Releases from underground storage tanks shall be reported by the owner or operator of the underground storage tank within 24 hours of release confirmation, in accordance with WAC 173-340-450." We recommend contacting an environmental attorney regarding this issue.

TPH = Total Petroleum Hydrocarbons - gasoline, diesel and oil- range by Ecology Methods NWTPH-G and NWTPH-Dx

BTEX = Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020

MTCA = Model Toxics Control Act (Method A Cleanup levels shown)

<sup>\* =</sup> sample also exhibited detectable concentrations of chlorobenzene (9.2 ppb), n-Propylbenzene (1.1 ppb), 1,2,4 Trimethylbenzene (6.1 ppb), and sec-Butylbenzene (1.9 ppb).

### Limitations

Information contained in this report is based upon site characterization, field observations, and the laboratory analyses completed for this study. Conclusions presented are professional opinions based upon our interpretation of the analytical laboratory test results, as well as our experience and observations during the field activities. The location and depth of the exploration, as well as the analytical scope were completed within the site and proposal constraints. Adapt's observations and the analytical data are limited to the vicinity of each test boring and do not necessarily reflect conditions across the site. No other warranty, express or implied is made. In the event that additional information regarding either the site or surrounding properties becomes known, or changes to existing conditions occurs, the conclusions in this report should be reviewed, and if necessary, revised to reflect the updated information. Project specific limitations are presented in the appropriate sections of this report.

We appreciate the opportunity to be of service to you. If you have any questions or need additional information, please call us at your convenience.

Respectfully submitted,

Adapt Engineering, Inc.

Charles C. Cacek, L.E.G. Senior Project Manager

CHARLES C. CACEK

Daryl S. Petrarca, L.H.G

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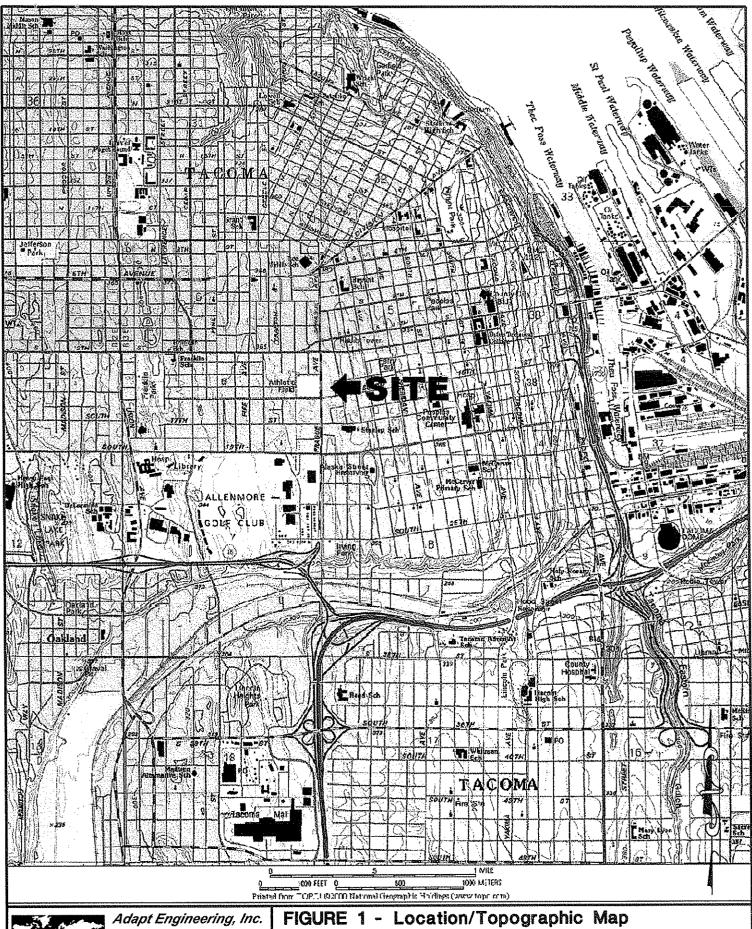
Attachments:

