

**FINAL REPORT**  
**SITE ASSESSMENT, REMEDIAL INVESTIGATION AND CONCLUSIONS**

**SUNFAIR CHEVROLET**  
**1600 East Yakima Avenue**  
**Yakima, Washington**



**May 2014**  
**Job No. 13109**

**PLSA ENGINEERING & SURVEYING**  
**1120 West Lincoln Avenue**  
**Yakima, WA 98902**  
**(509) 575-6990**

## **FINAL REPORT**

### **SITE ASSESSMENT, REMEDIAL INVESTIGATION AND CONCLUSIONS**

#### **SUNFAIR CHEVROLET 1600 East Yakima Avenue Yakima, Washington**

Site Name: Sunfair Chevrolet  
Address: 1600 East Yakima Avenue, Yakima, Washington  
Facility/Site ID No.: 49569148  
Cleanup ID No.: 6173  
VCP ID No.: CE0393

#### **INTRODUCTION**

Five underground storage tanks were removed from the Sunfair Chevrolet premises in 1998. See Figure 1, Monitoring Well Locations. Tank Basin No. 3 was found to have petroleum contaminated soil extending below the groundwater. The tank basin excavation was dewatered by pumping and discharge through a coalescing plate oil/water separator and all accessible petroleum contaminated soil was removed. A small amount of petroleum contaminated soil extended beneath the bottom of a concrete slab at the east edge of the tank basin. This soil could not be removed without destroying the slab and was therefore left in place. Groundwater in the excavation was sampled and found to be free of petroleum contamination.

Tank Basin No. 5 was found to contain 792 µg/l methylene chloride, which exceeds the 500 µg/l MCTA cleanup level. Methylene chloride readily volatilizes, so Tank Basin No. 5 was left open for several weeks to allow the methylene chloride to evaporate.

Tank basins were located at the south end of the auto service building. See Figure 1, UST Locations. Project location is in the NW 1/4, NW 1/4, SEC 20, TWP 13N, RNG 18 EWM. Geographical coordinates determined from Yakimap are 46° 36' 14.472"N and -120° 28' 53.999"W. Elevation from Yakimap is 1030.

The owner's representative and contact person for this project follows:

Mr. Bob Hall  
Sunfair Chevrolet  
1600 East Yakima Avenue  
Yakima, WA 98901

509 426 7808

## SITE CONDITIONS

Sunfair Chevrolet is one of the largest automobile dealerships in Yakima. The gently sloping site is entirely paved or covered by buildings. Depth to groundwater varies seasonally, but is typically within 10 feet of the ground surface.

## HYDRAULIC GRADIENT & GROUNDWATER DEPTH

**Table 1**  
**11/5/13**

Well No.	NAVD88 TOC Elev.	Groundwater Depth	Static Water Level
2	1031.25	-7.78	1023.47
3	1032.53	-9.06	1023.47
1	1031.25	-8.35	1023.80

With the water level elevations of Well Nos. 2 and 3 being identical, the direction of the hydraulic gradient can't be calculated. However, it is clear the groundwater flows east from Well No.1 toward the other two wells.

**Table 2**  
**3/4/14**

Well No.	NAVD88 TOC Elev.	Groundwater Depth	Static Water Level
2	1031.25	-8.75	1022.50
3	1032.53	-9.94	1022.59
1	1031.25	-8.95	1022.30

Hydraulic gradient is 180 degrees from true north.

Washington State Plane Coordinates for the monitoring wells are found in the following Table 3:

**Table 3**  
**3/4/14**

Well No.	NAVD88 TOC Elev.	Northing	Easting
2	1031.25	463158.983	164991.537
3	1031.53	463206.461	164991.021
1	1031.25	463210.664	164954.702

## **WATER SAMPLING REQUIREMENTS AND PLAN**

Washington State Department of Ecology (WDOE) "Guidance for Site Check/Site Assessment for UST" was used to develop the water and soil sampling plan and procedures. Samples were analyzed for waste oil constituents as found in Table 7-2 of the Guidance.

Sample containers were clean glass with Teflon lined screwed caps as supplied by Valley Environmental Laboratory, WDOE Accreditation C345. Sampling equipment was cleaned with non-petroleum based detergent between samplings. All samples were delivered to the nearby laboratory immediately following collection. Water samples were labeled SF1, SF2, and SF3.

After purging a minimum of three casing volumes from each monitoring well, each well was sampled and the sample delivered to Valley Environmental Laboratory for analysis for the constituents listed for gasoline, heavy oils and waste oil and crude oil in the attached, which included NWTPH-HCID, NWTPHD, NWTPHG, BTEX cadmium, chromium, nickel, zinc, PCB, and halogenated VOC in accordance with Table 7-2 of Guidance for Petroleum Contaminated Sites.

## **SOIL SAMPLING**

Monitoring well Numbers 1 and 3 are located in an area that is covered with a concrete slab where automobiles are washed. Well drilling required that a section of the concrete slab approximately one foot in diameter be removed by coring. This allowed visual inspection of the upper two to five feet of the well for possible presence of stained soil or other evidence of contamination. Soil sample collection was by a hand auger which was not successful where large cobbles were encountered. When this occurred, the drill bit was retracted, the chip collector purged, the drill bit re-inserted and the first cuttings from the collector were placed in the sample jar. This procedure enabled sampling from a known elevation. Soil samples were labeled SF1A, SF1B, SF2A, SF2B, SF3A, and SF3B. The A designation indicated that the sample was collected within 1 and 2 feet below the paved surface and the B designation indicates that the sample was collected 5 feet below the A location.

