GROUNDWATER MONITORING REPORT:
4th Quarter - August 2017

Fife RV Center
3410 Pacific Highway East
Fife, Washington 98424

AEROTECH
Environmental Consulting Inc.

August 1, 2017

Anchorage Seattle Portland

Cost-effective environmental solutions
for the western United States and Alaska

www.AerotechEnvironmental.com

AEROTECH
Environmental Consulting Inc.

13925 Interurban Avenue South, Suite 210
Seattle, Washington 98168
(360) 710-5899

512 W. International Airport Road, Suite 201
Anchorage, Alaska 99518
(907) 575-6661

August 15, 2017

Mr. Tony Carl
Fife RV Center
3410 Pacific Highway East
Fife, Washington 98424

RE: Groundwater Monitoring Report – 4th Quarter – August 2017
Fife RV Center
3410 Pacific Highway East, Fife, Washington
Fife, Washington 98424

Dear Mr. Carl,

As you are aware, Aerotech Environmental Consulting, Inc. ("Aerotech") has been retained to collect quarterly groundwater samples from six groundwater monitoring wells previously installed at Fife RV Center in Fife, Washington. Aerotech conducted the third round of groundwater monitoring and sampling activities on August 1, 2017. Enclosed, please find the associated tabulated analytical results, site drawings, laboratory analytical report, and standard operating procedure document.

Petroleum Hydrocarbon and Lead concentrations were below the MTCA Method A Cleanup Levels in samples collected from groundwater monitoring wells MW1, MW2, MW3, MW4, MW5, and MW6 with the exception of Total Petroleum Hydrocarbons as Gasoline ("TPHg") and Benzene, which were present at concentrations above the MTCA Method A Cleanup Levels in groundwater monitoring wells MW2 and MW4.

Please feel free to contact the Aerotech Geologist, Mr. Justin Foslien, at (206) 257-4211, or the Aerotech Field Sampling Coordinator, Mr. Nicholas Gerkin at (206) 482-2287 if you have any questions regarding work completed at this Site.

Sincerely,

JUSTIN FRANCIS FOSLIEN

Justin F. Foslien
State of Washington
Licensed Geologist No. 2540

Nick Gerkin
Environmental Professional
Washington State UST Site Assessor
ICC UST Decommissioning Supervisor

APPENDIX

- Analytical Results Table & Figures
- Project Contract Documents
- Laboratory Analytical Results
- Laboratory Chain of Custody
- Low-Flow Groundwater Sampling Standard Operating Procedure
- Field Documentation

ANALYTICAL RESULTS TABLE
&
FIGURES

GROUNDWATER ANALYTICAL RESULTS

Fife RV Center
3410 Pacific Highway East
Fife, Washington

MW1

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.4	11/18/16	1.37	8.37	7.00	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	02/20/17	1.19	8.37	7.18	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	05/23/17	1.72	8.37	6.65	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	08/01/17	2.92	8.37	5.45	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW2

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.2	11/18/16	2.53	9.40	6.87	**18,000**	<200	<500	**470**	18	210	200	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	02/20/17	2.25	9.40	7.15	**29,000**	<200	<500	**720**	26	490	700	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	05/23/17	3.02	9.40	6.38	**10,000**	<200	<500	**300**	18	93	400	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	08/01/17	4.40	9.40	5.00	**25,000**	<200	<500	**980**	62	540	**1,300**	<0.01	<1.0	<5.0	ND	4.3	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW3

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.6	11/18/16	2.19	9.43	7.24	**42,000**	<200	<500	**130**	16	**2,800**	120	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	02/20/17	2.02	9.43	7.41	**10,000**	<200	<500	**28**	<1,000	620	92	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	05/23/17	2.65	9.43	6.78	**6,700**	<200	<500	**21**	1.4	210	57	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	08/01/17	4.05	9.43	5.38	620	<200	<500	<1.0	<1.0	2.4	1.3	<0.01	<1.0	<5.0	ND	0.60	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW4

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.5	11/18/16	3.31	10.12	6.81	**1,900**	<200	<500	**140**	<1.0	13	7.70	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	02/20/17	3.08	10.12	7.04	**6,800**	<200	<500	**220**	35	340	22	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	05/23/17	3.88	10.12	6.24	**1,600**	<200	<500	**120**	6.0	12	3.8	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	08/01/17	5.61	10.12	4.51	**2,100**	<200	<500	**94**	4.4	170	1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW5

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
17.5	11/18/16	5.17	11.27	6.10	**2,100**	<200	<500	**250**	1.6	5.6	2.1	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	02/20/17	5.16	11.27	6.11	700	<200	<500	**52**	<1.0	2.2	2.4	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	05/23/17	6.34	11.27	4.93	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	08/01/17	8.31	11.27	2.96	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

GROUNDWATER ANALYTICAL RESULTS

Fife RV Center

3410 Pacific Highway East

Fife, Washington

MW6

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
17.5	11/18/16	4.72	11.40	6.68	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	02/20/17	4.69	11.40	6.71	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	05/23/17	5.85	11.40	5.55	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	<2.0	<2.0
	08/01/17	7.32	11.40	4.08	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW7

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.2	08/01/17	5.83	10.09	4.26	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW8

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.1	08/01/17	5.26	10.26	5.00	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

MW9

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.3	08/01/17	3.57	8.84	5.27	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	--	<2.0
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	15	15

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

TOC = Top of Casing MSL = Mean Sea Level

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

TPHg - Total Petroleum Hydrocarbons - Gasoline by Method NWTPH-Gx

TPHd - Total Petroleum Hydrocarbons - Diesel by Method NWTPH-Dx TPHmo - Total Petroleum Hydrocarbons - Motor Oil by Method NWTPH-Dx extended

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

MTBE = Methyl-tert-butyl-ether EDC = 1,2-Dichloroethane EDB = 1,2-Dibromoethane HVOCs = Halogenated Volatile Organic Compounds; by EPA Method 8260B

PAHs (including Naphthalene) by EPA Method 8270

Total and Dissolved Lead by EPA Method 7010

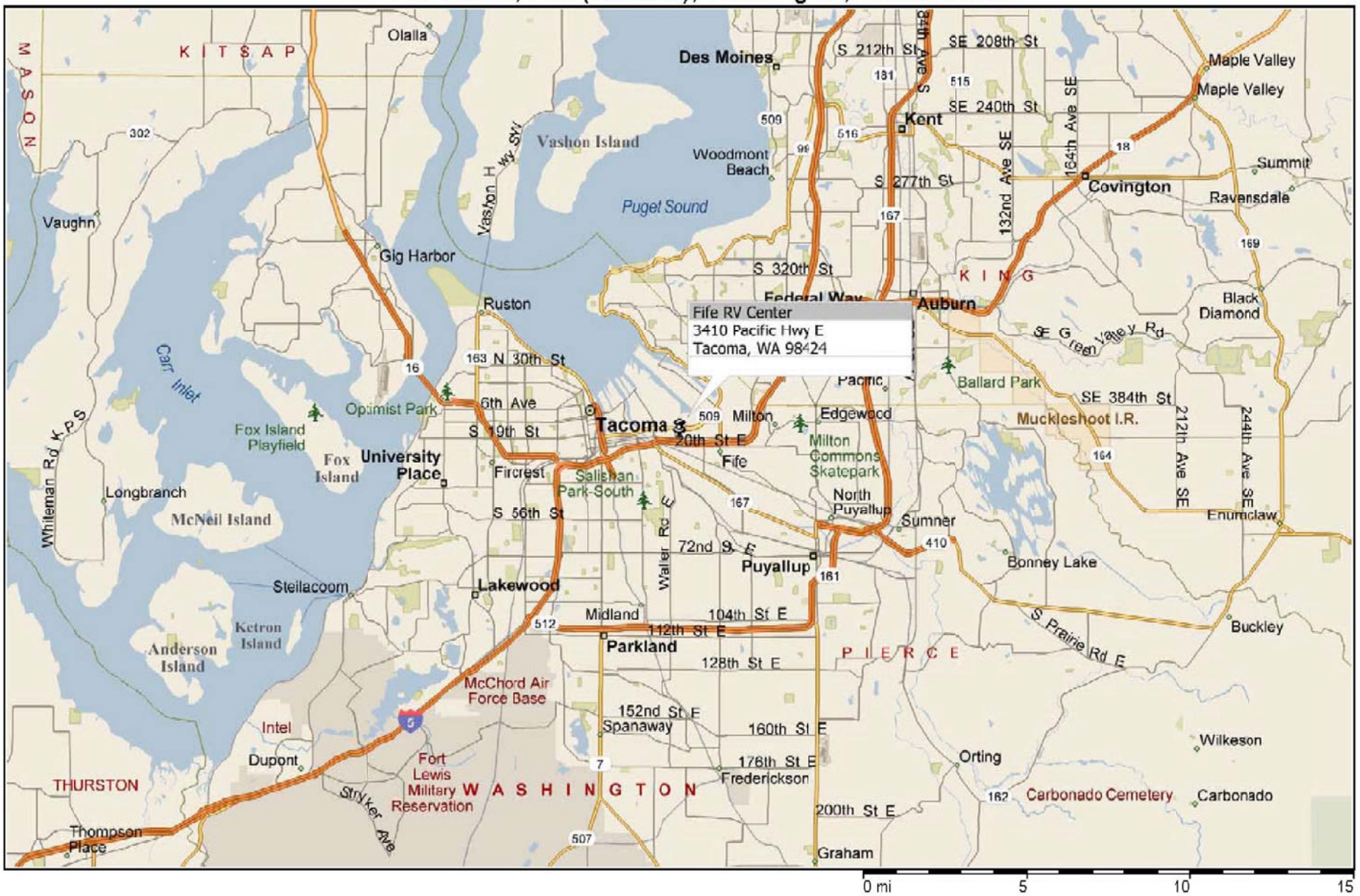
* = Method B Cleanup Level (Method A Cleanup Level does not apply to this particular constituent)