Figure 1 - Topographic/Location Map

Figure 2 - Parcel Map

Figure 3 - Site and Vicinity Plan

**Analytical Test Certificates** 





### Adapt Engineering, Inc. 615 - 8th Avenue South Seattle, Washington 98104

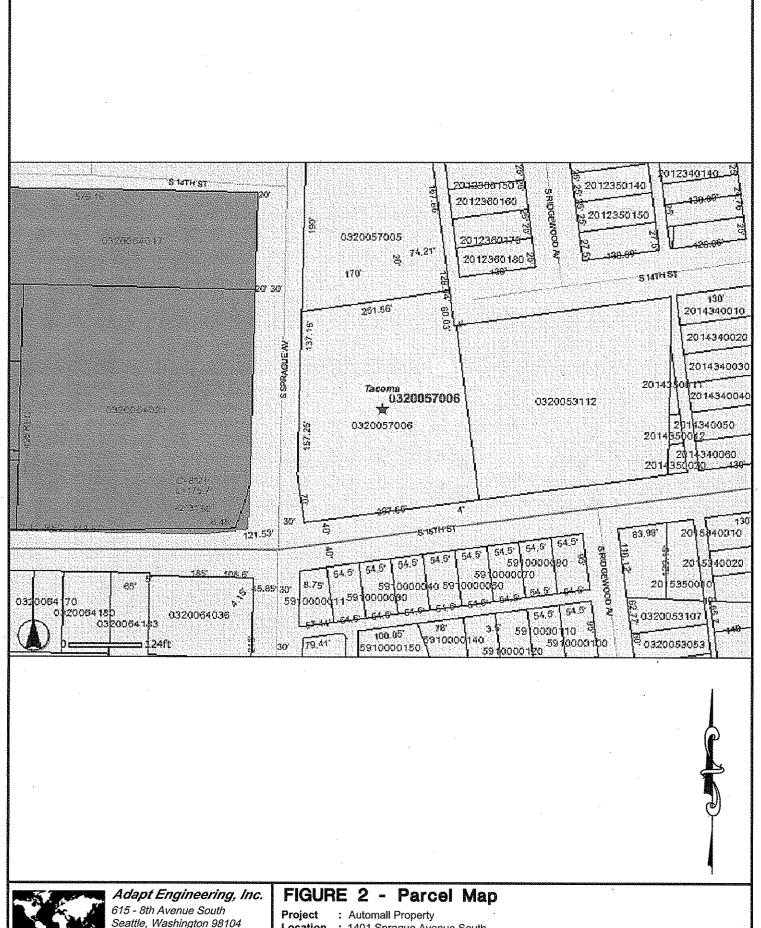
Tel (206) 654-7045 Fax (206) 654-7048 Project : Automall Property

Location : 1401 Spraque Avenue South

Tacoma, WA 98405

Client : Bob Boggess

Project No: WA07-14518-PH1 Date: 03/13/07





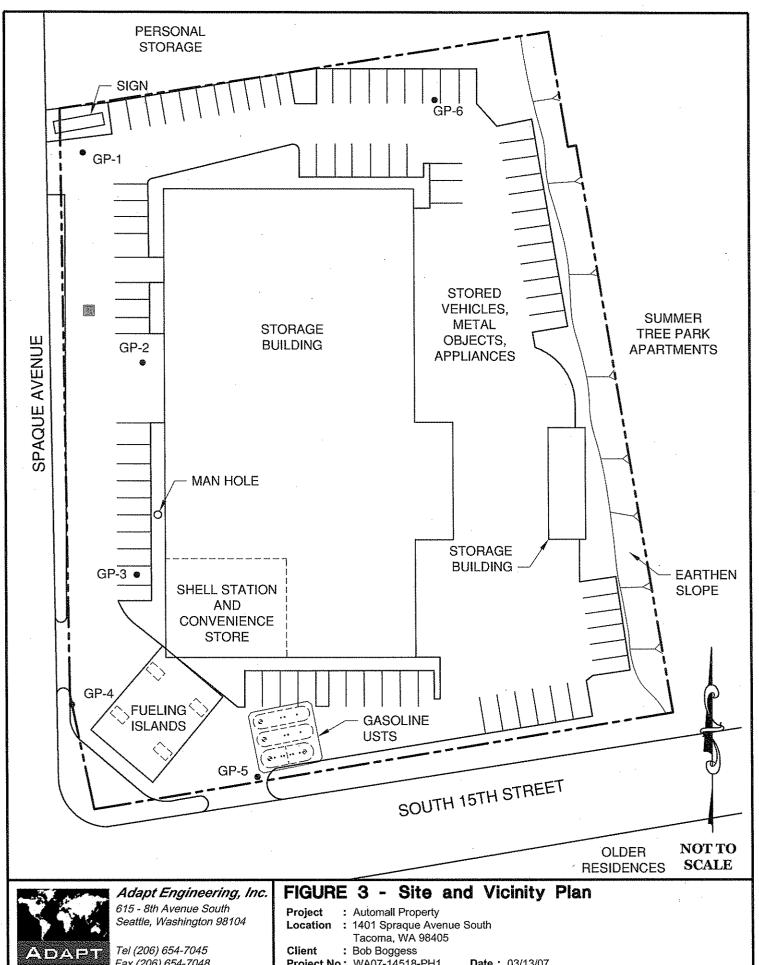
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Tacoma, WA 98405

: Bob Boggess

Project No: WA07-14518-PH1 Date: 03/13/07



Fax (206) 654-7048

Project No: WA07-14518-PH1 Date: 03/13/07

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Adapt Engineering Inc.
Client Project #W407-14518-PH2

ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

### Hydrocarbon Identification by NWTPH-HCID for Soil

Sample	Date	Surrogate	Casoline	Diesel	Heavy Oil	Mineral Oil
Number	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Method Blank	3/5/2007	101	pď	a	рd	Ed.
GP-1/11-12	3/5/2007	104	2.	nd.	nd.	<b>6</b>
GP-2/9-10	3/5/2007	<u>-</u>	3 <u>6</u> .	ad.	ā.	<b>5</b>
GP-3/9-10	3/5/2007	96	ጀ	nd.	E.	Pig
GP-6/6-7	3/5/2007	සි	ъф	pd	3	Z
GP-6/6-7 Dup.	3/5/2007	91	a	70.	昱	īd
Method Detection Limits			20	50	000	8

"On Indicates detected above the listed detection limit.
"int" Indicates that interference prevents determination.