Laboratory testing of soil from UST 3, Well No. 3, included all required testing for waste oil releases as noted in Table 830-1, WAC 173 340. Analysis was in accordance with Table 7.3 of the Guidance for Petroleum Contaminated Sites. Field screening of soil with a photoion detector (PID) and other methods was used in all sampling to determine if contamination was present. No contamination was found using these methods.

## **SOIL SAMPLE MANAGEMENT**

Washington State Department of Ecology (WDOE) "Guidance for Site Check/Site Assessment for UST" was used to develop the water and soil sampling plan and procedures. Sample containers were clean glass with Teflon lined screwed caps as supplied by Valley Environmental Laboratory, WDOE Accreditation C345. Sampling equipment was cleaned with non-petroleum



based detergent between samplings. All samples were delivered to the nearby laboratory immediately following collection.

Soil samples were delivered to Valley Environmental Laboratory for analysis for the constituents listed for gasoline, which included NWTPH-HCID, NWTPHD, NWTPHG, BTEX, and lead in accordance with Table 7-2 of Guidance for Petroleum Contaminated Sites.

### **INITIAL SOIL ANALYTICAL RESULTS**

Soil samples were collected from well drilling cuttings on October 31, 2013 and immediately delivered to Valley Environmental Laboratory, WDOE Certification #153, for analysis. The chain of custody and laboratory analytical report may be found in **Appendix I**. All analytical results were below MCTA levels with the exception of one soil sample in which lead was found to be in excess of the 250 mg/kg Table A value. This sample was collected approximately 4 feet below another sample nearer the surface which showed a very low value for lead and so represents a very small volume of soil and was likely to be result of an isolated lead particle and not representative of the sample location. All other analates were below MCTA Table A values.

### **INITIAL GROUNDWATER ANALYTICAL RESULTS**

The three monitoring well locations are shown in **Figure 1**. The results of initial groundwater sampling may also be found in **Appendix I**. All samples analyzed below MCTA Table A values.

### **SECOND GROUNDWATER ANALYTICAL RESULTS**

On March 4, 2014, groundwater in the three monitoring wells was again sampled. Analytical results may be found in **Appendix II**. All results were either non-detect or within MCTA Table A limits.

### **FURTHER ACTION**

The three monitoring wells will remain in place. A “No Further Action” statement from the Washington State Department of Ecology is being sought. Otherwise, no further action is planned or recommended.

**APPENDIX I**

**NOVEMBER 2013 ANALYTICAL RESULTS**

**SOIL AND WATER**

# CHAIN OF CUSTODY RECORD



201 East D Street  
Yakima, WA 98901  
(509) 575 - 3999  
Fax: (509) 575 - 3068

THIS INFORMATION WILL BE FOR REPORTING ONLY (SEE BELOW)

CLIENT: PLSA Engineering & Surveying  
ADDRESS: 1120 W. Lincoln Ave.  
Yakima, WA 98902  
ATTENTION: Brad Card  
PROJECT NAME: 13109  
PROJECT CONTACT: Brad Card  
TELEPHONE: 509 575 6990 FAX: 575 6993  
Sampled By: Brad Card

WORK ORDER ID # \_\_\_\_\_

PAGE \_\_\_\_\_ OF \_\_\_\_\_

NO. OF CONTAINERS \_\_\_\_\_

MATRIX: WATER, SOIL OR SPECIFY \_\_\_\_\_

TESTS TO PERFORM

TESTS TO PERFORM	NO. OF CONTAINERS	MATRIX: WATER, SOIL OR SPECIFY	DATE	TIME	LAB NAME	SAMPLE ID / LOCATION
NWTPH-GX A	1					SP3A
NWTPH-DX A	1					SP3B
Method B or C VPH	1					SP3A
Method B or C EPH	1					
2-Hexane	1					
BTX	1					
MTBE	1					
Ethylbenzene	1					
PCB	1					
Mercury chloride	1					

INSTRUCTIONS:

1. USE ONE LINE PER SAMPLE.
2. BE SPECIFIC IN TEST REQUESTS.
3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE.

A. A standard turnaround time is assumed unless otherwise marked. B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

RELINQUISHED BY (SIGN AND PRINT): Brad Card DATE: 10/31/13 TIME: 15:15

RECEIVED BY (SIGN AND PRINT): [Signature] DATE: 10/31/13 TIME: 15:15

NAME: \_\_\_\_\_ CITY/STATE/ZIP: \_\_\_\_\_

ATTN: \_\_\_\_\_

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

DATE: 10/31/13 TIME: 15:15

TOTAL NO. OF CONTAINERS: \_\_\_\_\_

☒ Standard 10 Business Days  
☐ 24-48 Hrs. 100% Rush  
☐ 3-Day Rush - 80%  
☐ 1 week Rush - 50%

[illegible]

[illegible]