ND = Not Detected above Laboratory Minimum Reporting Limits or applicable cleanup levels (see laboratory report for further detail)

Bolded numbers and red-shaded cells denote concentrations above the MTCA Cleanup Levels for groundwater

N

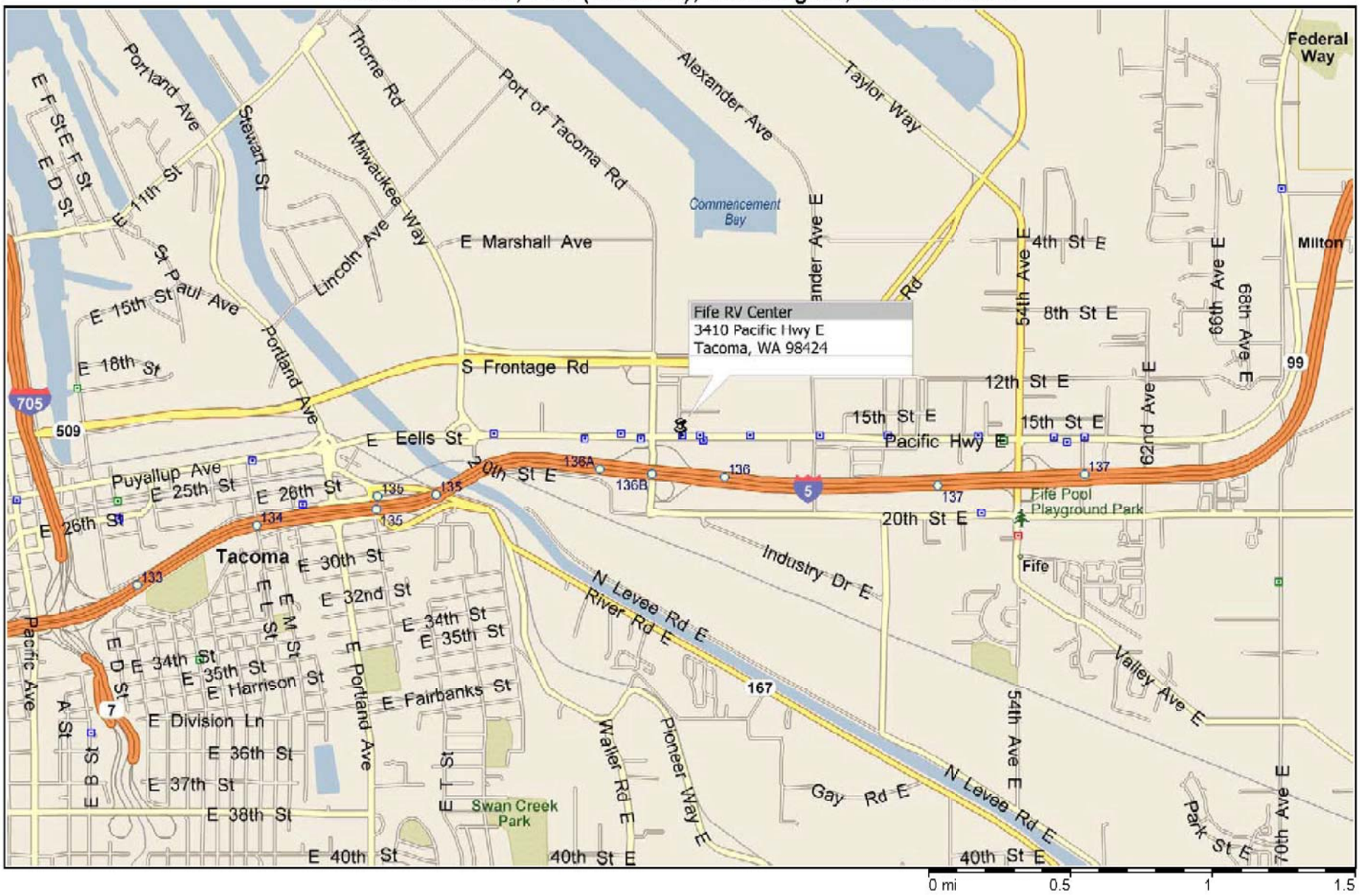
Fife RV Center, Fife (Tacoma), Washington, United States