"nd" indicates not detected at listed detection limits.

ANALYSES PERFORMED BY: M.Olson & S.Loague

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

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To ( ) Co./Dept Co.
Phone # Phone # Fax # Fax #

**AUTOMALL PROJECT** 

## ESN NORTHWEST CHEMISTRY LABORATORY

Client Project #W407-14518-PH2 Adapt Engineering Inc. Tacoma, Washington

1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 **ESN Northwest** lab@esnnw.com (360) 459-3432 Fax

## Hydrocarbon Identification by NWTPH-HCID for Waters

Sample	Date	Surrogate	Gasoline	Diesel	Heavy Oil	Mineral Oil
Number	Analyzed	Recovery (%)	(Ngn)	(lig/l)	(l/gu)	(ug/i)
Method Blank	3/5/2007	99	nd	nd	a	nd
GP-1/W-1	3/5/2007	int	<b>5</b>	<del>-</del>	<del>-</del>	E.
GP-2/W-1	3/5/2007	99	nd.	D.	<b>1</b> 0.	
GP-3/W-1	3/5/2007	100	<b>2</b> .	<b>Z</b> .	nd.	ם י
GP-6/W-1	3/5/2007	125	2	nd	pa	<b>2.</b>
Method Detection Limits	in is		250	<b>400</b>	406	400

"nd" Indicates not detected at listed detection limits.

"int" indicates that interference prevents determination. "D" indicates detected above the listed detection limit.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

ANALYSES PERFORMED BY: M.Olson & S.Loague

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Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

# Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8021B) in Soil

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline	Surrogate
Number	Analyzed	(mg/kg)	(ന <i>ളി</i> ശ്ല)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	3/5/2007	pu	pri	nd	nd	nd	50)
S S	3/5/2007	109%	73%	%00j	98%		126
CP-4/9-10	3/5/2007	0.42	2	귬.	콗,	a.	92
GP-5/11-12	3/5/2007	nd.	nd.	nd	prod ·	nd.	89
Method Detection Limits	imits	0.02	20.0	0.05	0.05	10	

<sup>&</sup>quot;--" Indicates not tested for component.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Chlorobenzene) & LCS: 65% TO 135%

ANALYSES PERFORMED BY: M.Okon & S.Lozgue

<sup>&</sup>quot;int" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

Tacoma, Washington AUTOMALL PROJECT Adapt Engineering Inc.

Client Project #W407-14518-PH2

Olympia, WA 98501 (360) 459-4670 (3 **ESN Northwest** lab@esnnw.com [210 Eastside Street SE Suite 200 (360) 459-3432 Pax

# Analyses of Casoline (NWTPH-Cx) & BTEX (EPA Method 8021B) in Water

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Casoline	Surrogate
Number	Analyzed	(ug/1)	(1/g/I)	(1/gu)	(ug/l)	(ug/l)	Recovery (%)
Method Blank	3/5/2007	ad	pti	nd	nd	nd	105
CCS	3/5/2007	<b>109%</b>	73%	100%	%86	•	126
GP-1/W-1	3/5/2007	쿱.	ā.	74	<b>p</b> d	*3100	
GP-4/W-1	3/5/2007	330	56	24	82	670	117
GP-5/W-1	3/5/2007	530	50	nd	22	890	108
Method Detection Limits	i k	p4.	_		<b></b>	100	

" \* " Indicates gas range hydrocarbon possible kerosene.

"nd" Indicates not detected at the listed detection limits.

"int" indicates that interference prevents determination.

ANALYSES PERFORMED BY: M.Olson & S.Loague

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Chlorobenzene) & LCS: 65% TO 135%

AUTOMALL PROJECT
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Client Project #W407-14518-PH2

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### Analyses of Diesel & Oll (NWTPH-Dx/Dx Extended) in Water

Sample	Date	Surrogate	Diesel	Oil	Mineral Oil
Number	Analyzed	Recovery (%)	(ug/l.)	(ug/l.)	(ug/l.)
Method Blank	3/5/2007	95	nd	nd	nd
GP-1/W-1	3/5/2007	int.	29,000	63,000	nd
Method Detection Limits			200	400	400

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

ANALYSES PERFORMED BY: M.Olson & S.Loague

<sup>&</sup>quot;int" Indicates that interference prevents determination.