**VALLEY Environmental Laboratory****201 East D St.****Yakima, WA 98901****(509) 575 - 3999 Fax: (509) 575 - 3068**

<b>Washington State DOE Accredited Lab #C345</b>		<b>Date Reported:</b> 11/25/13 <b>Date Collected:</b> 11/01/13 <b>Time Collected:</b> 11:00 AM <b>Sampled By:</b> Brad Card			
<b>Sampled At: See Below</b>		<b>Pjt# 13109</b>			
<b>PLSA Engineering</b> <b>Attn: Scott Garland</b> <b>1120 West Lincoln Avenue</b> <b>Yakima, WA 98902</b>					
<b>Volatile Organic Chemicals</b>		<b>Method: EPA 8260B</b>		<b>Matrix: Soil</b>	
VEL Sample #	<b>3526</b>	<b>3527</b>	<b>3528</b>	<b>3529</b>	
Sample ID	<b>SF1A</b>	<b>SF1B</b>	<b>SF3A</b>	<b>SF3B</b>	
Units	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>Limits</b>
<b>Check Standards - Ave.Recovery:</b>					
1,2-Dichlorobenzene-d4	100.0%	98.4%	100.0%	92.0%	(70-130)
4-Bromofluorobenzene	100.8%	100.8%	100.8%	98.8%	(70-130)
Toluene-d8	101.6%	102.0%	102.0%	100.8%	(70-130)
Dichlorodifluoromethane	ND	ND	ND	ND	0.005
Chloromethane	ND	ND	ND	ND	0.005
Vinyl chloride	ND	ND	ND	ND	0.005
Bromomethane	ND	ND	ND	ND	0.005
Chloroethane	ND	ND	ND	ND	0.005
Acetone	ND	ND	ND	ND	0.005
Acrolein	ND	ND	ND	ND	0.005
1,1-Dichloroethylene	ND	ND	ND	ND	0.005
Methylene chloride	ND	ND	ND	ND	0.005
Acrylonitrile	ND	ND	ND	ND	0.005
trans-1,2-Dichloroethylene	ND	ND	ND	ND	0.005
1,1-Dichloroethane	ND	ND	ND	ND	0.005
Methyl ethyl ketone (MEK)	ND	ND	ND	ND	0.005
cis-1,2-Dichloroethylene	ND	ND	ND	ND	0.005
2,2-Dichloropropane	ND	ND	ND	ND	0.005
Chloroform	ND	ND	ND	ND	0.005
Bromochloromethane	ND	ND	ND	ND	0.005
1,1,1-Trichloroethane	ND	ND	ND	ND	0.005
1,2-Dichloroethane	ND	ND	ND	ND	0.005
1,1-Dichloropropene	ND	ND	ND	ND	0.005
Carbon tetrachloride	ND	ND	ND	ND	0.005
Benzene	ND	ND	ND	ND	0.005
Trichloroethylene	ND	ND	ND	ND	0.005
<b>Date Analyzed:</b>	11/13/2013	11/13/2013	11/13/2013	11/13/2013	
<b>Analyst:</b>	AAL	AAL	AAL	AAL	

ND = None Detected

**VALLEY Environmental Laboratory**  
**201 East D St.**  
**Yakima, WA 98901**  
**(509) 575 - 3999 Fax: (509) 575 - 3068**

Volatile Organic Compounds (Continued)					
VEL Sample #	3526	3527	3528	3529	
Sample ID	SF1A	SF1B	SF3A	SF3B	
Units	mg/kg	mg/kg	mg/kg	mg/kg	Limits
1,2-Dichloropropane	ND	ND	ND	ND	0.005
Dibromomethane	ND	ND	ND	ND	0.005
Bromodichloromethane	ND	ND	ND	ND	0.005
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.005
Toluene	0.007	0.0058	ND	ND	0.005
trans-1,3-Dichloropropene	ND	ND	ND	ND	0.005
1,1,2-Trichloroethane	ND	ND	ND	ND	0.005
1,3-Dichloropropane	ND	ND	ND	ND	0.005
Dibromochloromethane	ND	ND	ND	ND	0.005
Tetrachloroethylene	ND	ND	0.0170	ND	0.005
1,2-Dibromoethane	ND	ND	ND	ND	0.005
Chlorobenzene	ND	ND	ND	ND	0.005
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	0.005
Ethylbenzene	ND	ND	ND	ND	0.005
m,p-Xylene	0.0095	0.0102	0.0062	ND	0.005
Styrene	ND	ND	ND	ND	0.005
o-Xylene	0.0056	ND	ND	ND	0.005
Bromoform	ND	ND	ND	ND	0.005
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	0.005
1,2,3-Trichloropropane	ND	ND	ND	ND	0.005
Bromobenzene	ND	ND	ND	ND	0.005
n-Propylbenzene	ND	ND	ND	ND	0.005
2-Chlorotoluene	ND	ND	ND	ND	0.005
4-Chlorotoluene	ND	ND	ND	ND	0.005
1,3,5-Trimethylbenzene	ND	ND	ND	ND	0.005
tert-Butylbenzene	ND	ND	ND	ND	0.005
1,2,4-Trimethylbenzene	ND	0.0055	ND	ND	0.005
sec-Butylbenzene	ND	ND	ND	ND	0.005
1,3-Dichlorobenzene	ND	ND	ND	ND	0.005
1,4-Dichlorobenzene	ND	ND	ND	ND	0.005
4-Isopropyltoluene	ND	ND	ND	ND	0.005
1,2-Dichlorobenzene	ND	ND	ND	ND	0.005
n-Butylbenzene	ND	ND	ND	ND	0.005
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	0.005
1,2,4-Trichlorobenzene	ND	ND	ND	ND	0.005
Naphthalene	0.013	ND	ND	0.0110	0.005
AAL	11/13/2013	11/13/2013	11/13/2013	11/13/2013	
Analyst:	AAL	AAL	AAL	AAL	
Page 2 of 3 					