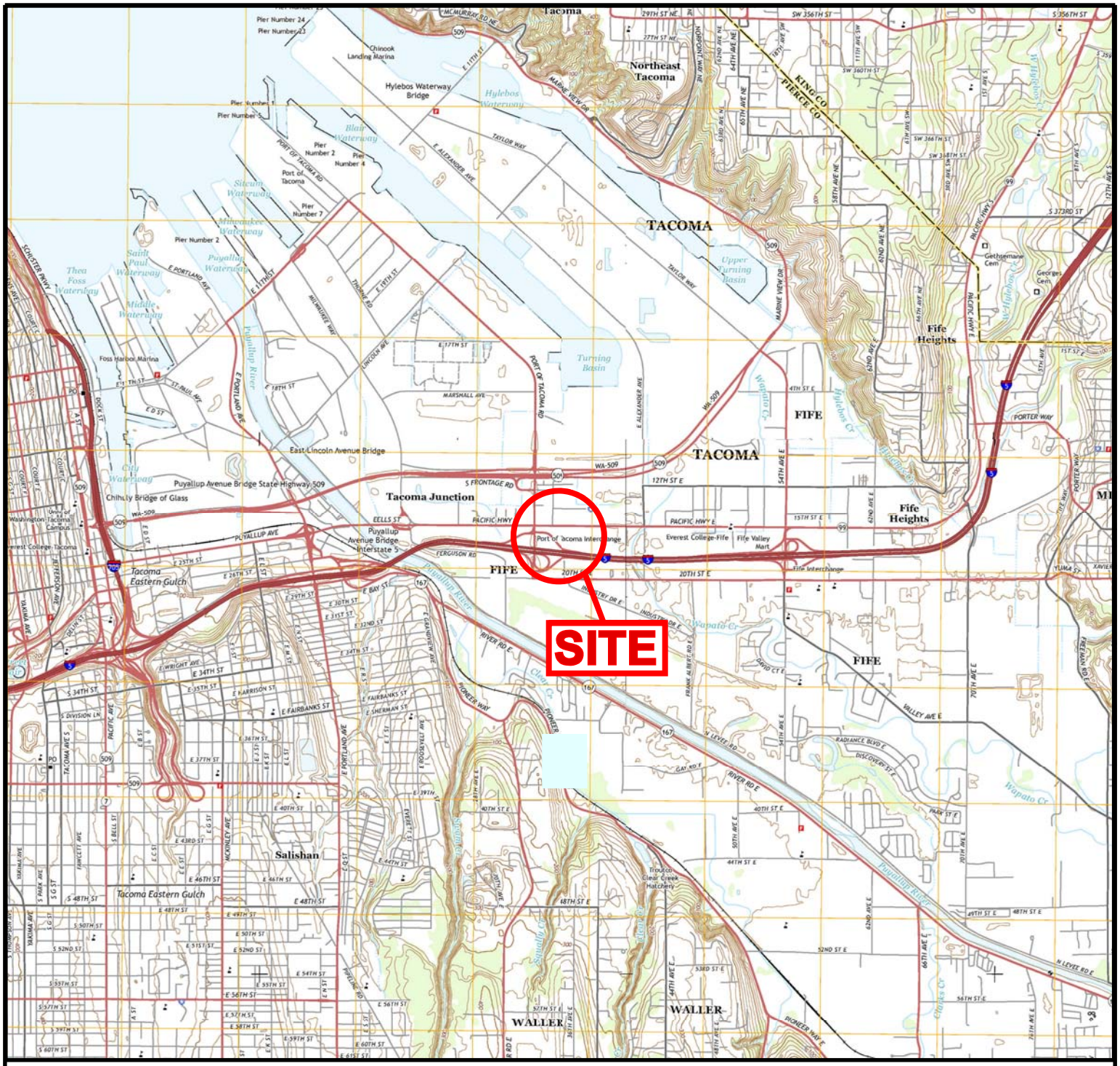
AEROTECH ENVIRONMENTAL CONSULTING	**REGIONAL MAP**	**Fife RV Center** **3410 Pacific Highway East** **Fife, Washington**	**Date:** 12/08/16 **By:** Nick Gerkin **Figure:** 1

N

Fife RV Center, Fife (Tacoma), Washington, United States



AEROTECH ENVIRONMENTAL CONSULTING	**NEIGHBORHOOD STREET MAP**	**Fife RV Center** **3410 Pacific Highway East** **Fife, Washington**		**Date:** 12/08/16 **By:** Nick Gerkin **Figure:** 2



UTM GRID AND 2014 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

AEROTECH ENVIRONMENTAL CONSULTING

USGS TOPOGRAPHIC MAP

Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 10/30/16
By: Nick Gerkin
Figure: 3

EXPLANATION

Extents of Site Remedial Excavation Figures

Property Boundary

AEROTECH ENVIRONMENTAL CONSULTING

SITE VICINITY MAP

Fife RV Center
3410 Pacific Highway East
Fife, Washington

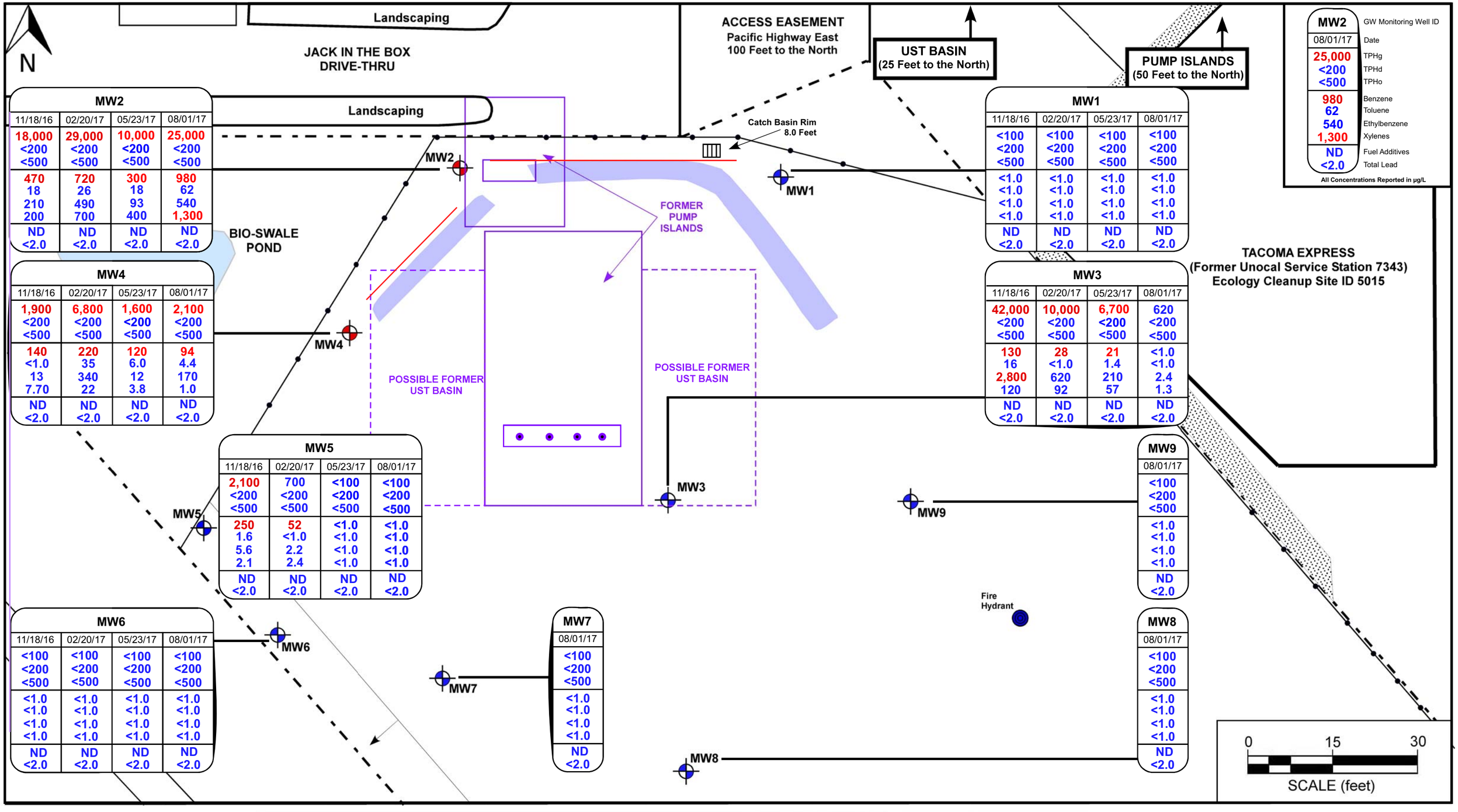
0 150 300

SCALE (feet)

Date: 10/30/16

By: Nick Gerkin

Figure: 4



MW2			
11/18/16	02/20/17	05/23/17	08/01/17
18,000	29,000	10,000	25,000
<200	<200	<200	<200
<500	<500	<500	<500
470	720	300	980
18	26	18	62
210	490	93	540
200	700	400	1,300
ND	ND	ND	ND
<2.0	<2.0	<2.0	<2.0

MW1			
11/18/16	02/20/17	05/23/17	08/01/17
<100	<100	<100	<100
<200	<200	<200	<200
<500	<500	<500	<500
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
ND	ND	ND	ND
<2.0	<2.0	<2.0	<2.0

MW4			
11/18/16	02/20/17	05/23/17	08/01/17
1,900	6,800	1,600	2,100
<200	<200	<200	<200
<500	<500	<500	<500
140	220	120	94
<1.0	35	6.0	4.4
13	340	12	170
7.70	22	3.8	1.0
ND	ND	ND	ND
<2.0	<2.0	<2.0	<2.0