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# CHAIN OF CUSTODY RECORD



201 East D Street  
Yakima, WA 98901  
(509) 575 - 3999  
Fax: (509) 575 - 3068

WORK ORDER ID #

PAGE OF

## TESTS TO PERFORM

MATRIX: WATER, SOIL OR SPECIFY	NO. OF CONTAINERS	NWTRH-GX A	Method B or C VPH	Method B or C EPH	2-Hexane	MTBE	Ethylbenzene	PCB	Naphthalene	Priority Pollutant	Halogenated VOC	Observations, Comments, Special Instructions

THIS INFORMATION WILL BE FOR REPORTING ONLY (SEE BELOW)

CLIENT: PLSA Engineering & Surveying

ADDRESS: 1120 W. Lincoln Ave.

ATTENTION: Brad Card

PROJECT NAME: 13109

PROJECT CONTACT: Brad Card

TELEPHONE: 509 575 6990 FAX: 575 6993

Sampled By: Brad Card

LAB ID	SAMPLE ID / LOCATION	DATE	TIME
SF1			
SF2			
SF3			

A. A standard turnaround time is assumed unless otherwise marked. B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS:

- USE ONE LINE PER SAMPLE
- BE SPECIFIC IN TEST REQUESTS
- CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE

RELINQUISHED BY (SIGN AND PRINT): Brad Card

RECEIVED BY (SIGN AND PRINT): Valley Lab

DATE: 11/5/13 TIME: 11:40

\* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL

DATE: 11/5/13 TIME: 11:39

STANDARD 10 BUSINESS DAYS

☒ 24-48 Hrs. 100% RUSH

☐ 3-DAY RUSH - 80%

☐ 1 week RUSH - 50%

**VALLEY Environmental Laboratory**  
**201 East D St.**  
**Yakima, WA 98901**  
**(509) 575 - 3999 Fax: (509) 575 - 3068**

Washington State DOE Accredited Lab #C345		Date Reported: 11/25/13 Date Collected: 11/05/13 Time Collected: 8:00 AM Sampled By: Brad Card			
Sampled At: See Below					
PLSA Engineering Attn: Scott Garland 1120 West Lincoln Avenue Yakima, WA 98902		13109			
Volatile Organic Chemicals		Method: EPA 8260B		Matrix: Water	
VEL Sample #	03604	3605	3606		
Sample ID	SF1	SF2	SF3		
Units	ug/L	ug/L	ug/L	Limits	
Check Standards - Ave.Recovery:					
1,2-Dichlorobenzene-d4	101.6%	101.6%	102.8%	(70-130)	
4-Bromofluorobenzene	100.0%	100.8%	100.8%	(70-130)	
Toluene-d8	101.2%	100.4%	100.4%	(70-130)	
Dichlorodifluoromethane	ND	ND	ND	0.50	
Chloromethane	ND	ND	ND	0.50	
Vinyl chloride	ND	ND	ND	0.50	
Bromomethane	ND	ND	ND	0.50	
Chloroethane	ND	ND	ND	0.50	
Acetone	ND	ND	ND	5.00	
Acrolein	ND	ND	ND	0.50	
1,1-Dichloroethylene	ND	ND	ND	0.50	
Methylene chloride	ND	ND	ND	5.00	
Acrylonitrile	ND	ND	ND	0.50	
trans-1,2-Dichloroethylene	ND	ND	ND	0.50	
1,1-Dichloroethane	ND	ND	ND	0.50	
Methyl ethyl ketone (MEK)	ND	ND	ND	5.00	
cis-1,2-Dichloroethylene	ND	ND	ND	0.50	
2,2-Dichloropropane	ND	ND	ND	0.50	
Chloroform	ND	ND	ND	0.50	
Bromochloromethane	ND	ND	ND	0.50	
1,1,1-Trichloroethane	ND	ND	ND	0.50	
1,2-Dichloroethane	ND	ND	ND	0.50	
1,1-Dichloropropene	ND	ND	ND	0.50	
Carbon tetrachloride	ND	ND	ND	0.50	
Benzene	ND	ND	ND	0.50	
Trichloroethylene	ND	ND	ND	0.50	
Date Analyzed:	11/13/2013	11/13/2013	11/13/2013		
Analyst:	AAL	AAL	AAL		
ND = None Detected <span style="float: right;">Page 1 of 3</span>					

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		<b>Volatile Organic Compounds (Continued)</b>			
VEL Sample #		<b>03604</b>	<b>3605</b>	<b>3606</b>	
Sample ID		<b>SF1</b>	<b>SF2</b>	<b>SF3</b>	
Units		<b>ug/L</b>	<b>ug/L</b>	<b>ug/L</b>	<b>Limits</b>
1,2-Dichloropropane		ND	ND	ND	0.50
Dibromomethane		ND	ND	ND	0.50
Bromodichloromethane		ND	ND	ND	0.50
cis-1,3-Dichloropropene		ND	ND	ND	0.50
Toluene		ND	ND	ND	0.50
trans-1,3-Dichloropropene		ND	ND	ND	0.50
1,1,2-Trichloroethane		ND	ND	ND	0.50
1,3-Dichloropropane		ND	ND	ND	0.50
Dibromochloromethane		ND	ND	ND	0.50
Tetrachloroethylene		ND	ND	ND	0.50
1,2-Dibromoethane		ND	ND	ND	0.50
Chlorobenzene		ND	ND	ND	0.50
1,1,1,2-Tetrachloroethane		ND	ND	ND	0.50
Ethylbenzene		ND	ND	ND	0.50
m,p-Xylene		ND	ND	ND	0.50
Styrene		ND	ND	ND	0.50
o-Xylene		ND	ND	ND	0.50
Bromoform		ND	ND	ND	0.50
1,1,2,2-Tetrachloroethane		ND	ND	ND	0.50
1,2,3-Trichloropropane		ND	ND	ND	0.50
Bromobenzene		ND	ND	ND	0.50
n-Propylbenzene		ND	ND	ND	0.50
2-Chlorotoluene		ND	ND	ND	0.50
4-Chlorotoluene		ND	ND	ND	0.50
1,3,5-Trimethylbenzene		ND	ND	ND	0.50
tert-Butylbenzene		ND	ND	ND	0.50
1,2,4-Trimethylbenzene		ND	ND	ND	0.50
sec-Butylbenzene		ND	ND	ND	0.50
1,3-Dichlorobenzene		ND	ND	ND	0.50
1,4-Dichlorobenzene		ND	ND	ND	0.50
4-Isopropyltoluene		ND	ND	ND	0.50
1,2-Dichlorobenzene		ND	ND	ND	0.50
n-Butylbenzene		ND	ND	ND	0.50
1,2-Dibromo-3-chloropropane		ND	ND	ND	0.50
1,2,4-Trichlorobenzene		ND	ND	ND	0.50
Naphthalene		ND	ND	ND	0.50
<b>Date Analyzed:</b>		11/13/2013	11/13/2013	11/13/2013	
<b>Analyst:</b>		AAL	AAL	AAL	
Page 2 of 3					

**(509) 575 - 3999 Fax: (509) 575 - 3068**

[illegible]


[illegible]



**VALLEY Environmental Laboratory**  
**Washington State Certified Lab #153 - DOE Accredited Lab C345**  
**Polynuclear Aromatic Hydrocarbons**

<b>Lab/Sample No: Below</b>		<b>Date Collected: 11/05/13</b>			
<b>Date Received: 11/05/13</b>		<b>Date Reported: 11/25/13</b>		<b>Supervisor: BKO</b>	
		<b>Sampled By: Brad Card</b>			
<b>Sample Location: See Below</b>				<b>Invoice#: 26197</b>	
<b>Send Report To:</b>			<b>Sample Information</b>		
PLSA Engineering Attn: Scott Garland 1120 West Lincoln Avenue Yakima, WA 98902			Matrix: Water 13109		
<b>Polynuclear Aromatic Hydrocarbons</b>					
<b>VEL Sample Number:</b>		15303604	15303605	15303606	
<b>Sample ID/Location:</b>		SF1	SF2	SF3	
<b>Analyte</b>	<b>Units</b>	<b>Results</b>	<b>Results</b>	<b>Results</b>	<b>MRL:</b>
Acenaphthene	ug/L	ND	ND	ND	0.03
Acenaphthylene	ug/L	ND	ND	ND	0.03
Anthracene	ug/L	ND	ND	ND	0.03
Benzo(a)anthracene	ug/L	ND	ND	ND	0.03
Benzo(a)pyrene	ug/L	ND	ND	ND	0.03
Benzo(b)fluoranthene	ug/L	ND	ND	ND	0.03
Benzo(ghi)perylene	ug/L	ND	ND	ND	0.03
Benzo(k)fluoranthene	ug/L	ND	ND	ND	0.03
Chrysene	ug/L	ND	ND	ND	0.03
Dibenzo(ah)anthracene	ug/L	ND	ND	ND	0.03
Fluoranthene	ug/L	ND	ND	ND	0.03
Fluorene	ug/L	ND	ND	ND	0.03
Indeno(1,2,3-cd)pyrene	ug/L	ND	ND	ND	0.03
Naphthalene	ug/L	ND	ND	ND	0.03
Phenanthrene	ug/L	ND	ND	ND	0.03
Pyrene	ug/L	ND	ND	ND	0.03
1-MethylNaphthalene	ug/L	ND	ND	ND	0.03
2-MethylNaphthalene	ug/L	ND	ND	ND	0.03
<b>Surrogate Standard:</b>		<b>Control Limits</b>			
Terphenyl-d14	%	79.40	91.70	95.90	(10 - 125)
		EPA 8270D 11/19/13 AAL			

**MRL (Method Reporting Level):** Indicates the minimum reporting level required and obtained by the laboratory (always >MDL).  
**Trigger:** DOH Drinking Water response level.  
**MCL (maximum contaminant level):** Highest level recommended by the federal government for public water systems.  
**ND (Not Detected):** Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL.