MW3			
11/18/16	02/20/17	05/23/17	08/01/17
42,000	10,000	6,700	620
<200	<200	<200	<200
<500	<500	<500	<500
130	28	21	<1.0
16	<1.0	1.4	<1.0
2,800	620	210	2.4
120	92	57	1.3
ND	ND	ND	ND
<2.0	<2.0	<2.0	<2.0

MW5			
11/18/16	02/20/17	05/23/17	08/01/17
2,100	700	<100	<100
<200	<200	<200	<200
<500	<500	<500	<500
250	52	<1.0	<1.0
1.6	<1.0	<1.0	<1.0
5.6	2.2	<1.0	<1.0
2.1	2.4	<1.0	<1.0
ND	ND	ND	ND
<2.0	<2.0	<2.0	<2.0

MW9
08/01/17
<100
<200
<500
<1.0
<1.0
<1.0
<1.0
ND
<2.0

MW6			
11/18/16	02/20/17	05/23/17	08/01/17
<100	<100	<100	<100
<200	<200	<200	<200
<500	<500	<500	<500
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
ND	ND	ND	ND
<2.0	<2.0	<2.0	<2.0

MW7
08/01/17
<100
<200
<500
<1.0
<1.0
<1.0
<1.0
ND
<2.0

MW8
08/01/17
<100
<200
<500
<1.0
<1.0
<1.0
<1.0
ND
<2.0

MW2	GW Monitoring Well ID
08/01/17	Date
25,000	TPHg
<200	TPHd
<500	TPHo
980	Benzene
62	Toluene
540	Ethylbenzene
1,300	Xylenes
ND	Fuel Additives
<2.0	Total Lead

All Concentrations Reported in µg/L

Blue numbers and symbols indicate concentrations below the MTCA Method A Cleanup Levels

Red numbers and symbols indicate concentrations above the MTCA Method A Cleanup Levels

AEROTECH
ENVIRONMENTAL CONSULTING

EXPLANATION

MW9 — Groundwater Monitoring Well

Property Boundary

Fencing

Cool Guard HRL36 Liner Installed to 10-Foot Depth

All analytes are not represented on this map. Refer to Table 1 and the Laboratory Analytical Report for further detail regarding HVOCs and PAHs.

GROUNDWATER ANALYTICAL RESULTS MAP - 08/01/17

Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 08/23/17

By: Nick Gerkin

Figure: 5

N

Landscaping

JACK IN THE BOX
DRIVE-THRU

Landscaping

ACCESS EASEMENT
Pacific Highway East
100 Feet to the North

UST BASIN
(25 Feet to the North)

PREDOMINANT
HISTORICAL FLOW
DIRECTION

TACOMA
EXPRESS

Catch Basin Rim
8.0 Feet[1]

Water surface presumed to be at or near groundwater table, and hydraulically connected by design to the adjoining Drainage Ditch to the south

BIO-SWALE
POND

MW1
5.45

MW2
5.00

MW3
5.38

MW4
4.51

MW5
2.96

MW6
4.08

MW7
4.26

MW8
5.00

MW9
5.27

GEO BARRIER

GEO BARRIER

5.1

4.8

4.5

4.2

3.9

3.3

5.4

Approximate
Groundwater
Flow Direction
Range[2]

2 - based upon measurements on-site and historical measurements on the adjoining property to the North

Gradient Range
0.015 - 0.028 ft/ft

Storm Sewer
5-Foot Depth

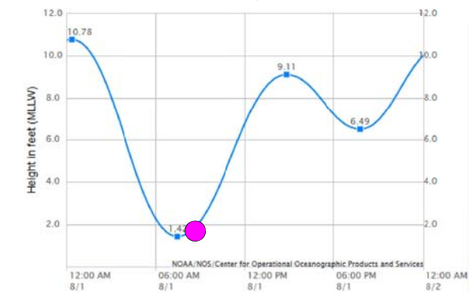
Fire
Hydrant

DRAINAGE DITCH

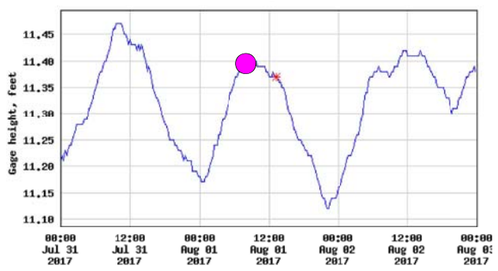
Flows to Hylebos
Creek

1 - Aside from the adjoining Bio-Swale (west) & Drainage Ditch (southwest), a topographic minimum shared by the Site & the adjoining parcel to the north, is situated at the catch basin (north side of study area)

NOAA Commencement Bay Tide Chart for 08/01/17



USGS Puyallup River Hydrograph
(Puyallup Gauging Station) 07/31 - 08/02/17
Latitude: 47.208611°N **Longitude:** 122.325833°W



Time at which water level data was obtained at the subject site

0 15 30
SCALE (feet)

AEROTECH
ENVIRONMENTAL CONSULTING

EXPLANATION

MW6
4.08
Groundwater Monitoring Well
Groundwater Elevation in Feet

Groundwater Elevation Contour Line (Isopotential Line)

Approximate Expected Location of Isopotential Line

Property Boundary

Fencing

Geo Membrane Barrier - Cool Guard HRL36 Liner Installed to 10-Foot Depth

Storm Sewer

Electrical Utility

Gas Utility

Water Utility

POTENTIOMETRIC SURFACE MAP - 08/01/17

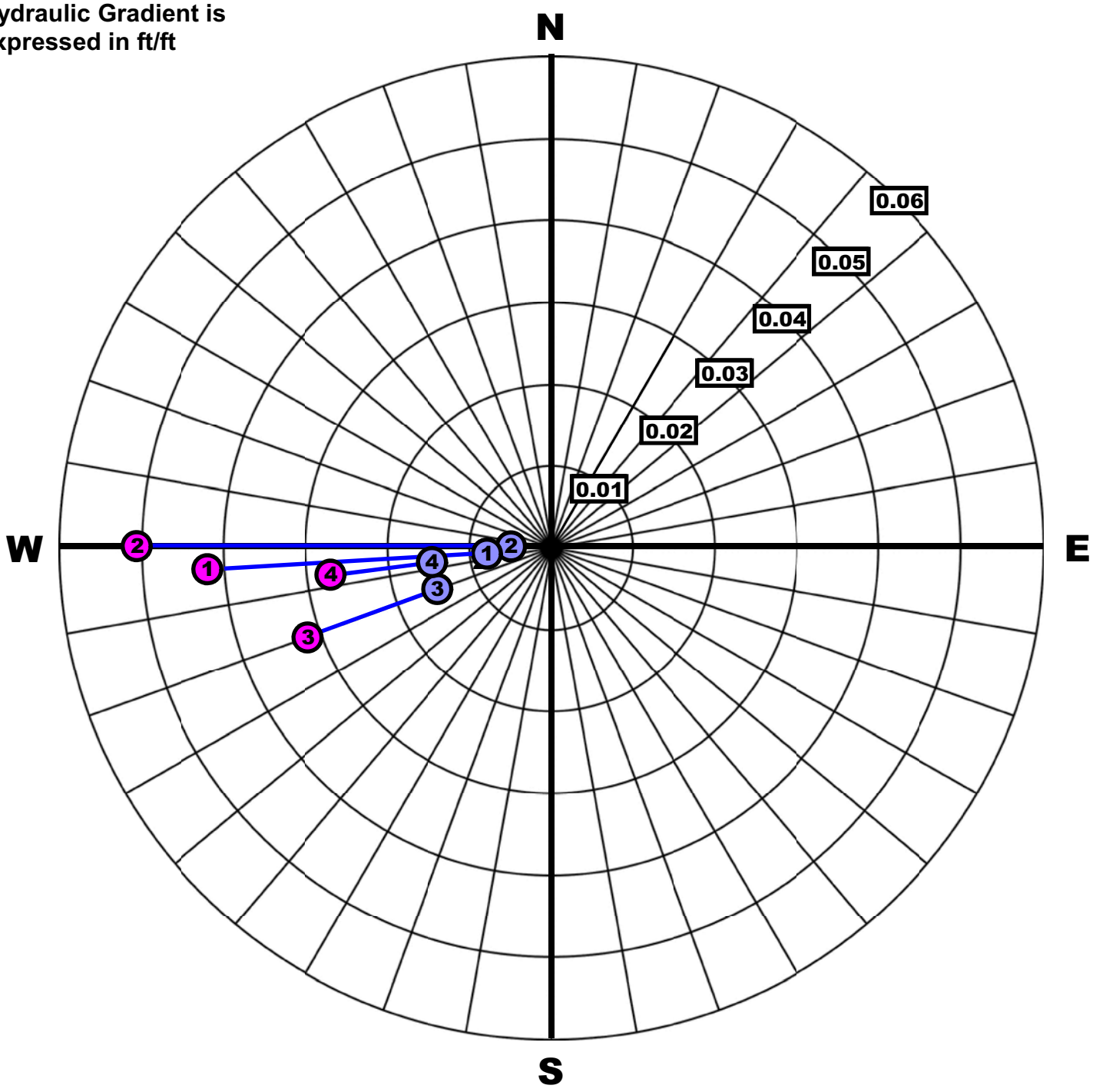
Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 06/30/17

By: Nick Gerkin

Figure: 6

Hydraulic Gradient is expressed in ft/ft



HYDRAULIC GRADIENT RANGE AND SHALLOW GROUNDWATER FLOW DIRECTION FROM MW3

1 11/18/16

2 02/20/17

3 05/23/17

4 08/01/17

2 Maximum Calculated Gradient

2 Minimum Calculated Gradient

AEROTECH ENVIRONMENTAL CONSULTING	**ROSE DIAGRAM**	**Fife RV Center** **3410 Pacific Highway East** **Fife, Washington**	**Date:** 08/22/17 **By:** Nick Gerkin **Figure:** 7

PROJECT CONTRACT DOCUMENTS

ENVIRONMENTAL CONTRACTOR'S CERTIFICATION

Fife RV Center
3410 Pacific Highway East
Fife, Washington 98424

1. Contractor's Name: Aerotech Environmental Consulting, Inc.

2. Contractor's Address: 13925 Interurban Avenue South, Ste. 210, Seattle, Washington 98168

3. Name and title of person completing this certification: Alan T. Blotch / President

4. Answer the following questions about each employee that contractor will have perform the assessment or prepare the report showing the results of the inspection:

   a. Name and Title of Employee: Alan T. Blotch – Environmental Professional

   b. Length of experience doing environmental assessments: 31 years

   c. Education degrees received: Masters of Business Administration
   Juris Doctor – Environmental Law

   d. Relevant training received: ASTM E50 Environmental Assessment Committee Meetings

5. Identify any certifications and approvals issued to contractor pursuant to an official Federal, State of local program or policy to conduct environmental assessments: Registered Environmental Assessor
   Issued by State of California

6. Describe the generally recognized standards which the contractor will use to perform the assessment. *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process* (ASTM E 1903)

7. Disclose the nature of any previous environmental inspections contractor has ever performed for the Owner of the property: Phase I Environmental Site Assessment

8. Disclose the nature of any affiliation or association contractor now has, or ever had, with the above referenced seller of the property, of the above referenced buyer of the property: N/A

9. Describe the liability insurance carried by contractor to cover claims in the event that ir fails to discover adverse environmental conditions during an environmental inspection.
   Professional Errors & Omissions Coverage $1,000,000 / claim and $1,000,000 aggregate liability

THE UNDERSIGNED HEREBY CERTIFIES, UNDER PENALTY OF THE CRIMINAL AND/OR CIVIL PENALTIES IN 18 U.S.C. § 1001 FOR FALSE STATEMENTS TO THE UNITED STATES GOVERNMENT, THAT THE ABOVE INFORMATION IS TRUE AND CORRECT.

Signature

8-15-17
Date

LABORATORY ANALYTICAL RESULTS

ADVANCED ANALYTICAL

Environmental Testing Laboratory

August 08, 2017

Nick Gerkin
Aerotech Environmental, Inc.
13925 Interurban Avenue South, Suite 210
Seattle, WA 98168

Dear Mr. Gerkin:

Please find enclosed the analytical data report for the *Fife RV Center* ***(C70802-1)*** Project.

Samples were received on *August 02, 2017.* The results of the analyses are presented in the attached tables. Applicable reporting limits, QA/QC data and data qualifiers are included. A copy of the chain-of-custody and an invoice for the work is also enclosed.

ADVANCED ANALYTICAL LABORATORY appreciates the opportunity to provide analytical services for this project. Should there be any questions regarding this report, please contact me at (425) 702-8571.

It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

V. Ivanov

Val G. Ivanov, Ph.D.
Laboratory Manager

4078 148 Ave NE■ Redmond, WA 98052
425.702-8571
E-mail: aachemlab@yahoo.com

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number:	C70802-1
Client:	Aerotech Environmental
Project Manager:	Nick Gerkin
Client Project Name:	Fife RV Center
Client Project Number:	na
Date received:	08/02/17

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

8260B, µg/L		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17
MTBE	5.0	nd		nd	nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride(*)	0.2	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd		nd	nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
Carbontetrachloride	1.0	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd	nd
Trichloroethene	1.0	nd	80%	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd
1,2-Dibromoethane (EDB)*	0.01	nd		nd	nd	nd	nd
Chlorobenzene	1.0	nd	96%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nd	nd

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

8260B, µg/L		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
*-instrument detection limits							
Surrogate recoveries							
Dibromofluoromethane		101%	97%	116%	99%	96%	107%
1,2-Dichloroethane-d4		98%	87%	108%	89%	99%	107%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

8260B, µg/L		W-MW5	W-MW6	W-MW7	W-MW8	W-MW9	MS
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17
MTBE	5.0	nd	nd	nd	nd	nd	
Chloromethane	1.0	nd	nd	nd	nd	nd	
Vinyl chloride(*)	0.2	nd	nd	nd	nd	nd	
Bromomethane	1.0	nd	nd	nd	nd	nd	
Chloroethane	1.0	nd	nd	nd	nd	nd	
Trichlorofluoromethane	1.0	nd	nd	nd	nd	nd	
1,1-Dichloroethene	1.0	nd	nd	nd	nd	nd	
Methylene chloride	1.0	nd	nd	nd	nd	nd	
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd	
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd	
2,2-Dichloropropane	1.0	nd	nd	nd	nd	nd	
cis-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd	
Chloroform	1.0	nd	nd	nd	nd	nd	
1,1,1-Trichloroethane	1.0	nd	nd	nd	nd	nd	
Carbontetrachloride	1.0	nd	nd	nd	nd	nd	
1,1-Dichloropropene	1.0	nd	nd	nd	nd	nd	
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd	
Trichloroethene	1.0	nd	nd	nd	nd	nd	92%
1,2-Dichloropropane	1.0	nd	nd	nd	nd	nd	
Dibromomethane	1.0	nd	nd	nd	nd	nd	
Bromodichloromethane	1.0	nd	nd	nd	nd	nd	
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	
trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd	
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd	nd	
Tetrachloroethene	1.0	nd	nd	nd	nd	nd	
1,3-Dichloropropane	1.0	nd	nd	nd	nd	nd	
Dibromochloromethane	1.0	nd	nd	nd	nd	nd	
1,2-Dibromoethane (EDB)*	0.01	nd	nd	nd	nd	nd	
Chlorobenzene	1.0	nd	nd	nd	nd	nd	96%
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	
Bromoform	1.0	nd	nd	nd	nd	nd	
1,2,3-Trichloropropane	1.0	nd	nd	nd	nd	nd	
Bromobenzene	1.0	nd	nd	nd	nd	nd	
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd	
2-Chlorotoluene	1.0	nd	nd	nd	nd	nd	
4-Chlorotoluene	1.0	nd	nd	nd	nd	nd	
1,3,5-Trimethylbenzene	1.0	nd	nd	nd	nd	nd	
1,2,4-Trimethylbenzene	1.0	nd	nd	nd	nd	nd	
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd	nd	
1,2-Dibromo-3-Chloropropane	1.0	nd	nd	nd	nd	nd	