**Approved By:** 



# VALLEY Environmental Laboratory

## Washington State Certified Lab #153 - DOE Accredited Lab C345

### IOC PP Metals

<b>Lab/Sample No: Below</b>	<b>Date Collected: 11/05/13</b>		
<b>Date Received: 11/05/13</b>	<b>Date Reported: 11/25/13</b>	<b>Supervisor: BKO</b>	
		<b>Sampled By: Brad Card</b>	
<b>Sample Location: See Below</b>		<b>Invoice#: 26197</b>	
<b>Send Report To:</b>		<b>Sample Information</b>	
PLSA Engineering		<b>Matrix: Water</b> 13109	
Attn: Scott Garland			
1120 West Lincoln Avenue			
Yakima, WA 98902			

IOC PP Metals								
VEL Sample Number:		15303604	15303605	15303606				
Sample ID/Location:		SF1	SF2	SF3				
Analyte	Units	Results	Results	Results	MRL		Date	Analyst
							Method	Analyzed
Arsenic	mg/L	0.0028	0.0026	0.0025	0.001		EPA 200.9	11/05/13 BKO
Barium	mg/L	ND	ND	ND	0.10		EPA 200.8	11/20/13 BKO
Cadmium	mg/L	0.0015	0.0014	0.0015	0.001		EPA 200.8	11/12/13 BKO
Chromium	mg/L	ND	ND	ND	0.01		EPA 200.8	11/19/13 BKO
Mercury	mg/L	ND	ND	ND	0.0002		EPA 245.1	11/25/13 BKO
Selenium	mg/L	ND	ND	ND	0.002		EPA 200.9	11/19/13 BKO
Beryllium	mg/L	ND	ND	ND	0.0005		EPA 200.8	11/18/13 BKO
Nickel	mg/L	ND	ND	ND	0.01		EPA 200.8	11/19/13 BKO
Antimony	mg/L	0.0039	0.0043	0.0041	0.003		EPA 200.9	11/16/13 BKO
Thallium	mg/L	0.0014	ND	ND	0.002		EPA 200.9	11/07/13 BKO
Silver	mg/L	ND	ND	ND	0.01		EPA 200.8	11/12/13 BKO
Zinc	mg/L	0.0322	0.0270	0.0211	0.02		EPA 200.8	11/07/13 BKO
Lead	mg/L	0.0079	0.0034	0.0011	0.001		EPA 200.9	11/13/13 BKO
Copper	mg/L	ND	ND	ND	0.020		EPA 200.7	11/11/13 BKO

**MRL (Method Reporting Level):** Indicates the minimum reporting level required and obtained by the laboratory (always >MDL).

**Trigger:** DOH Drinking Water response level.

**MCL (maximum contaminant level):** Highest level recommended by the federal government for public water systems.

**ND (Not Detected):** Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL.

Approved By: \_\_\_\_\_

## **APPENDIX II**

### **MARCH 2014 ANALYTICAL RESULTS**

201 East D Street  
Yakima, WA 98901  
(509) 575-3999  
Fax: (509) 575-3068

THIS INFORMATION WILL BE FOR REPORTING ONLY (SEE BELOW)

CLIENT: PL 5A Engineering + Surveying

ADDRESS: 1120 W. Lincoln Ave

ATTENTION: Yekim, Val 98902

PROJECT NAME: Broad Canal

PROJECT CONTACT: Broad Canal

TELEPHONE: 509-628-6880 FAX: 509-6880

Sampled By: Broad Canal

TESTS TO PERFORM		OBSERVATIONS, COMMENTS, SPECIAL INSTRUCTIONS
MATRIX: WATER, SOIL OR SPECIFY	NTPI-NCID	
NO. OF CONTAINERS	25	
	WATER 250	
	WATER 250	

LAB. SA#	SAMPLE ID / LOCATION	DATE	TIME	MATERIAL	Y	Q	P	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW
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A. A standard turnaround time is assumed unless otherwise marked. B. The laboratory may not be responsible for missed holding time for samples received with less than 50% of the analytical hold time remaining. Please contact the laboratory for further information.

INSTRUCTIONS:		RELINQUISHED BY (SIGN AND PRINT)		RECEIVED BY (SIGN AND PRINT)		DATE		TOTAL NO. OF CONTAINERS	
1. USE ONE LINE PER SAMPLE. 2. BE SPECIFIC IN TEST REQUESTS. 3. CHECK OFF TESTS TO BE PERFORMED FOR EACH SAMPLE		NAME <i>P.L.S.A. Engineering &amp; Surveying</i>		ADDRESS <i>1000 E. Main St.</i> CITY/STATE/ZIP <i>Albuquerque, NM 87102</i>		* RUSH TURNAROUND IS SUBJECT TO PRIOR LABORATORY APPROVAL		<input checked="" type="checkbox"/> Std. 10-14 Business Days <input type="checkbox"/> 24-48 Hrs. 100% Rush <input type="checkbox"/> 3-Day Rush - 80% <input type="checkbox"/> 1 week Rush - 50%	
		DATE/TIME <i>3/4/14</i> <i>1430</i>		<i>[Signature]</i>		DATE/TIME <i>3/4/14</i> <i>1424</i>			



**Washington State Certified Lab #153 - DOE Accredited Lab C345**

Date Collected: 03/04/14		
Lab/Sample No: 153-30403		County: YAKIMA
Sample Location: SF21		
		Date Received: 03/04/14
		Date Reported: 03/13/14
		Sample Collected By: Brad Card
Send Report To:		SAMPLE COMMENTS      Matrix: Water
PLSA Engineering Attn: Brad Card 1120 West Lincoln Avenue Yakima, WA 98902		Project 13109

[illegible]

Approved By: 



# VALLEY Environmental Laboratory

Washington State Certified Lab #153 - DOE Accredited Lab C345

IOC PP Metals

Date Collected: 03/04/14		
Lab/Sample No: 153-30403		County: YAKIMA
Sample Location: SF21		
		Date Received: 03/04/14
		Date Reported: 03/20/14
		Sample Collected By: Brad Card
Send Report To:		SAMPLE COMMENTS Matrix: WW
PLSA Engineering Attn: Brad Card 1120 West Lincoln Avenue Yakima, WA 98902		Project 13109

## IOC PP Metals

DOH#	Analytes	Results	Units	MRL	Trigger	MCL	Method	Analyzed	Analyst
4	Arsenic	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
5	Barium	0.018	mg/L	0.001			EPA 200.8	03/12/14	AAL
6	Cadmium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
7	Chromium	0.00106	mg/L	0.001			EPA 200.8	03/12/14	AAL
11	Mercury	ND	mg/L	0.01			EPA 245.7	03/14/14	AAL
12	Selenium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
110	Beryllium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
111	Nickel	0.00177	mg/L	0.001			EPA 200.8	03/12/14	AAL
112	Antimony	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
113	Thallium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
13	Silver	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
24	Zinc	0.00396	mg/L	0.001			EPA 200.8	03/12/14	AAL
9	Lead	0.00141	mg/L	0.001			EPA 200.8	03/12/14	AAL
23	Copper	0.00239	mg/L	0.001			EPA 200.8	03/12/14	AAL

MRL (Method Reporting Level): Indicates the minimum reporting level required and obtained by the laboratory (MDL<MRL<SRL).

Trigger: DOH Drinking Water response level. Public Systems in excess of this level must take additional samples. Recommended range on packages.

MCL (maximum contaminant level): Highest level recommended by the federal government for public water systems.

ND (Not Detected): Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL or SRL.

Approved By: \_\_\_\_\_

**Washington State Certified Lab #153 - DOE Accredited Lab C345**  
**NWTPH-HCID**

Date Collected: 03/04/14		
Lab/Sample No: 153-30404		County: YAKIMA
Sample Location: SF22		
		Date Received: 03/04/14
		Date Reported: 03/17/14
		Sample Collected By: Brad Card
Send Report To:		SAMPLE COMMENTS      Matrix: Water
PLSA Engineering Attn: Brad Card 1120 West Lincoln Avenue Yakima, WA 98902		Project 13109

## NWTPH-HCID

[illegible]

**MRL (Method Reporting Level):** Indicates the minimum reporting level required and obtained by the laboratory (MDL<MRL<SRL).

Trigger: DOH Drinking Water response level. Public Systems in excess of this level must take additional samples. Recommended range on packages.

**MCL (maximum contaminant level):** Highest level recommended by the federal government for public water systems.

**ND (Not Detected):** Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL or SRL.

Approved By:

**Washington State Certified Lab #153 - DOE Accredited Lab C345**

Date Collected: 03/04/14		
Lab/Sample No: 153-30404		County: YAKIMA
Sample Location: SF22		
		Date Received: 03/04/14
		Date Reported: 03/20/14
		Sample Collected By: Brad Card
Send Report To:		SAMPLE COMMENTS      Matrix: Water
PLSA Engineering Attn: Scott Garland 1120 West Lincoln Avenue Yakima, WA 98902		Project 13109

[illegible]

Approved By:



# VALLEY Environmental Laboratory

**Washington State Certified Lab #153 - DOE Accredited Lab C345**

## IOC PP Metals

Date Collected: 03/04/14

Lab/Sample No: 153-30404

County: YAKIMA

**Sample Location: SF22**

Date Received: 03/04/14

Date Reported: 03/20/14

**Sample Collected By: Brad Card**

**Send Report To:**

### SAMPLE COMMENTS

**Matrix: WW**

## PLSA Engineering

**Attn: Scott Garland**

**1120 West Lincoln Avenue**

Yakima, WA 98902

Project 13109

## IOC PP Metals

[illegible]

**MRL (Method Reporting Level):** Indicates the minimum reporting level required and obtained by the laboratory (MDL<MRL<SRL).

**Trigger:** DOH Drinking Water response level. Public Systems in excess of this level must take additional samples. Recommended range on packages.

**MCL (maximum contaminant level):** Highest level recommended by the federal government for public water systems.

ND (Not Detected): Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL or SRL.

Approved By:

**Washington State Certified Lab #153 - DOE Accredited Lab C345**  
**NWTPH-HCID**

NWTPH-HCID
------------

Approved By:

**Washington State Certified Lab #153 - DOE Accredited Lab C345**

Date Collected: 03/04/14		
Lab/Sample No: 153-30405		County: YAKIMA
Sample Location: SF23		
		Date Received: 03/04/14
		Date Reported: 03/20/14
		Sample Collected By: Brad Card
Send Report To:		SAMPLE COMMENTS      Matrix: Water
PLSA Engineering Attn: Scott Garland 1120 West Lincoln Avenue Yakima, WA 98902		Project 13109

[illegible]

Approved By:

# VALLEY Environmental Laboratory

**Washington State Certified Lab #153 - DOE Accredited Lab C345**

## IOC PP Metals

Date Collected: 03/04/14			
Lab/Sample No: 153-30405		County: YAKIMA	
Sample Location: SF23			
		Date Received: 03/04/14	
		Date Reported: 03/20/14	
		Sample Collected By: Brad Card	
Send Report To:		SAMPLE COMMENTS	Matrix: WW
PLSA Engineering Attn: Brad Card 1120 West Lincoln Avenue Yakima, WA 98902		Project 13109	