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

8260B, µg/L		W-MW5	W-MW6	W-MW7	W-MW8	W-MW9	MS
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17	08/04/17
1,2,4-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd	
*-instrument detection limits							
Surrogate recoveries							
Dibromofluoromethane		98%	109%	100%	102%	105%	96%
1,2-Dichloroethane-d4		94%	104%	101%	103%	103%	90%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number:	C70802-1
Client:	Aerotech Environmental
Project Manager:	Nick Gerkin
Client Project Name:	Fife RV Center
Client Project Number:	na
Date received:	08/02/17

Analytical Results

8260B, µg/L		MSD	RPD
Matrix	Water	Water	Water
Date analyzed	Reporting Limits	08/04/17	08/04/17
MTBE	5.0		
Chloromethane	1.0		
Vinyl chloride(*)	0.2		
Bromomethane	1.0		
Chloroethane	1.0		
Trichlorofluoromethane	1.0		
1,1-Dichloroethene	1.0		
Methylene chloride	1.0		
trans-1,2-Dichloroethene	1.0		
1,1-Dichloroethane	1.0		
2,2-Dichloropropane	1.0		
cis-1,2-Dichloroethene	1.0		
Chloroform	1.0		
1,1,1-Trichloroethane	1.0		
Carbontetrachloride	1.0		
1,1-Dichloropropene	1.0		
1,2-Dichloroethane (EDC)	1.0		
Trichloroethene	1.0	91%	2%
1,2-Dichloropropane	1.0		
Dibromomethane	1.0		
Bromodichloromethane	1.0		
cis-1,3-Dichloropropene	1.0		
trans-1,3-Dichloropropene	1.0		
1,1,2-Trichloroethane	1.0		
Tetrachloroethene	1.0		
1,3-Dichloropropane	1.0		
Dibromochloromethane	1.0		
1,2-Dibromoethane (EDB)*	0.01		
Chlorobenzene	1.0	101%	5%
1,1,1,2-Tetrachloroethane	1.0		
Bromoform	1.0		
1,2,3-Trichloropropane	1.0		
Bromobenzene	1.0		
1,1,2,2-Tetrachloroethane	1.0		
2-Chlorotoluene	1.0		
4-Chlorotoluene	1.0		
1,3,5-Trimethylbenzene	1.0		
1,2,4-Trimethylbenzene	1.0		
1,3-Dichlorobenzene	1.0		
1,4-Dichlorobenzene	1.0		
1,2-Dichlorobenzene	1.0		
1,2-Dibromo-3-Chloropropane	1.0		

AAL Job Number:	C70802-1
Client:	Aerotech Environmental
Project Manager:	Nick Gerkin
Client Project Name:	Fife RV Center
Client Project Number:	na
Date received:	08/02/17

Analytical Results

8260B, µg/L		MSD	RPD
Matrix	Water	Water	Water
Date analyzed	Reporting Limits	08/04/17	08/04/17
1,2,4-Trichlorobenzene	1.0		
1,2,3-Trichlorobenzene	1.0		

*-instrument detection limits

Surrogate recoveries	
Dibromofluoromethane	98%
1,2-Dichloroethane-d4	87%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

NWTPH-Gx/BTEX		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17
NWTPH-Gx, ug/L							
Mineral spirits/Stoddard	100	nd		nd	nd	nd	nd
Gasoline	100	nd		nd	25,000	620	2,100
BTEX 8021B, µg/L							
Benzene	1.0	nd	96%	nd	980	nd	94
Toluene	1.0	nd	102%	nd	62	nd	4.4
Ethylbenzene	1.0	nd		nd	540	2.4	170
Xylenes	1.0	nd		nd	1,300	1.3	1.0
Surrogate recoveries:							
Trifluorotoluene		97%	113%	92%	92%	84%	106%
Bromofluorobenzene		107%	109%	108%	100%	103%	112%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

NWTPH-Gx/BTEX		W-MW5	W-MW6	W-MW7	W-MW8	W-MW9	W-MW9 Dupl	MS
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17
NWTPH-Gx, ug/L								
Mineral spirits/Stoddard	100	nd	nd	nd	nd	nd	nd	
Gasoline	100	nd	nd	nd	nd	nd	nd	
BTEX 8021B, µg/L								
Benzene	1.0	nd	nd	nd	nd	nd	nd	97%
Toluene	1.0	nd	nd	nd	nd	nd	nd	108%
Ethylbenzene	1.0	nd	nd	nd	nd	nd	nd	
Xylenes	1.0	nd	nd	nd	nd	nd	nd	
Surrogate recoveries:								
Trifluorotoluene		88%	114%	85%	91%	81%	90%	112%
Bromofluorobenzene		107%	124%	108%	106%	103%	113%	108%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

NWTPH-Gx/BTEX		MSD	RPD
Matrix	Water	Water	Water
Date analyzed	Reporting Limits	08/03/17	08/03/17
NWTPH-Gx, ug/L			
Mineral spirits/Stoddard	100		
Gasoline	100		
BTEX 8021B, µg/L			
Benzene	1.0	88%	10%
Toluene	1.0	96%	12%
Ethylbenzene	1.0		
Xylenes	1.0		
Surrogate recoveries:			
Trifluorotoluene		105%	
Bromofluorobenzene		105%	

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

NWTPH-Dx, mg/L		MTH BLK	W-MW1	W-MW2	W-MW3	W-MW4	W-MW5
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17
Date analyzed	Limits	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17	08/03/17
Kerosene/Jet fuel	0.20	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:							
Fluorobiphenyl		97%	94%	95%	97%	96%	94%
o-Terphenyl		99%	95%	95%	97%	96%	94%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

NWTPH-Dx, mg/L		W-MW6	W-MW7	W-MW8	W-MW9
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	08/03/17	08/03/17	08/03/17	08/03/17
Date analyzed	Limits	08/03/17	08/03/17	08/03/17	08/03/17
Kerosene/Jet fuel	0.20	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd
Surrogate recoveries:					
Fluorobiphenyl		95%	98%	95%	93%
o-Terphenyl		95%	99%	96%	93%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

PAH(8270), ug/L		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17
Date analyzed	Limits	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17
Naphthalene	0.1	nd		nd	4.3	0.60	nd
1-MethylNaphthalene	0.1	nd		nd	1.3	0.22	nd
2-MethylNaphthalene	0.1	nd		nd	0.92	0.14	nd
Acenaphthylene	0.1	nd		nd	nd	nd	nd
Acenaphthene	0.1	nd	109%	nd	nd	nd	nd
Fluorene	0.1	nd		nd	nd	nd	nd
Phenanthrene	0.1	nd		nd	1.0	0.82	0.36
Anthracene	0.1	nd		nd	nd	nd	nd
Fluoranthene	0.1	nd		nd	0.48	0.34	0.18
Pyrene	0.1	nd	108%	nd	0.50	0.36	0.18
Benzo(a)anthracene	0.1	nd		nd	nd	nd	nd
Chrysene	0.1	nd		nd	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd		nd	nd	nd	nd
Benzo(k)fluoranthene	0.1	nd		nd	nd	nd	nd
Benzo(a)pyrene	0.1	nd		nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.1	nd		nd	nd	nd	nd
Dibenzo(ah)anthracene	0.1	nd		nd	nd	nd	nd
Benzo(ghi)perylene	0.1	nd		nd	nd	nd	nd

Surrogate recoveries:

Fluorobiphenyl	109%	128%	99%	106%	115%	100%
o-Terphenyl	102%	97%	103%	98%	103%	103%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 50%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