## IOC PP Metals

DOH# Analytes		Results	Units	MRL	Trigger	MCL	Method	Analyzed	Analyst
4	Arsenic	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
5	Barium	0.00882	mg/L	0.001			EPA 200.8	03/12/14	AAL
6	Cadmium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
7	Chromium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
11	Mercury	ND	mg/L	0.01			EPA 245.7	03/14/14	AAL
12	Selenium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
110	Beryllium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
111	Nickel	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
112	Antimony	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
113	Thallium	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
13	Silver	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
24	Zinc	0.00143	mg/L	0.001			EPA 200.8	03/12/14	AAL
9	Lead	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL
23	Copper	ND	mg/L	0.001			EPA 200.8	03/12/14	AAL

**MRL (Method Reporting Level):** Indicates the minimum reporting level required and obtained by the laboratory (MDL<MRL<SRL).

**Trigger:** DOH Drinking Water response level. Public Systems in excess of this level must take additional samples. Recommended range on packages.

**MCL (maximum contaminant level):** Highest level recommended by the federal government for public water systems.

ND (Not Detected): Indicates this compound was analyzed and not detected at a level greater than or equal to the MRL or SRL.

Approved By:



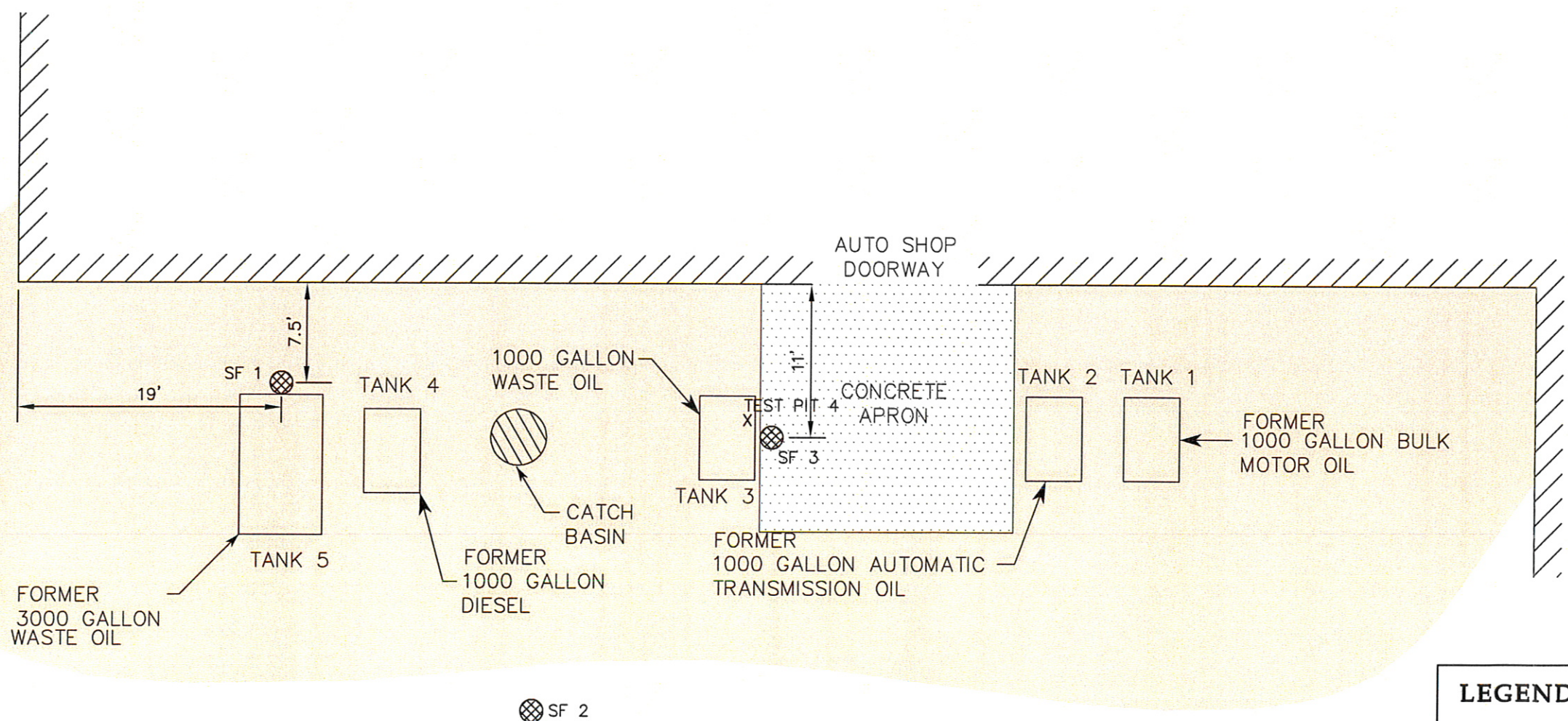


FIGURE 1

JOB NO:	13109
SCALE:	1"=10'
SHEET:	1 OF 1

SUNFAIR CHEVROLET  
SAMPLING PLAN  
YAKIMA, WASHINGTON  
— PREPARED FOR —  
BOB HALL  
1117 NORTH 27TH AVENUE YAKIMA, WASHINGTON 9745-3507

**PLSA**  
ENGINEERING-SURVEYING-PLANNING  
1120 WEST LINCOLN YAKIMA, WASHINGTON (509) 575-6990