PAH(8270), ug/L		W-MW5	W-MW6	W-MW8	W-MW9	MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17
Date analyzed	Limits	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17	08/07/17
Naphthalene	0.1	nd	nd	nd	nd			
1-MethylNaphthalene	0.1	nd	nd	nd	nd			
2-MethylNaphthalene	0.1	nd	nd	nd	nd			
Acenaphthylene	0.1	nd	nd	nd	nd			
Acenaphthene	0.1	nd	nd	nd	nd	104%	110%	5%
Fluorene	0.1	nd	nd	nd	nd			
Phenanthrene	0.1	nd	nd	nd	nd			
Anthracene	0.1	nd	nd	nd	nd			
Fluoranthene	0.1	nd	nd	nd	nd			
Pyrene	0.1	nd	nd	nd	nd	103%	108%	4%
Benzo(a)anthracene	0.1	nd	nd	nd	nd			
Chrysene	0.1	nd	nd	nd	nd			
Benzo(b)fluoranthene	0.1	nd	nd	nd	nd			
Benzo(k)fluoranthene	0.1	nd	nd	nd	nd			
Benzo(a)pyrene	0.1	nd	nd	nd	nd			
Indeno(1,2,3-cd)pyrene	0.1	nd	nd	nd	nd			
Dibenzo(ah)anthracene	0.1	nd	nd	nd	nd			
Benzo(ghi)perylene	0.1	nd	nd	nd	nd			

Surrogate recoveries:

Fluorobiphenyl	94%	105%	97%	110%	125%	128%	
o-Terphenyl	98%	99%	97%	101%	99%	102%	

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 50%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

Metals Total (7010), mg/L		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17
Date analyzed	Limits	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17
Lead Total (Pb)	0.002	nd	116%	nd	nd	nd	nd

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 30%

AAL Job Number: C70802-1
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 08/02/17

Analytical Results

Metals Total (7010), mg/L		W-MW5	W-MW6	W-MW7	W-MW8	W-MW9	MS	MSD
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17
Date analyzed	Limits	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17	08/02/17
Lead Total (Pb)	0.002	nd	nd	nd	nd	nd	96%	97%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 30%

AAL Job Number:	C70802-1
Client:	Aerotech Environmental
Project Manager:	Nick Gerkin
Client Project Name:	Fife RV Center
Client Project Number:	na
Date received:	08/02/17

Analytical Results

Metals Total (7010), mg/L		RPD
Matrix	Water	Water
Date extracted	Reporting	08/02/17
Date analyzed	Limits	08/02/17
Lead Total (Pb)	0.002	1%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 30%

LABORATORY CHAIN OF CUSTODY

ADVANCED ANALYTICAL

Chain of Custody Record

Laboratory Job #: C70802-1

4078 148 Avenue NE
Redmond, WA 98052
(425) 702-8571
aachemlab@yahoo.com

Client: Aerotech

Project Manager: Nick Gerkin

Address: 13925 Interurban Ave S, Tukwila, WA

Phone: 206 482 2287 Fax:

Project Name: Fife RV Center

Project Number: —

Collector: Nick Gerkin

Date of collection: 8/1/17

	Sample ID	Time	Matrix	Container type	8260 Volatiles	HVOC 8260	BTEX	BTEX/NWTPH-Gx	NWTPH-Gx	NWTPH-Dx ext	NWTPH-HCID	8270 Semivolatiles	8270 PAH	8082 PCBs	8081 Pesticides	RCRA 8 Metals	Lead Total	MTC5 Metals	Fld Filt 6020		Notes, comments	# of containers
1	W-MW1	1205	W	2 VOA 1 Poly 3 Amb		X		X		X			X				X		X			6
2	W-MW2	1430	↓	↓		X		X		X			X				X		X			↓
3	W-MW3	1315	↓	↓		X		X		X			X				X		X			↓
4	W-MW4	1340	↓	↓		X		X		X			X				X		X			↓
5	W-MW5	1130	↓	↓		X		X		X			X				X		X			↓
6	W-MW6	1105	↓	↓		X		X		X			X				X		X			↓
7	W-MW7	1418	↓	2 VOA 1 Poly 1 Amb		X		X		X							X		X			4
8	W-MW8	1000	↓	2 VOA 1 Poly 3 Amb		X		X		X			X				X		X			6
9	W-MW9	0925	↓	↓		X		X		X			X				X		X			↓
10																						
11																						
12																						

Relinquished by:	Date/Time	Received by:	Date/Time
[signature]	8/2/17 1015	S. [signature]	8/2/17 1015
Relinquished by:	**Date/Time**	**Received by:**	**Date/Time**
S. [signature]	8/2/17 11:05	V. Vaun	08/02/17 11:05

Sample receipt info:

Total # of containers:

Condition (temp, °C)

Seals (intact?, Y/N)

Comments:

Turnaround time:

Same day ○

24 hr ○

48 hr ○

Standard ☒

LOW-FLOW GROUNDWATER SAMPLING STANDARD OPERATING PROCEDURE

AEROTECH
Environmental Consulting Inc.
13925 Interurban Avenue South, Suite No.210
Seattle, Washington 98168
(360)710-5899

2916 NW Bucklin Hill Road, Suite No.126
Silverdale, Washington 98383
(866) 800-4030

512 W. International Airport Road, Suite 201
Anchorage, Alaska 99518
(907) 575-6661

5319 SW Westgate Dr., Suite No.24
Portland, Oregon 97221
(503) 360-4701

LOW-FLOW GROUNDWATER SAMPLING STANDARD OPERATING PROCEDURE

The following protocol and sampling procedures were designed to meet or exceed standards for groundwater monitoring well sampling, as specified by the State of Washington Department of Ecology *"Standard Operating Procedures for Purging and Sampling Monitoring Wells, Version 1.0,"* dated and approved on October 4, 2011. These procedures are strictly adhered to by Aerotech field staff:

Cross-Contamination Mitigation Protocol

A sampling table is set up adjacent to the well head in order to protect field equipment from contact with the ground, to prevent or minimize the possible introduction of foreign materials into the wells, and in general in order to mitigate the possibility of cross-contamination. Where previous laboratory data is available, or where visual of olfactory indicators provide initial evidence, well sampling order is arranged to proceed with the least contaminated well, often the upgradient groundwater monitoring wells, and sampling order proceeds by sampling wells associated with successively higher contamination levels. Thus, the wells exhibiting the highest contamination levels are sampled last, in order to minimize the possibility of cross contamination.

A fresh pair of disposable Nitrile gloves is worn at each well. Equipment neither disposable nor dedicated to wells, is washed in a dedicated container prepared with non-phosphate Alconox detergent and triple rinsed in a second container prepared with distilled and/or deionized water. Surfaces that cannot be readily submerged for the purpose of decontamination, are sprayed with wash water followed by rinse water, and wiped with a fresh disposable paper towel. For shallow wells that require a peristaltic pump, dedicated tubing is left in each well after sampling, however, for deeper wells that require a submersible pump, dedicated tubing is recovered from wells after each use, and deployed to a designated dedicated clean plastic bag, bearing a label indicating well identification information.

Water Level Measurement

Prior to the well purge process and the collection of groundwater samples, groundwater levels are measured at the north side of the ("TOC") with a piezometer/water level indicator, by slowly lowering the sensor into wells prior to purging, in order to minimize disturbances. The water levels are measured twice, with tape a marked in 0.01 foot increments, in order to reduce possible reading error. Where appropriate, free product thickness is measured with gas level indicator paste or an interface indicator. Upon arrival, each well is visual inspected and the condition of the well and well head are noted.

Groundwater Monitoring Well Purge and Sampling Methodologies

Prior to groundwater sample collection, A dedicated length of high density polyethylene tubing is lowered into each well to a level near the middle of the screened interval. A dedicated length of clean silicone tubing is utilized within the pump mechanism. The wells are purged by means of low flow techniques, during which time groundwater is monitored for physical parameters, including temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP), by means of a multi-parameter device mounted upon a flow cell, until such time as values recorded have stabilized and equilibrium conditions are verified according to State guidelines. This protocol ensures that collected groundwater samples are representative of in-situ groundwater conditions. Readings are recorded once every 2 to 5 minutes, including water level measurement. The pumping rate shall remain below 1 L/min during monitoring and sampling procedures. This is verified by periodically filling a one-Liter graduated cylinder and recording the rate, adjusting the pump as necessary. The water column within the well should remain within 5% of the static height during the purge and sample process, if this cannot be achieved, the pump rate will be reduced until the water level stabilizes. The following conditions must be met in three consecutive readings prior to sampling:

• pH	+/- 0.1 standard units
• Specific Conductivity	+/- 10.0 mS/cm for values < 1,000 mS/cm +/- 20.0 mS/cm for values > 1,000 mS/cm
• DO	+/- 0.05 mg/L for values < 1 mg/L +/- 0.2 mg/L for values > 1 mg/L
• Temperature	+/- 0.1 degrees Celcius
• ORP	+/- 10 mV

Groundwater samples are collected in containers specified by the laboratory for the analyses established at the Site, and in accordance with State of Washington regulations or guidelines. Sample containers are labeled with site name, well identification, and date of collection information. Each sample is documented on a *Chain of Custody* (“”COC”) form, and immediately placed in an iced cooler (maintained at 4 degrees Celcius or less) for transport to a certified laboratory for analysis. Please note that any purge water suspected or confirmed to contain concentrations above the MTCA Cleanup Levels is drummed and left on Site

Please feel free to contact the Aerotech Geologist/Hydrogeologist, Mr. James McDermott, at (425) 686-0032, or the Aerotech Environmental Scientist/Field Sampling Coordinator, Mr. Nicholas Gerkin, at (206) 482-2287, if you have questions regarding work completed at this Site.

FIELD DOCUMENTATION

AEROTECH
ENVIRONMENTAL CONSULTING

www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL GAUGING RECORD

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 08/01/17	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

Well ID	Time	Wellhead Elevation	Depth to Water	Groundwater Elevation	Depth of Well	Well Diameter	Comments
--	hh:mm	Feet Above MSL	Feet Below TOC	Feet Above MSL	Feet Below TOC	Inches	--
MW1	8:42	8.37	2.92	5.45	14.4	2	Well vaults, seals, bolts and plugs are in great condition.
MW2	8:46	9.40	4.40	5.00	14.2	2	Well vaults, seals, bolts and plugs are in great condition.
MW3	8:43	9.43	4.05	5.38	14.6	2	Well vaults, seals, bolts and plugs are in great condition.
MW4	8:45	10.12	5.61	4.51	14.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW5	8:41	11.27	8.31	2.96	17.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW6	8:39	11.40	7.32	4.08	17.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW7	8:37	10.09	5.83	4.26	14.2	1	Well vaults, seals, bolts and plugs are in great condition.
MW8	8:36	10.26	5.26	5.00	14.1	1	Well vaults, seals, bolts and plugs are in great condition.
MW9	8:34	8.84	3.57	5.27	14.3	1	Well vaults, seals, bolts and plugs are in great condition.

EXPLANATION
MSL = Mean Sea Level
TOC - Top of Casing

AEROTECH ENVIRONMENTAL CONSULTING

www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 08/01/17	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW1

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:42	2.92	--	--	--	--	--	--
11:51	3.35	210	18.3	756	0.70	6.80	-132.3
11:53	3.43	210	18.4	755	0.52	6.81	-135.6
11:55	3.50	210	18.7	756	0.43	6.81	-137.7
11:57	3.55	210	18.7	757	0.33	6.82	-140.2
11:59	3.58	210	18.8	755	0.27	6.82	-140.8
12:01	3.59	210	18.8	753	0.29	6.82	-141.7
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
12:05	**SAMPLE**	--	--	--	--	--	--

Comments:

MW2

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:46	4.40	--	--	--	--	--	--
14:21	5.09	200	18.7	564.0	0.31	6.80	-141.7
14:23	5.12	200	18.7	564.0	0.30	6.80	-142.5
14:25	5.14	200	18.8	566.2	0.29	6.80	-143.5
14:27	5.15	200	18.8	566.4	0.29	6.80	-144.1
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
14:30	**SAMPLE**	--	--	--	--	--	--

Comments:

AEROTECH ENVIRONMENTAL CONSULTING

www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 08/01/17	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW3

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:43	4.05	--	--	--	--	--	--
13:03	4.42	160	18.8	543.6	6.45	6.86	-88.0
13:05	4.45	160	18.7	549.4	1.15	6.84	-91.9
13:07	4.48	160	18.3	546.4	1.19	6.84	-93.6
13:09	4.49	160	18.2	549.5	1.23	6.84	-95.3
13:11	4.49	160	18.2	548.1	1.24	6.85	-96.2
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
13:15	**SAMPLE**	--	--	--	--	--	--

Comments:

MW4

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:45	5.61	--	--	--	--	--	--
13:31	5.89	190	17.9	617	0.95	6.70	-91.0
13:33	6.01	190	18.2	615	0.68	6.70	-94.7
13:35	6.12	190	18.3	615	0.67	6.70	-97.6
13:37	6.20	190	18.3	618	0.67	6.71	-99.6
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
13:40	**SAMPLE**	--	--	--	--	--	--

Comments:

AEROTECH ENVIRONMENTAL CONSULTING

www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 08/01/17	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW5

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:41	8.31	--	--	--	--	--	--
11:19	8.63	160	15.7	500.9	0.69	6.86	-74.4
11:21	8.83	160	15.9	198.7	0.53	6.87	-79.1
11:23	8.95	160	15.8	499.9	0.50	6.88	-82.4
11:25	9.01	160	15.9	498.9	0.48	6.85	-82.9
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
11:30	**SAMPLE**	--	--	--	--	--	--

Comments:

MW6

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:39	7.32	--	--	--	--	--	--
10:52	7.78	160	14.9	413.6	0.65	6.91	-85.7
10:54	7.82	160	15.0	413.6	0.55	6.77	-80.0
10:56	7.86	160	15.0	414.5	0.49	6.86	-86.8
10:58	7.90	160	14.9	414.4	0.50	6.88	-88.9
11:00	7.94	160	14.9	414.4	0.54	6.89	-89.6
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
11:05	**SAMPLE**	--	--	--	--	--	--

Comments:

AEROTECH ENVIRONMENTAL CONSULTING

www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 08/01/17	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW7

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:37	5.83	--	--	--	--	--	--
10:29	8.25	120	16.1	474.7	0.76	6.89	-101.1
10:31	9.70	120	16.1	477.4	0.60	6.86	-102.9
10:33	11.17	120	16.2	481.3	0.50	6.85	-102.7
10:35	12.44	120	16.2	484.4	0.47	6.85	-102.5
10:37	DRY	--	--	--	--	--	--
14:40	5.93	--	--	--	--	--	--
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
14:45	**SAMPLE**	--	--	--	--	--	--

Comments: 1.44L (1.1 Casing Volumes) was evacuated from MW7 prior to pumping dry. The well was left to recharge for 4 hours and 3 minutes before sampling.

MW8

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:36	5.26	--	--	--	--	--	--
9:52	7.37	120	17.8	778	1.26	6.99	-142.2
9:54	7.73	120	18.1	808	0.76	6.97	-145.1
9:56	8.04	120	17.6	818	0.78	6.98	-147.8
9:58	8.24	120	17.7	818	0.76	7.00	-148.8
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
10:00	**SAMPLE**	--	--	--	--	--	--

Comments:

AEROTECH ENVIRONMENTAL CONSULTING

www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL
LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 08/01/17	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW9

Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:34	3.57	--	--	--	--	--	--
9:17	3.57	200	17.5	639	0.80	6.88	-119.5
9:19	3.58	200	17.5	673	0.83	6.89	-125.3
9:21	3.58	200	17.5	698	0.73	6.90	-129.8
9:23	3.58	200	17.6	702	0.75	6.90	-132.8
9:25	3.58	200	17.5	707	0.70	6.92	-136.3
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
9:25	**SAMPLE**	--	--	--	--	--	--

Comments: