

December 26<sup>th</sup>, 2017

**Via Email**

Mr. Christer Loftenius - Hydrogeologist  
Toxics Cleanup Program  
WA Department of Ecology - Eastern Regional Office-  
4601 N. Monroe Street  
Spokane, WA 99205-1295

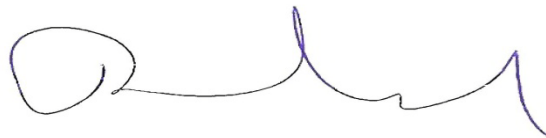
Re: **2<sup>nd</sup> Semi-Annual 2017 Ground-Water Monitoring Data Transmittal**  
Andeavor-Tesoro Logistics (Former Chevron) Pasco Bulk Fuel Terminal  
2900 Sacajawea Park Road, Pasco, Washington 99301  
Ecology Facility Site ID: 55763995; Cleanup Site ID: 4867

Dear Mr. Loftenius:

Enclosed please find monitoring data summary tables, site figures, and copies of laboratory data reports for the 2<sup>nd</sup> semi-annual 2017 ground-water monitoring event completed between October 23 and 25, 2017 at the Tesoro Logistics (Former Chevron) Pasco Bulk Fuel Terminal on Sacajawea Road in Pasco, Washington. These data are transmitted on behalf of Andeavor - Tesoro Logistics Operations LLC (Tesoro).

Please feel free to call me at (650) 827-7474 if you have any questions. I will be in touch shortly to discuss the status of this site further.

Sincerely,  
CEECON Testing, Inc.



Michael Hodges  
President

cc: Ms. Anastasia E. Duarte, RS – Andeavor Companies, Inc.  
Brent Pierce, Dan Andersen, Tesoro Logistics LLC (Pasco)  
Ms. Nicky Moody, Environmental Project Manager - Portland, AECOM

**CEECON Testing, Inc.**  
434 North Canal Street, Suite Six  
South San Francisco, CA 94080  
*CEECON@msn.com*

## **TABLES**

**TABLE 1**  
**OCTOBER 2017 GROUND-WATER MONITORING DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
**Pasco, Washington**

Sample Location	Date Sampled	Ground-Water Sample Analysis Results (ug/l)											Ground-Water Elevation Data (feet)				
		TPHmo (NWTPH-Rx)	TPHd (NWTPH-Dx)	TPHg (NWTPH-Gx)	Benz-ene	Tol-uene	Ethyl-benzene	Total Xylenes	MTBE	Ethanol	1,2-DCA	Naph-thalene	Well Screen Depth Interval	TOC Elevation	DTW	Elev-ation (MSL)	Change in Elevation
<b>Tesoro Logistics (former CPL)</b>																	
MW-1	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	73.9 - 93.9	419.40	Dry	--	--
MW-2	10/24/17	<250	<b>580</b>	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	68 - 83	417.28	74.12	343.16	-1.26
MW-3	10/25/17	410	<b>5,700</b>	380	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	75 - 95	423.42	80.23	343.19	-1.19
MW-4	--	--	--	--	--	--	--	--	--	--	--	--	56.75 - 76.75	412.09	--	--	--
MW-5	Well destroyed May 1987	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/23/17	<250	<100	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	8.5 - 23.5	358.61	17.01	341.60	-1.13
MW-7	10/24/17	<250	<100	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	57 - 77	411.40	68.22	343.18	-1.13
MW-8		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	29 - 54	383.91	--	--	--
MW-9	Well destroyed May 1987	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	55 - 78	407.91	--	--	--
MW-11	10/25/17	<250	360	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	75 - 85	423.48	80.31	343.17	-1.16
MW-12	10/24/17	<250	160	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	75 - 85	423.65	80.45	343.20	-1.15
	Duplicate	<250	180	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>					
MW-13	--	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	18.5 - 47.5	--	--	--	--
MW-14	10/24/17	<250	<100	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0 <sup>a</sup>	73 - 83	421.97	78.78	343.19	-1.23
RW-1	--	Well buried - status unknown											64- 98	417.29	--	--	--
Equipment Blank:																	
CEB	10/25/17	<250	0.13	<50	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<4.0					
Trip Blank:																	
Trip Blank	5/16/17	--	--	<50	<2.0	<2.0	<3.0	<3.0	<2.0	--	<2.0	<4.0					
Ecology Criteria <sup>(1)</sup>		500	500	1,000	5	1,000	700	1,000	20	NE	5	160					

## TABLE 1 (cont.)

**Notes:**

- (1) Washington Department of Ecology Method A cleanup levels as listed in Table 720-1 of the Model Toxics Control Act, revised 10/12/07  
a LCS or LCSD outside acceptance limits.

Concentrations in **bold** exceed Ecology Method A cleanup levels.

Change in elevations calculated using previous data collected May 15-17, 2017.

TPHmo = Total Petroleum Hydrocarbons as Motor Oil

TPHd = Total Petroleum Hydrocarbons as Diesel

TPHg = Total Petroleum Hydrocarbons as Gasoline

TOC = Top of casing elevation in feet MSL

DTW = Depth to water

MSL = Mean sea level

NS = Not sampled

-- = Not analyzed

**TABLE 2**  
**OCTOBER 2017 WATER QUALITY AND NATURAL ATTENUATION**  
**PARAMETER DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
Pasco, Washington

Sample ID	Date	FIELD MEASUREMENTS					ANALYTICAL PARAMETERS (Field and Lab)					
		pH	Specific Conductance	DO	Temp.	ORP	Sulfate	Nitrate	Ferrous Iron	Manganese	Methane	Alkalinity
		S.U.	mS/cm	mg/L	°C	mV	mg/L	ppm	ppm	mg/L	mg/L	mg/L
<b>Tesoro Logistics (former CPL)</b>												
MW-1	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/24/17	7.34	1.27	8.93	17.58	112	110	9.7	>0.01	<0.020	0.0083	350
MW-3	10/25/17	7.41	1.20	4.01	17.58	-105	--	--	--	--	--	--
MW-4	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	10/23/17	7.61	0.863	9.32	19.68	186	98	0.04	0.01	<0.020	<0.0050	180
MW-7	10/24/17	7.83	0.918	7.73	17.67	145	--	--	--	--	--	--
MW-8	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	10/25/17	7.37	1.04	7.49	18.57	154	--	--	--	--	--	--
MW-12	10/24/17	7.50	1.10	3.39	17.70	49	98	10.5	<0.01	0.19	0.090	270
MW-13	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	10/24/17	7.7	0.932	6.18	17.69	144	--	--	--	--	--	--
RW-1	--	Well buried - status unknown										

**Notes:**

- Not analyzed or measured
  - S.U. Standard Unit
  - mS/cm millisiemens per centimeter
  - mg/L milligrams per liter
  - ppm parts per million
  - °C degrees celsius
  - mV millivolts
  - ORP Oxidation Reduction Potential
  - a Well was silted in and not sampled.
- Water quality parameters collected in the field using a multiparameter Horiba U-55 meter.  
Dissolved oxygen (DO) measured using portable meter with downhole probe.  
Sulfate analyzed by EPA Method 300.  
Nitrate and ferrous iron measured in the field using colorimeter test kits.  
Manganese analyzed by EPA Method 200.7.  
Methane analyzed by Method RSK 175M.  
Alkalinity analyzed by SM2320B.

**TABLE A-1**  
**HISTORICAL GROUND-WATER MONITORING DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
**Pasco, Washington**

Sample Location	Date Sampled	Ground-Water Sample Analysis Results (ug/l)											Ground-Water Elevation Data (feet)				
		TPHmo (NWTPH- Rx)	TPHd (NWTPH- Dx)	TPHg (NWTPH- Gx)	Benz- ene	Tol- uene	Ethyl- benzene	Total Xylenes	MTBE	Ethanol	1,2- DCA	Naph- thalene	Well Screen Depth Interval	TOC Elevation	DTW	Elev- ation (MSL)	Change in Elevation
<b>Tesoro Logistics (former CPL)</b>																	
MW-1	8/29/16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	73.9 - 93.9	419.40	Dry	--	--
	5/17/17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	73.9 - 93.9	419.40	Dry	--	--
MW-2	5/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	63.3 - 83.3	417.28	72.83	344.45	0.38
	10/29/14	<500	<250	<250	<0.50	0.68	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	63.3 - 83.3	417.28	74.03	343.25	-1.20
	6/4/15	<250	140	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	63.3 - 83.3	417.28	73.31	343.97	0.72
	9/28/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	63.3 - 83.3	417.28	74.42	342.86	-1.11
	8/29/16	<b>710</b>	<b>1,400</b>	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	63.3 - 83.3	417.28	74.52	342.76	-0.10
	12/5/16	<250	410	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	63.3 - 83.3	417.28	74.02	343.26	0.50
	5/17/17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	63.3 - 83.3	417.28	72.86	344.42	1.16
	10/24/17	<250	<b>580</b>	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	68 - 83	417.28	74.12	343.16	-1.26
MW-3	5/28/14	<500	<b>1,100</b>	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	74.95 - 94.95	423.42	78.85	344.57	0.53
	10/30/14	<500	<b>18,000</b>	620	<0.50	1.4	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	74.95 - 94.95	423.42	80.18	343.24	-1.33
	6/4/15	<250	<b>3,300</b>	<250	<0.50	<0.50	<0.50	<1.0	<0.50	24.8	<0.50	0.51	74.95 - 94.95	423.42	79.46	343.96	0.72
	9/29/15	<250	<b>3,300</b>	<b>733</b>	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	74.95 - 94.95	423.42	80.58	342.84	-1.12
	8/30/16	<b>1,100</b>	<b>11,000</b>	<b>1,400</b>	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	2.50	74.95 - 94.95	423.42	80.60	342.82	-0.02
	12/6/16	290	<b>6,600</b>	290	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	74.95 - 94.95	423.42	80.17	343.25	0.43
	5/16/17	<250	<b>2,600</b>	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	74.95 - 94.95	423.42	79.04	344.38	1.13
	10/25/17	410	<b>5,700</b>	380	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	75 - 95	423.42	80.23	343.19	-1.19
MW-4	5/28/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	56.75 - 76.75	412.09	67.98	344.11	0.45
	10/28/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	56.75 - 76.75	412.09	69.17	342.92	-1.19
	6/3/15	<250	<100	<250	<0.50	0.52	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	56.75 - 76.75	412.09	68.48	343.61	0.69
	8/30/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	56.75 - 76.75	412.09	69.66	342.43	-0.14
	12/5/16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	56.75 - 76.75	412.09	--	--	--
5/15/17	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	56.75 - 76.75	412.09	68.02	344.07	--	
MW-5	Well destroyed May 1987																
MW-6	5/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	8.5 - 23.5	358.61	15.57	343.04	0.77
	10/29/14	<500	<250	<250	<0.50	4.9	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	8.5 - 23.5	358.61	16.82	341.79	-1.25
	6/3/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	8.5 - 23.5	358.61	16.18	342.43	0.64
	9/28/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	8.5 - 23.5	358.61	17.15	341.46	-0.97
	8/30/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	8.5 - 23.5	358.61	17.15	341.46	0.00
	12/5/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	8.5 - 23.5	358.61	16.91	341.70	0.24
	5/16/17	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	8.5 - 23.5	358.61	15.88	342.73	1.03
	10/23/17	<250	<100	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	8.5 - 23.5	358.61	17.01	341.60	-1.13
MW-7	5/28/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	57 - 77	411.40	67.02	344.38	0.35
	10/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	57 - 77	411.40	68.23	343.17	-1.21
	6/3/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	57 - 77	411.40	67.48	343.92	0.75
	9/28/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	57 - 77	411.40	68.61	342.79	-1.13
	8/30/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	57 - 77	411.40	68.74	342.66	-0.13

**TABLE A-1**  
**HISTORICAL GROUND-WATER MONITORING DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
**Pasco, Washington**

Sample Location	Date Sampled	Ground-Water Sample Analysis Results (ug/l)											Ground-Water Elevation Data (feet)				
		TPHmo (NWTPH- Rx)	TPHd (NWTPH- Dx)	TPHg (NWTPH- Gx)	Benz- ene	Tol- uene	Ethyl- benzene	Total Xylenes	MTBE	Ethanol	1,2- DCA	Naph- thalene	Well Screen Depth Interval	TOC Elevation	DTW	Elev- ation (MSL)	Change in Elevation
MW-8	12/5/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	57 - 77	411.40	68.18	343.22	0.56
	5/15/17	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	57 - 77	411.40	67.02	344.38	1.16
	10/24/17	<250	<100	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	57 - 77		68.22		--
	5/28/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	29 - 54	383.91	39.56	344.35	0.37
	10/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	29 - 54	383.91	40.78	343.13	-1.22
	6/3/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	29 - 54	383.91	40.04	343.87	0.74
	9/28/15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	29 - 54	383.91	41.13	342.78	-1.09
	8/30/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	29 - 54	383.91	40.30	343.61	0.83
	12/5/16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	29 - 54	383.91	--	--	--
MW-9	5/17/17 <250 <100 <500 <2.0 <2.0 <3.0 <3.0 <2.0 <10,000 <2.0 <2.0 29 - 54 383.91 39.56 344.35 --																
MW-10	Well destroyed May 1987																
MW-10	5/28/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	55 - 78	407.91	63.46	344.45	0.38
	10/29/14	<500	<250	<250	<0.50	1.1	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	55 - 78	407.91	64.68	343.23	-1.22
	6/3/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	55 - 78	407.91	63.91	344.00	0.77
	9/28/15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	55 - 78	407.91	65.02	342.89	-1.11
	8/30/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	55 - 78	407.91	65.22	342.69	-0.20
	12/5/16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	55 - 78	407.91	--	--	--
MW-11	5/15/17	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	55 - 78	407.91	63.50	344.41	--
	5/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	84.5 - 74.5	423.48	79.19	344.29	0.27
	10/30/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	84.5 - 74.5	423.48	80.31	343.17	-1.12
	6/4/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	84.5 - 74.5	423.48	79.55	343.93	0.76
	9/29/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	84.5 - 74.5	423.48	80.67	342.81	-1.12
	8/29/16	<250	<b>520</b>	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	84.5 - 74.5	423.48	80.42	343.06	0.25
	12/5/16	<250	360	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	84.5 - 74.5	423.48	80.29	343.19	0.13
	5/16/17	<250	390	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	84.5 - 74.5	423.48	79.15	344.33	1.14
MW-12	10/25/17	<250	360	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	75 - 85	423.48	80.31	343.17	-1.16
	5/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	33 - 60;	423.65	79.26	344.39	0.36
	Duplicate	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	75 - 85	423.65	--	--	--
	10/30/14	<500	<250	<250	<0.50	0.66	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	33 - 60;	423.65	80.45	343.20	-1.19
	Duplicate	<500	<250	<250	<0.50	0.67	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	75 - 85	423.65	--	--	--
	6/4/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	33 - 60;	423.65	79.72	343.93	0.73
	Duplicate	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	75 - 85	423.65	--	--	--
	9/29/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	33 - 60;	423.65	80.83	342.82	-1.11
	Duplicate	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	75 - 85	423.65	--	--	--
	8/29/16	270	<b>750</b>	58	<b>6.0</b>	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	33 - 60;	423.65	80.98	342.67	-0.15
	Duplicate	270	<b>730</b>	<50	4.3	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	75 - 85	423.65	--	--	--
12/6/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	33 - 60;	423.65	80.48	343.17	0.50	
Duplicate	<250	<b>150</b>	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	75 - 85	423.65	--	--	--	
5/16/17	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	33 - 60;	423.65	79.30	344.35	1.18	

**TABLE A-1**  
**HISTORICAL GROUND-WATER MONITORING DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
**Pasco, Washington**

Sample Location	Date Sampled	Ground-Water Sample Analysis Results (ug/l)											Ground-Water Elevation Data (feet)				
		TPHmo (NWTPH- Rx)	TPHd (NWTPH- Dx)	TPHg (NWTPH- Gx)	Benz- ene	Tol- uene	Ethyl- benzene	Total Xylenes	MTBE	Ethanol	1,2- DCA	Naph- thalene	Well Screen Depth Interval	TOC Elevation	DTW	Elev- ation (MSL)	Change in Elevation
	Duplicate	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	75 - 85	--	--	--	--
	10/24/17	<250	160	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	75 - 85	423.65	80.45	343.20	-1.15
	Duplicate	<250	180	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	75 - 85	--	--	--	--
MW-13	5/16/17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	18.5 - 47.5	--	Dry	--	--
MW-14	5/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	27.5 - 53;	421.97	77.58	344.39	0.36
	10/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	72.5 - 82.5	421.97	78.80	343.17	-1.22
	6/4/15	<250	<100	<250	<0.50	0.72	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50	27.5 - 53;	421.97	78.04	343.93	0.76
	9/28/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50	72.5 - 82.5	421.97	79.18	342.79	-1.14
	8/29/16	<250	120	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	27.5 - 53;	421.97	79.32	342.65	-0.14
	12/5/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0	27.5 - 53;	421.97	78.75	343.22	0.57
	5/17/17	<250	<100	<500	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0	27.5 - 53;	421.97	77.55	344.42	1.20
	10/24/17	<250	<100	<250	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<2.0a	73 - 83	421.97	78.78	343.19	-1.23
RW-1		Well buried - status unknown											64- 98	417.29	--	--	--
Ecology Criteria <sup>(1)</sup>		500	500	1,000	5	1,000	700	1,000	20	N/A							

Equipment Blank:

EB-0514	5/28/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
EB-1014	10/29/14	<500	<250	<250	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
EB-0615	6/4/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<0.50
EB-0915	9/28/15	<250	<100	<250	<0.50	<0.50	<0.50	<1.0	<0.50	--	<0.50	<0.50
C-EB	8/29/16	<250	140	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0
CEB	12/6/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0
CEB	5/16/17	<250	<100	<50	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<4.0
Trip Blank	8/29/16	--	--	--	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0
Trip Blank (1)	12/5/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0
Trip Blank (2)	12/6/16	<250	<110	<50	<2.0	<2.0	<3.0	<3.0	<1.0	<10,000	<1.0	<2.0
Trip Blank	5/16/17	<250	<100	<50	<2.0	<2.0	<3.0	<3.0	<2.0	--	<2.0	<4.0
EB-1017	10/25/17	<250	<b>0.13</b>	<50	<2.0	<2.0	<3.0	<3.0	<2.0	<10,000	<2.0	<4.0
Trip Blank	10/25/17	--	--	<50	<2.0	<2.0	<3.0	<3.0	<2.0	--	<2.0	<4.0

Notes:

(1) Washington Department of Ecology Method A cleanup levels as listed in Table 720-1 of the Model Toxics Control Act, revised October 12, 2007

Concentrations in **bold** exceed Ecology cleanup levels.

May 2014 change in elevations calculated using previous data collected 12/2010.

Equipment blank samples EB-0514 and EB-1014 below reporting limits for all

TPHmo = Total Petroleum Hydrocarbons as Motor Oil  
 TPHd = Total Petroleum Hydrocarbons as Diesel  
 TPHg = Total Petroleum Hydrocarbons as Gasoline  
 TOC = Top of casing elevation in feet MSL

DTW = Depth to water  
 MSL = Mean sea level  
 NS = Not sampled  
 -- = Not analyzed  
 ND = Non Detect  
 a = LCS or LCSD outside acceptance



**TABLE A-1**  
**HISTORICAL GROUND-WATER MONITORING DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
**Pasco, Washington**

Sample Location	Date Sampled	Ground-Water Sample Analysis Results (ug/l)										Ground-Water Elevation Data (feet)			
		TPHmo (NWTPH- Rx)	TPHd (NWTPH- Dx)	TPHg (NWTPH- Gx)	Benz- ene	Tol- uene	Ethyl- benzene	Total Xylenes	MTBE	Ethanol	1,2- DCA	Naph- thalene	Well Screen Depth Interval	TOC Elevation a	DTW = LCS or LCSD
constituents except TBA (15 and 12 ug/l, respectively)															

**TABLE A-2**  
**HISTORICAL WATER QUALITY AND NATURAL ATTENUATION**  
**PARAMETER DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
Pasco, Washington

Sample ID	Date	Field Measurements					Analytical Parameters (Field and Lab)					
		pH	Specific Conductance	DO	Temp.	ORP	Sulfate	Nitrate	Ferrous Iron	Manganese	Methane	Alkalinity
		S.U.	mS/cm	mg/L	°C	mV	mg/L	ppm	ppm	mg/L	mg/L	mg/L
<b>Tesoro Logistics (former CPL)</b>												
MW-2	5/29/14	7.16	1.215	2.49	17.58	146.3	100	13.8	1.16	<0.0050	<0.001	537
	10/29/14	6.85	1.578	1.07	17.51	91.6	140	2.6	1.33	0.011	<0.001	730
	6/4/15	6.84	1.018	2.21	17.97	-66.6	107	0.1	0.53	<0.0050	<0.001	558
	9/28/15	6.91	1.467	1.77	17.60	-7.0	167	1.7	--	<0.0050	0.0242	711
	8/29/16	7.38	1.40	1.74	19.89	94	110	--	--	<0.020	<0.0050	--
	12/5/16	6.63	1.05	6.16	15.80	282	89	--	--	--	<0.0050	400
	10/24/17	7.34	1.27	8.93	17.58	112.00	110.00	9.70	>0.01	<0.020	0.01	350.00
MW-3	5/28/14	7.15	1.053	--	18.12	-105.6	--	--	--	--	--	--
	10/30/14	6.91	1.136	0.84	17.28	-144.7	--	--	--	--	--	--
	6/4/15	6.82	1.353	0.95	18.61	-154.0	--	--	--	--	--	--
	9/29/15	6.82	1.174	1.01	17.51	-174.4	--	--	--	--	--	--
	8/30/16	7.13	1.190	2.42	18.13	-153.0	--	--	--	--	--	--
	12/2/16	6.86	0.963	3.24	16.06	36	--	--	--	--	--	--
	10/25/17	7.41	1.20	4.01	17.58	-105	--	--	--	--	--	--
MW-4	5/28/14	7.68	0.728	--	17.78	82.2	--	--	--	--	--	--
	10/28/14	7.38	0.741	7.75	16.90	36.0	--	--	--	--	--	--
	6/3/15	7.40	0.751	8.28	17.76	-23.6	--	--	--	--	--	--
	9/28/15	--	--	--	--	--	--	--	--	--	--	--
	8/30/16	8.36	0.813	7.34	18.32	59	--	--	--	--	--	--
	12/5/16	--	--	--	--	--	--	--	--	--	--	--
MW-6	5/29/14	7.93	0.095	8.78	15.40	127.1	110	18.5	0.00	<0.0050	<0.001	252
	10/29/14	7.43	0.817	6.79	19.45	84.7	100	0.0	0.40	<0.0050	<0.001	185
	6/3/15	7.53	0.744	8.59	17.18	-44.8	107	0.0	0.00	<0.0050	0.00168	169
	9/28/15	7.53	0.812	6.76	19.23	-8.5	108	15.7	--	<0.0050	<0.001	189
	8/30/16	8.30	0.836	7.39	18.88	110	100	--	--	<0.020	<0.0050	--
	12/5/16	6.83	0.851	6.84	14.54	207	93	--	--	<0.020	<0.0050	170
	10/23/17	7.61	0.863	9.32	19.68	186	98	0.04	0.01	<0.020	<0.0050	180
MW-7	5/28/14	7.63	0.775	--	18.48	101.7	--	--	--	--	--	--
	10/29/14	7.48	0.773	7.43	16.81	84.1	--	--	--	--	--	--
	6/3/15	7.10	0.843	6.78	18.03	-1.8	--	--	--	--	--	--
	9/28/15	7.10	0.798	7.40	17.31	-6.4	103	6.0	--	0.0086	<0.001	203
	8/30/16	7.96	0.964	6.92	19.01	94	--	--	--	--	--	--
	12/5/16	7.06	0.839	7.90	15.85	165	--	--	--	--	--	--

**TABLE A-2**  
**HISTORICAL WATER QUALITY AND NATURAL ATTENUATION**  
**PARAMETER DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
Pasco, Washington

Sample ID	Date	Field Measurements					Analytical Parameters (Field and Lab)					
		pH	Specific Conductance	DO	Temp.	ORP	Sulfate	Nitrate	Ferrous Iron	Manganese	Methane	Alkalinity
		S.U.	mS/cm	mg/L	°C	mV	mg/L	ppm	ppm	mg/L	mg/L	mg/L
	10/24/17	7.83	0.918	7.73	17.67	145	--	--	--	--	--	--
MW-8	5/28/14	7.70	0.755	--	17.50	89.5	110	16.8	0.59	<0.0050	<0.001	242
	10/29/14	7.37	0.774	7.05	17.34	75.3	100	18.4	0.00	0.0072	<0.001	190
	6/3/15	7.39	0.778	7.38	17.90	-42.7	108	16.7	0.00	<0.0050	<0.001	185
	9/28/15	--	--	--	--	--	--	--	--	--	--	--
	8/30/16	7.72	0.843	5.29	19.46	143	100	--	--	<0.020	<0.0050	--
	12/5/16	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	5/28/14	7.65	0.764	--	17.91	137.6	--	--	--	--	--	--
	10/29/14	7.40	0.769	7.45	17.02	80.6	--	--	--	--	--	--
	6/3/15	7.29	0.78	7.32	17.90	-34.4	--	--	--	--	--	--
	9/28/15	--	--	--	--	--	--	--	--	--	--	--
	8/30/16	8.28	0.831	5.40	18.26	100	--	--	--	--	--	--
	12/5/16	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	5/29/14	7.20	0.889	1.08	19.27	102.7	--	--	--	--	--	--
	10/30/14	6.96	0.932	1.12	18.47	89.0	--	--	--	--	--	--
	6/4/15	6.89	0.916	0.94	18.97	-49.8	--	--	--	--	--	--
	9/29/15	6.89	0.914	0.89	18.40	-15.4	--	--	--	--	--	--
	8/29/16	7.32	0.952	2.67	19.99	148	--	--	--	--	--	--
	12/5/16	6.70	0.933	1.73	17.14	204	--	--	--	--	--	--
	10/25/17	7.37	1.040	7.49	18.57	154	--	--	--	--	--	--
MW-12	5/29/14	7.22	0.993	1.81	19.82	-27.5	110	9.2	--	0.270	0.0142	309
	10/30/14	6.82	1.135	2.55	16.73	-50.6	110	0.0	4.68	0.280	0.0870	350
	6/4/15	6.82	1.017	2.17	18.40	-74.5	113	10.4	0.34	0.201	<0.001	312
	9/29/15	6.82	1.124	1.15	16.49	-63.7	107	7.0	--	0.252	0.0362	367
	8/29/16	7.45	1.290	1.10	19.42	-10	83	--	--	0.25	0.760	--
	12/6/16	6.80	0.993	3.22	14.52	121	--	--	--	0.19	0.063	270
	10/24/17	7.50	1.100	3.39	17.70	49	98.0	10.5	<0.01	0.19	0.090	270.0
MW-13	--	--	--	--	--	--	--	--	--	--	--	--

**TABLE A-2**  
**HISTORICAL WATER QUALITY AND NATURAL ATTENUATION**  
**PARAMETER DATA - TESORO WELLS**  
**Tesoro Logistics Pasco Terminal**  
Pasco, Washington

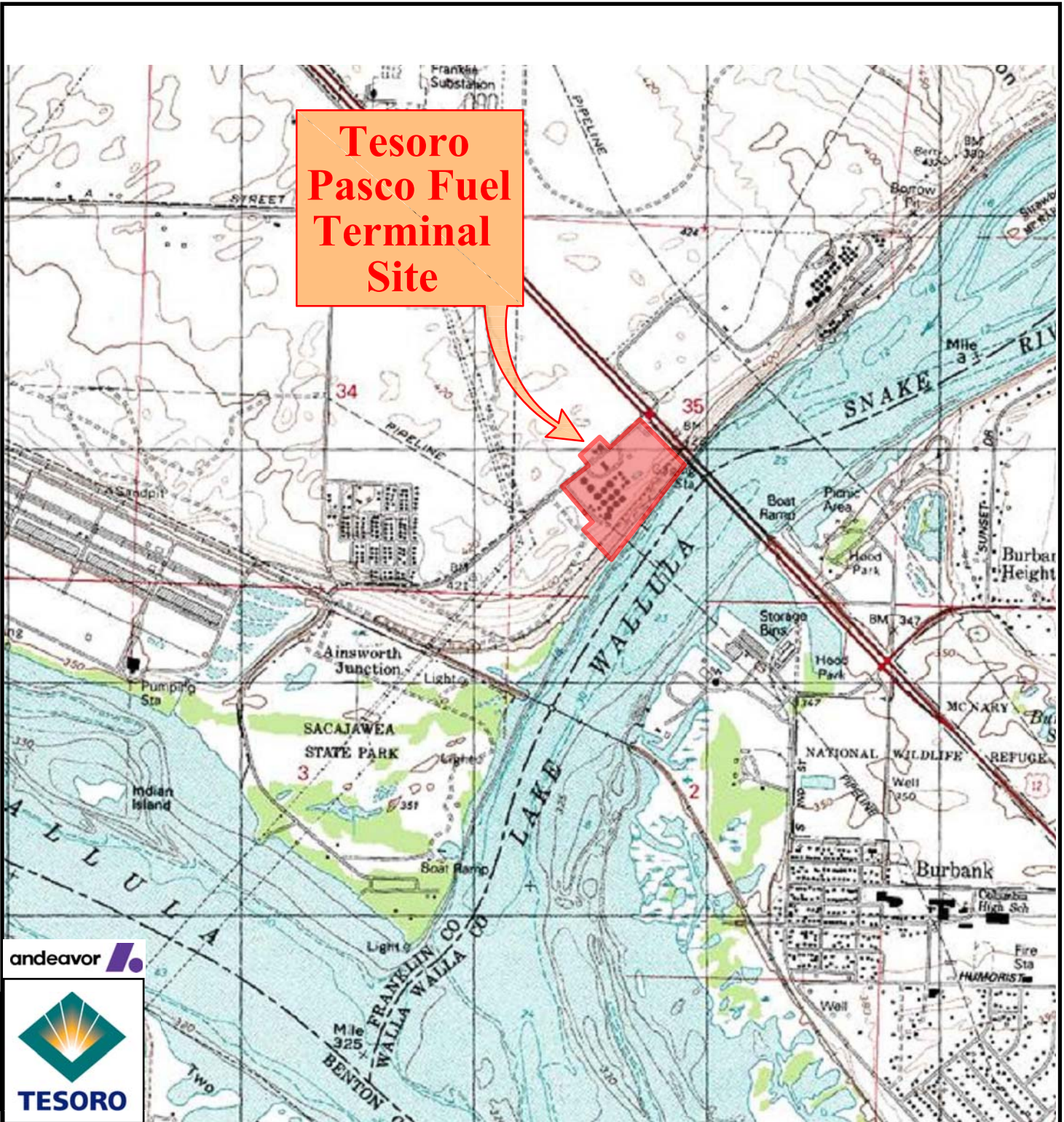
Sample ID	Date	Field Measurements					Analytical Parameters (Field and Lab)					
		pH	Specific Conductance	DO	Temp.	ORP	Sulfate	Nitrate	Ferrous Iron	Manganese	Methane	Alkalinity
		S.U.	mS/cm	mg/L	°C	mV	mg/L	ppm	ppm	mg/L	mg/L	mg/L
MW-14	5/29/14	7.53	0.795	5.70	17.69	101.4	--	--	--	--	--	--
	10/29/14	7.23	0.805	5.65	17.81	105.4	--	--	--	--	--	--
	6/4/15	7.39	0.784	6.22	17.02	-46.6	--	--	--	--	--	--
	8/29/16	7.71	0.877	5.19	18.76	120	--	--	--	--	--	--
	12/5/16	6.97	0.855	6.29	15.43	178	--	--	--	--	--	--
	10/24/17	7.70	0.932	6.18	17.69	144	--	--	--	--	--	--

**Notes:**

-- Not analyzed or measured  
S.U. Standard Unit  
mS/cm millisiemens per centimeter  
mg/L milligrams per liter  
ppm parts per million  
°C degrees celsius  
mV millivolts  
ORP Oxidation Reduction Potential

Water quality parameters collected in the field using a multiparameter YSI-556 meter.  
Dissolved oxygen (DO) measured using portable meter with downhole probe.  
Sulfate analyzed by EPA Method 300.  
Nitrate and ferrous iron measured in the field using colorimeter test kits.  
Manganese analyzed by EPA Method 200.7.  
Methane analyzed by Method RSK 175M.  
Alkalinity analyzed by SM2320B.

## **FIGURES**

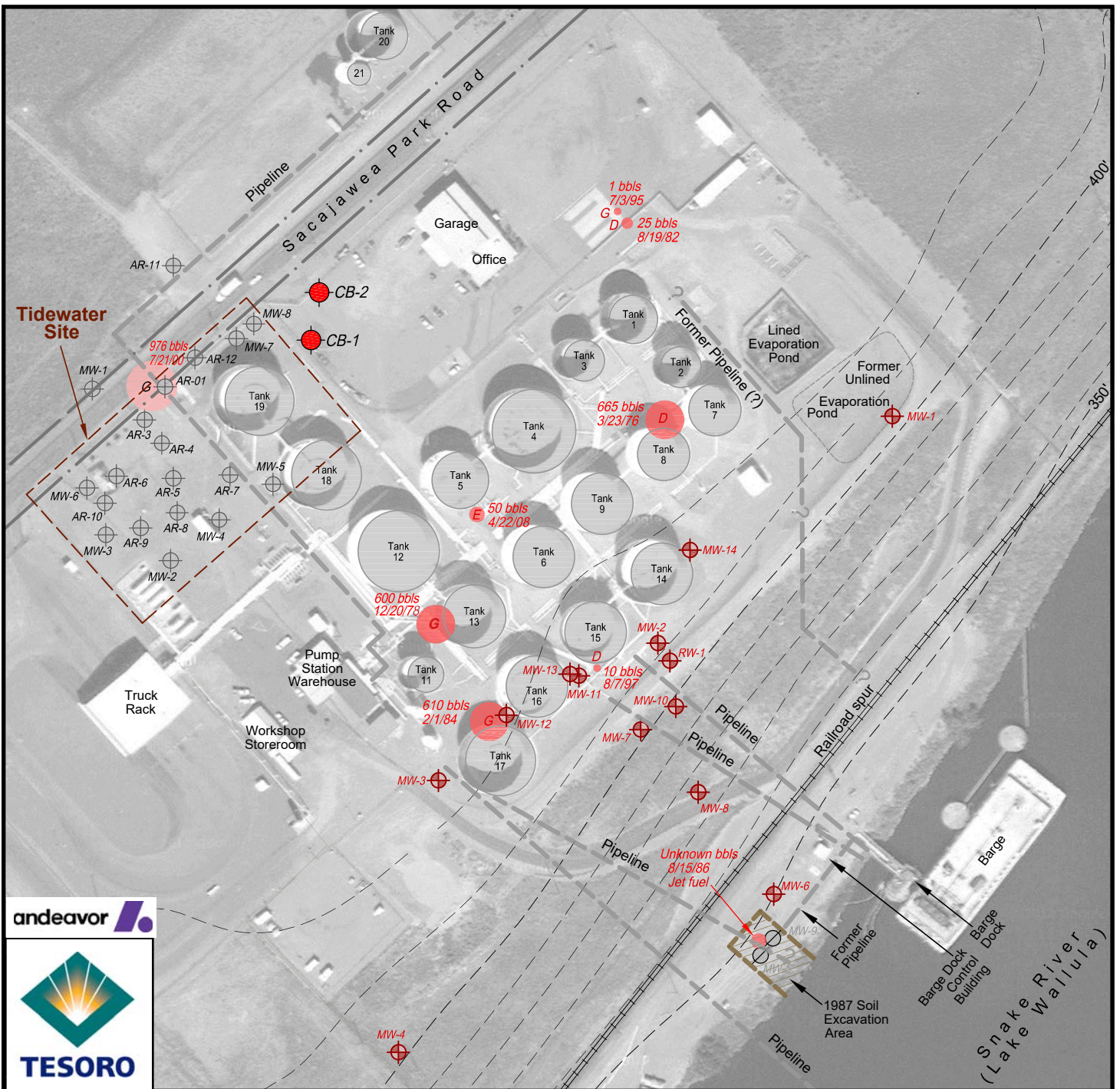


Map Source:  
U.S.G.S. Pasco, Washington  
1:24,000-scale series (topographic)  
1992 edition



**SITE VICINITY MAP**  
Tesoro Pasco Fuel Terminal Site  
Pasco, Washington

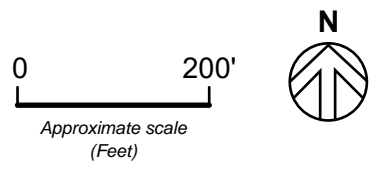
**FIGURE 1**  
**DEC 2017**



**EXPLANATION**

- Tesoro well
  - Tidewater well
  - Former well
  - Tesoro boring (6/15)
- |  |                    |              |
|--|--------------------|--------------|
|  | Previous spill     |              |
| Number of barrels (circle relative to size of spill) | Date of spill      | Fuel spilled |
|  | 610 bbls<br>2/1/84 |              |

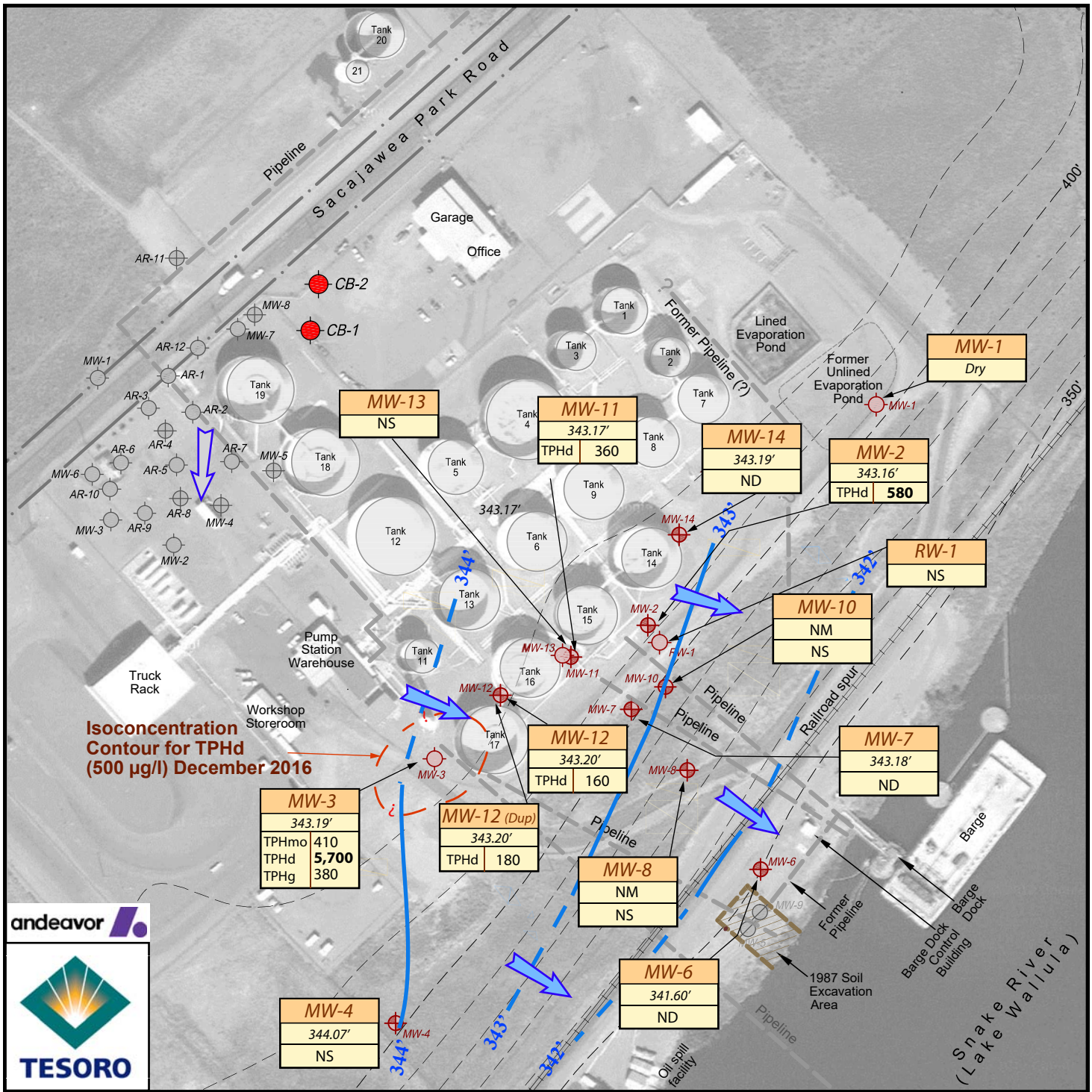
Imagery: earthexplorer.usgs.gov  
 Site information: URS, 2011,  
 GeoEngineers, 1987



**AREA MAP**  
 Tesoro Pasco Fuel Terminal Site  
 Pasco, Washington

**FIGURE 2**

**DEC 2017**



**Isoconcentration Contour for TPHd (500 µg/l) December 2016**



- EXPLANATION**
- Tesoro well
  - Tidewater well
  - Former well
  - Tesoro boring (6/15)

<b>MW-2</b>	Well name
343.16'	Ground-water elevation (feet MSL) on Oct. 23-25, 2017
TPHd <b>580</b>	Chemical concentration (µg/l)
ND	Non-detect for all constituents
NS	Not sampled

Ground-water flow direction inferred from historical conditions (nearly flat gradient)

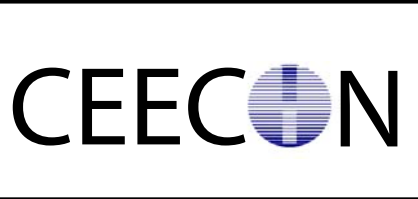
Ground-water flow direction near Snake River

Concentrations in **bold** exceed Ecology cleanup levels

Ground-water elevation contour (feet MSL; dashed where inferred)

0 100' 200'

Imagery: earthexplorer.usgs.gov  
Site information: URS, 2011  
GeoEngineers, 1987



**2017 GROUND-WATER MONITORING RESULTS**  
**October 23-25, 2017**  
 Tesoro Pasco Fuel Terminal Site  
 Pasco, Washington

**FIGURE 3**  
**DEC 2017**



**ATTACHMENT**  
**LABORATORY ANALYTICAL REPORT**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

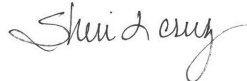
TestAmerica Seattle  
5755 8th Street East  
Tacoma, WA 98424  
Tel: (253)922-2310

TestAmerica Job ID: 580-72468-1  
Client Project/Site: Tesoro Pasco  
Sampling Event: Pasco

For:

CEECON Testing, Inc.  
434 North Canal Street  
Suite Six  
South San Francisco, California 94080

Attn: Michael Hodges



Authorized for release by:  
11/17/2017 2:54:38 PM

Sheri Cruz, Project Manager I  
(253)922-2310  
[sheri.cruz@testamericainc.com](mailto:sheri.cruz@testamericainc.com)

### LINKS

Review your project  
results through  
**Total Access**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

1

2

3

4

5

6

7

8

9

10

11



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Definitions . . . . .	5
Client Sample Results . . . . .	6
QC Sample Results . . . . .	24
Chronicle . . . . .	36
Certification Summary . . . . .	40
Sample Summary . . . . .	42
Chain of Custody . . . . .	43
Receipt Checklists . . . . .	46

# Case Narrative

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Job ID: 580-72468-1**

**Laboratory: TestAmerica Seattle**

## Narrative

### Job Narrative 580-72468-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/27/2017 3:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were -0.4° C and 1.7° C.

#### GC/MS VOA

Method(s) 8260C: The batch CCV and LCSD for 260864 recovered naphthalene below acceptance criteria. The samples could not be re-analyzed within hold, therefore the data has been reported as secondary and both sets of data reported to confirm the first run in hold. C-MW-03-10/17 (580-72468-2), C-MW-07-10/17 (580-72468-4), C-MW-11-10/17 (580-72468-5), C-MW-12-10/17 (580-72468-6), C-MW-12D-10/17 (580-72468-7), C-MW-14-10/17 (580-72468-8), (LCS 580-260864/13), (LCSD 580-260864/14) and (MB 580-260864/12)

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 580-260932 recovered above the upper control limit for Naphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: C-EB-10/17 (580-72468-9), Trip Blank (580-72468-10) and (CCVIS 580-260932/3).

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 580-260932 recovered outside control limits for the following analytes: Naphthalene.

Method(s) 8260C: The following analyte(s) recovered outside control limits for the LCS/LCSD associated with analytical batch 580-260932: Naphthalene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method(s) 8260C: The surrogate dibromofluoromethane recovery for the blank and following samples associated with analytical batch 580-261118 was outside control limits. No analytes associated with this surrogate have been reported.

Method(s) 8260C: Surrogate Dibromofluoromethane was out 2% low. The other 4 surrogates were within acceptance criteria and reanalysis was for Naphthalene only. No analytes associated with this surrogate have been reported. C-MW-06-10/17 (580-72468-3)

Method(s) 8260C: Reanalysis of the following samples was performed outside of the analytical holding time due to quality control deficiencies in the initial analysis. : C-MW-02-10/17 (580-72468-1), C-MW-03-10/17 (580-72468-2), C-MW-06-10/17 (580-72468-3), C-MW-07-10/17 (580-72468-4), C-MW-11-10/17 (580-72468-5), C-MW-12-10/17 (580-72468-6), C-MW-12D-10/17 (580-72468-7), and C-MW-14-10/17 (580-72468-8). Both runs in hold and out of hold were reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

Method(s) NWTPH-Dx: The following sample contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: C-MW-02-10/17 (580-72468-1).

Method(s) RSK-175: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 490-472501.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Case Narrative

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

---

## Job ID: 580-72468-1 (Continued)

---

### Laboratory: TestAmerica Seattle (Continued)

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

1

2

3

4

5

6

7

8

9

10

11

# Definitions/Glossary

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
H	Sample was prepped or analyzed beyond the specified holding time
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-02-10/17**

**Lab Sample ID: 580-72468-1**

**Date Collected: 10/24/17 12:10**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 02:29	1
1,2-DCA	ND		2.0		ug/L			11/07/17 02:29	1
Benzene	ND		2.0		ug/L			11/07/17 02:29	1
DIPE	ND		2.0		ug/L			11/07/17 02:29	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 02:29	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 02:29	1
MTBE	ND		2.0		ug/L			11/07/17 02:29	1
Naphthalene	ND *		4.0		ug/L			11/07/17 02:29	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 02:29	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 02:29	1
Toluene	ND		2.0		ug/L			11/07/17 02:29	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		11/07/17 02:29	1
4-Bromofluorobenzene (Surr)	98		75 - 125		11/07/17 02:29	1
Dibromofluoromethane (Surr)	102		77 - 120		11/07/17 02:29	1
Toluene-d8 (Surr)	101		80 - 122		11/07/17 02:29	1
Trifluorotoluene (Surr)	102		80 - 120		11/07/17 02:29	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	4.0		ug/L			11/10/17 13:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 126		11/10/17 13:57	1
4-Bromofluorobenzene (Surr)	94		75 - 125		11/10/17 13:57	1
Dibromofluoromethane (Surr)	102		77 - 120		11/10/17 13:57	1
Toluene-d8 (Surr)	113		80 - 122		11/10/17 13:57	1
Trifluorotoluene (Surr)	92		80 - 120		11/10/17 13:57	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:01	1
Methanol	ND		10		mg/L			11/01/17 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	93		52 - 128		11/01/17 17:01	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		58 - 133		10/31/17 15:01	1
Trifluorotoluene (Surr)	109		77 - 128		10/31/17 15:01	1

## Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methane</b>	<b>0.0083</b>		0.0050		mg/L			11/02/17 12:59	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-02-10/17**

**Lab Sample ID: 580-72468-1**

**Date Collected: 10/24/17 12:10**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	79		62 - 124		11/02/17 12:59	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.58		0.10		mg/L		11/03/17 09:12	11/06/17 18:20	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		50 - 150	11/03/17 09:12	11/06/17 18:20	1

**Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.020		mg/L		10/31/17 17:34	11/01/17 08:00	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	110		6.0		mg/L			10/31/17 18:33	5
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	350		5.0		mg/L			11/04/17 17:47	1
Bicarbonate Alkalinity as CaCO3	350		5.0		mg/L			11/04/17 17:47	1
Carbonate Alkalinity as CaCO3	ND		5.0		mg/L			11/04/17 17:47	1
Hydroxide Alkalinity as CaCO3	ND		5.0		mg/L			11/04/17 17:47	1



# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-03-10/17**

**Lab Sample ID: 580-72468-2**

**Date Collected: 10/25/17 10:30**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 16:24	1
1,2-DCA	ND		2.0		ug/L			11/07/17 16:24	1
Benzene	ND		2.0		ug/L			11/07/17 16:24	1
DIPE	ND		2.0		ug/L			11/07/17 16:24	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 16:24	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 16:24	1
MTBE	ND		2.0		ug/L			11/07/17 16:24	1
Naphthalene	ND	*	4.0		ug/L			11/07/17 16:24	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 16:24	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 16:24	1
Toluene	ND		2.0		ug/L			11/07/17 16:24	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 126		11/07/17 16:24	1
4-Bromofluorobenzene (Surr)	99		75 - 125		11/07/17 16:24	1
Dibromofluoromethane (Surr)	100		77 - 120		11/07/17 16:24	1
Toluene-d8 (Surr)	100		80 - 122		11/07/17 16:24	1
Trifluorotoluene (Surr)	104		80 - 120		11/07/17 16:24	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	*	4.0		ug/L			11/08/17 10:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 126		11/08/17 10:49	1
4-Bromofluorobenzene (Surr)	97		75 - 125		11/08/17 10:49	1
Dibromofluoromethane (Surr)	102		77 - 120		11/08/17 10:49	1
Toluene-d8 (Surr)	99		80 - 122		11/08/17 10:49	1
Trifluorotoluene (Surr)	99		80 - 120		11/08/17 10:49	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:19	1
Methanol	ND		10		mg/L			11/01/17 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	95		52 - 128		11/01/17 17:19	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	0.38		0.25		mg/L			10/31/17 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		58 - 133		10/31/17 15:33	1
Trifluorotoluene (Surr)	105		77 - 128		10/31/17 15:33	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	5.7		0.10		mg/L		11/03/17 09:12	11/06/17 18:42	1
Motor Oil (>C24-C36)	0.41		0.25		mg/L		11/03/17 09:12	11/06/17 18:42	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-03-10/17**

**Date Collected: 10/25/17 10:30**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-2**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	82		50 - 150	11/03/17 09:12	11/06/17 18:42	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-06-10/17**

**Lab Sample ID: 580-72468-3**

**Date Collected: 10/23/17 10:35**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/06/17 22:20	1
1,2-DCA	ND		2.0		ug/L			11/06/17 22:20	1
Benzene	ND		2.0		ug/L			11/06/17 22:20	1
DIPE	ND		2.0		ug/L			11/06/17 22:20	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/06/17 22:20	1
Ethylbenzene	ND		3.0		ug/L			11/06/17 22:20	1
MTBE	ND		2.0		ug/L			11/06/17 22:20	1
Naphthalene	ND *		4.0		ug/L			11/06/17 22:20	1
t-Butyl alcohol	ND		100		ug/L			11/06/17 22:20	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/06/17 22:20	1
Toluene	ND		2.0		ug/L			11/06/17 22:20	1
Xylenes, Total	ND		3.0		ug/L			11/06/17 22:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		11/06/17 22:20	1
4-Bromofluorobenzene (Surr)	100		75 - 125		11/06/17 22:20	1
Dibromofluoromethane (Surr)	101		77 - 120		11/06/17 22:20	1
Toluene-d8 (Surr)	102		80 - 122		11/06/17 22:20	1
Trifluorotoluene (Surr)	104		80 - 120		11/06/17 22:20	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	4.0		ug/L			11/10/17 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		80 - 126		11/10/17 14:22	1
4-Bromofluorobenzene (Surr)	96		75 - 125		11/10/17 14:22	1
Dibromofluoromethane (Surr)	74	X	77 - 120		11/10/17 14:22	1
Toluene-d8 (Surr)	112		80 - 122		11/10/17 14:22	1
Trifluorotoluene (Surr)	93		80 - 120		11/10/17 14:22	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:25	1
Methanol	ND		10		mg/L			11/01/17 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	103		52 - 128		11/01/17 17:25	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 16:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		58 - 133		10/31/17 16:05	1
Trifluorotoluene (Surr)	107		77 - 128		10/31/17 16:05	1

## Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			11/01/17 12:33	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-06-10/17**

**Lab Sample ID: 580-72468-3**

**Date Collected: 10/23/17 10:35**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	93		62 - 124		11/01/17 12:33	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.10		mg/L		11/03/17 09:12	11/06/17 19:04	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	11/03/17 09:12	11/06/17 19:04	1

**Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.020		mg/L		10/31/17 17:34	11/01/17 08:30	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	98		1.2		mg/L			10/31/17 13:59	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	180		5.0		mg/L			11/04/17 17:48	1
Bicarbonate Alkalinity as CaCO3	180		5.0		mg/L			11/04/17 17:48	1
Carbonate Alkalinity as CaCO3	ND		5.0		mg/L			11/04/17 17:48	1
Hydroxide Alkalinity as CaCO3	ND		5.0		mg/L			11/04/17 17:48	1

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-07-10/17**

**Lab Sample ID: 580-72468-4**

**Date Collected: 10/24/17 15:03**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 16:49	1
1,2-DCA	ND		2.0		ug/L			11/07/17 16:49	1
Benzene	ND		2.0		ug/L			11/07/17 16:49	1
DIPE	ND		2.0		ug/L			11/07/17 16:49	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 16:49	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 16:49	1
MTBE	ND		2.0		ug/L			11/07/17 16:49	1
Naphthalene	ND *		4.0		ug/L			11/07/17 16:49	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 16:49	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 16:49	1
Toluene	ND		2.0		ug/L			11/07/17 16:49	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 126		11/07/17 16:49	1
4-Bromofluorobenzene (Surr)	99		75 - 125		11/07/17 16:49	1
Dibromofluoromethane (Surr)	109		77 - 120		11/07/17 16:49	1
Toluene-d8 (Surr)	101		80 - 122		11/07/17 16:49	1
Trifluorotoluene (Surr)	103		80 - 120		11/07/17 16:49	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	4.0		ug/L			11/10/17 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 126		11/10/17 14:48	1
4-Bromofluorobenzene (Surr)	95		75 - 125		11/10/17 14:48	1
Dibromofluoromethane (Surr)	84		77 - 120		11/10/17 14:48	1
Toluene-d8 (Surr)	111		80 - 122		11/10/17 14:48	1
Trifluorotoluene (Surr)	80		80 - 120		11/10/17 14:48	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:31	1
Methanol	ND		10		mg/L			11/01/17 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	105		52 - 128		11/01/17 17:31	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		58 - 133		10/31/17 16:37	1
Trifluorotoluene (Surr)	107		77 - 128		10/31/17 16:37	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.10		mg/L		11/03/17 09:12	11/06/17 19:48	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 19:48	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-07-10/17**

**Date Collected: 10/24/17 15:03**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-4**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	76		50 - 150	11/03/17 09:12	11/06/17 19:48	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-11-10/17**

**Lab Sample ID: 580-72468-5**

**Date Collected: 10/25/17 08:55**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 17:14	1
1,2-DCA	ND		2.0		ug/L			11/07/17 17:14	1
Benzene	ND		2.0		ug/L			11/07/17 17:14	1
DIPE	ND		2.0		ug/L			11/07/17 17:14	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 17:14	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 17:14	1
MTBE	ND		2.0		ug/L			11/07/17 17:14	1
Naphthalene	ND	*	4.0		ug/L			11/07/17 17:14	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 17:14	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 17:14	1
Toluene	ND		2.0		ug/L			11/07/17 17:14	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 17:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 126		11/07/17 17:14	1
4-Bromofluorobenzene (Surr)	98		75 - 125		11/07/17 17:14	1
Dibromofluoromethane (Surr)	102		77 - 120		11/07/17 17:14	1
Toluene-d8 (Surr)	99		80 - 122		11/07/17 17:14	1
Trifluorotoluene (Surr)	101		80 - 120		11/07/17 17:14	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	*	4.0		ug/L			11/08/17 11:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		11/08/17 11:15	1
4-Bromofluorobenzene (Surr)	97		75 - 125		11/08/17 11:15	1
Dibromofluoromethane (Surr)	99		77 - 120		11/08/17 11:15	1
Toluene-d8 (Surr)	99		80 - 122		11/08/17 11:15	1
Trifluorotoluene (Surr)	100		80 - 120		11/08/17 11:15	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:37	1
Methanol	ND		10		mg/L			11/01/17 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	111		52 - 128		11/01/17 17:37	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 17:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		58 - 133		10/31/17 17:09	1
Trifluorotoluene (Surr)	107		77 - 128		10/31/17 17:09	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.36		0.10		mg/L		11/03/17 09:12	11/06/17 20:10	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 20:10	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-11-10/17**

**Date Collected: 10/25/17 08:55**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-5**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	64		50 - 150	11/03/17 09:12	11/06/17 20:10	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-12-10/17**

**Lab Sample ID: 580-72468-6**

**Date Collected: 10/24/17 16:30**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 17:39	1
1,2-DCA	ND		2.0		ug/L			11/07/17 17:39	1
Benzene	ND		2.0		ug/L			11/07/17 17:39	1
DIPE	ND		2.0		ug/L			11/07/17 17:39	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 17:39	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 17:39	1
MTBE	ND		2.0		ug/L			11/07/17 17:39	1
Naphthalene	ND *		4.0		ug/L			11/07/17 17:39	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 17:39	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 17:39	1
Toluene	ND		2.0		ug/L			11/07/17 17:39	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		11/07/17 17:39	1
4-Bromofluorobenzene (Surr)	100		75 - 125		11/07/17 17:39	1
Dibromofluoromethane (Surr)	103		77 - 120		11/07/17 17:39	1
Toluene-d8 (Surr)	103		80 - 122		11/07/17 17:39	1
Trifluorotoluene (Surr)	102		80 - 120		11/07/17 17:39	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	4.0		ug/L			11/10/17 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 126		11/10/17 15:13	1
4-Bromofluorobenzene (Surr)	76		75 - 125		11/10/17 15:13	1
Dibromofluoromethane (Surr)	101		77 - 120		11/10/17 15:13	1
Toluene-d8 (Surr)	113		80 - 122		11/10/17 15:13	1
Trifluorotoluene (Surr)	92		80 - 120		11/10/17 15:13	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:43	1
Methanol	ND		10		mg/L			11/01/17 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	102		52 - 128		11/01/17 17:43	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		58 - 133		10/31/17 18:13	1
Trifluorotoluene (Surr)	106		77 - 128		10/31/17 18:13	1

## Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methane</b>	<b>0.090</b>		0.0050		mg/L			11/02/17 13:06	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-12-10/17**

**Lab Sample ID: 580-72468-6**

**Date Collected: 10/24/17 16:30**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Acetylene (Surr)	79		62 - 124		11/02/17 13:06	1

**Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.16		0.10		mg/L		11/03/17 09:12	11/06/17 20:32	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 20:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	65		50 - 150	11/03/17 09:12	11/06/17 20:32	1

**Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.19		0.020		mg/L		10/31/17 17:34	11/01/17 08:33	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	98		6.0		mg/L			10/31/17 18:45	5

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	270		5.0		mg/L			11/04/17 17:48	1
Bicarbonate Alkalinity as CaCO3	270		5.0		mg/L			11/04/17 17:48	1
Carbonate Alkalinity as CaCO3	ND		5.0		mg/L			11/04/17 17:48	1
Hydroxide Alkalinity as CaCO3	ND		5.0		mg/L			11/04/17 17:48	1

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-12D-10/17**

**Lab Sample ID: 580-72468-7**

**Date Collected: 10/24/17 16:30**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 18:04	1
1,2-DCA	ND		2.0		ug/L			11/07/17 18:04	1
Benzene	ND		2.0		ug/L			11/07/17 18:04	1
DIPE	ND		2.0		ug/L			11/07/17 18:04	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 18:04	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 18:04	1
MTBE	ND		2.0		ug/L			11/07/17 18:04	1
Naphthalene	ND	*	4.0		ug/L			11/07/17 18:04	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 18:04	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 18:04	1
Toluene	ND		2.0		ug/L			11/07/17 18:04	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 18:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		11/07/17 18:04	1
4-Bromofluorobenzene (Surr)	98		75 - 125		11/07/17 18:04	1
Dibromofluoromethane (Surr)	100		77 - 120		11/07/17 18:04	1
Toluene-d8 (Surr)	100		80 - 122		11/07/17 18:04	1
Trifluorotoluene (Surr)	102		80 - 120		11/07/17 18:04	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	4.0		ug/L			11/13/17 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		80 - 126		11/13/17 17:54	1
4-Bromofluorobenzene (Surr)	107		75 - 125		11/13/17 17:54	1
Dibromofluoromethane (Surr)	106		77 - 120		11/13/17 17:54	1
Toluene-d8 (Surr)	112		80 - 122		11/13/17 17:54	1
Trifluorotoluene (Surr)	92		80 - 120		11/13/17 17:54	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:49	1
Methanol	ND		10		mg/L			11/01/17 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	89		52 - 128		11/01/17 17:49	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		58 - 133		10/31/17 18:45	1
Trifluorotoluene (Surr)	105		77 - 128		10/31/17 18:45	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.18		0.10		mg/L		11/03/17 09:12	11/06/17 20:53	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 20:53	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-12D-10/17**

**Date Collected: 10/24/17 16:30**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-7**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	70		50 - 150	11/03/17 09:12	11/06/17 20:53	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-14-10/17**

**Lab Sample ID: 580-72468-8**

**Date Collected: 10/24/17 14:05**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 18:30	1
1,2-DCA	ND		2.0		ug/L			11/07/17 18:30	1
Benzene	ND		2.0		ug/L			11/07/17 18:30	1
DIPE	ND		2.0		ug/L			11/07/17 18:30	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 18:30	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 18:30	1
MTBE	ND		2.0		ug/L			11/07/17 18:30	1
Naphthalene	ND	*	4.0		ug/L			11/07/17 18:30	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 18:30	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 18:30	1
Toluene	ND		2.0		ug/L			11/07/17 18:30	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 126		11/07/17 18:30	1
4-Bromofluorobenzene (Surr)	100		75 - 125		11/07/17 18:30	1
Dibromofluoromethane (Surr)	106		77 - 120		11/07/17 18:30	1
Toluene-d8 (Surr)	99		80 - 122		11/07/17 18:30	1
Trifluorotoluene (Surr)	103		80 - 120		11/07/17 18:30	1

## Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H	4.0		ug/L			11/10/17 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		80 - 126		11/10/17 15:38	1
4-Bromofluorobenzene (Surr)	95		75 - 125		11/10/17 15:38	1
Dibromofluoromethane (Surr)	94		77 - 120		11/10/17 15:38	1
Toluene-d8 (Surr)	113		80 - 122		11/10/17 15:38	1
Trifluorotoluene (Surr)	97		80 - 120		11/10/17 15:38	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 17:55	1
Methanol	ND		10		mg/L			11/01/17 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	103		52 - 128		11/01/17 17:55	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		58 - 133		10/31/17 19:17	1
Trifluorotoluene (Surr)	104		77 - 128		10/31/17 19:17	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.10		mg/L		11/03/17 09:12	11/06/17 21:15	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 21:15	1

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-14-10/17**

**Date Collected: 10/24/17 14:05**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-8**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>o-Terphenyl</i>	79		50 - 150	11/03/17 09:12	11/06/17 21:15	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-EB-10/17**

**Lab Sample ID: 580-72468-9**

**Date Collected: 10/25/17 09:40**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/08/17 07:53	1
1,2-DCA	ND		2.0		ug/L			11/08/17 07:53	1
Benzene	ND		2.0		ug/L			11/08/17 07:53	1
DIPE	ND		2.0		ug/L			11/08/17 07:53	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/08/17 07:53	1
Ethylbenzene	ND		3.0		ug/L			11/08/17 07:53	1
MTBE	ND		2.0		ug/L			11/08/17 07:53	1
Naphthalene	ND *		4.0		ug/L			11/08/17 07:53	1
t-Butyl alcohol	ND		100		ug/L			11/08/17 07:53	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/08/17 07:53	1
Toluene	ND		2.0		ug/L			11/08/17 07:53	1
Xylenes, Total	ND		3.0		ug/L			11/08/17 07:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 126		11/08/17 07:53	1
4-Bromofluorobenzene (Surr)	99		75 - 125		11/08/17 07:53	1
Dibromofluoromethane (Surr)	97		77 - 120		11/08/17 07:53	1
Toluene-d8 (Surr)	99		80 - 122		11/08/17 07:53	1
Trifluorotoluene (Surr)	101		80 - 120		11/08/17 07:53	1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 18:02	1
Methanol	ND		10		mg/L			11/01/17 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	108		52 - 128		11/01/17 18:02	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		58 - 133		10/31/17 19:49	1
Trifluorotoluene (Surr)	106		77 - 128		10/31/17 19:49	1

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	0.13		0.10		mg/L		11/03/17 09:12	11/06/17 21:37	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 21:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150		11/03/17 09:12	11/06/17 21:37

TestAmerica Seattle

# Client Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 580-72468-10**

**Date Collected: 10/25/17 06:00**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/08/17 03:40	1
1,2-DCA	ND		2.0		ug/L			11/08/17 03:40	1
Benzene	ND		2.0		ug/L			11/08/17 03:40	1
DIPE	ND		2.0		ug/L			11/08/17 03:40	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/08/17 03:40	1
Ethylbenzene	ND		3.0		ug/L			11/08/17 03:40	1
MTBE	ND		2.0		ug/L			11/08/17 03:40	1
Naphthalene	ND *		4.0		ug/L			11/08/17 03:40	1
t-Butyl alcohol	ND		100		ug/L			11/08/17 03:40	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/08/17 03:40	1
Toluene	ND		2.0		ug/L			11/08/17 03:40	1
Xylenes, Total	ND		3.0		ug/L			11/08/17 03:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 126		11/08/17 03:40	1
4-Bromofluorobenzene (Surr)	98		75 - 125		11/08/17 03:40	1
Dibromofluoromethane (Surr)	99		77 - 120		11/08/17 03:40	1
Toluene-d8 (Surr)	100		80 - 122		11/08/17 03:40	1
Trifluorotoluene (Surr)	101		80 - 120		11/08/17 03:40	1

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 13:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		58 - 133		10/31/17 13:58	1
Trifluorotoluene (Surr)	107		77 - 128		10/31/17 13:58	1



# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 580-260840/13**  
**Matrix: Water**  
**Analysis Batch: 260840**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/06/17 19:51	1
1,2-DCA	ND		2.0		ug/L			11/06/17 19:51	1
Benzene	ND		2.0		ug/L			11/06/17 19:51	1
DIPE	ND		2.0		ug/L			11/06/17 19:51	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/06/17 19:51	1
Ethylbenzene	ND		3.0		ug/L			11/06/17 19:51	1
MTBE	ND		2.0		ug/L			11/06/17 19:51	1
t-Butyl alcohol	ND		100		ug/L			11/06/17 19:51	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/06/17 19:51	1
Toluene	ND		2.0		ug/L			11/06/17 19:51	1
Xylenes, Total	ND		3.0		ug/L			11/06/17 19:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 126		11/06/17 19:51	1
4-Bromofluorobenzene (Surr)	98		75 - 125		11/06/17 19:51	1
Dibromofluoromethane (Surr)	100		77 - 120		11/06/17 19:51	1
Toluene-d8 (Surr)	101		80 - 122		11/06/17 19:51	1
Trifluorotoluene (Surr)	102		80 - 120		11/06/17 19:51	1

**Lab Sample ID: LCS 580-260840/14**  
**Matrix: Water**  
**Analysis Batch: 260840**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	10.0	9.92		ug/L		99	79 - 120
1,2-DCA	10.0	9.87		ug/L		99	76 - 131
Benzene	10.0	10.4		ug/L		104	75 - 120
DIPE	12.5	12.8		ug/L		102	71 - 124
Ethyl-t-butyl ether (ETBE)	12.5	12.5		ug/L		100	79 - 120
Ethylbenzene	10.0	11.0		ug/L		110	75 - 120
MTBE	10.0	9.77		ug/L		98	79 - 120
m-Xylene & p-Xylene	10.0	10.4		ug/L		104	75 - 120
o-Xylene	10.0	10.6		ug/L		106	74 - 120
t-Butyl alcohol	100	92.8	J	ug/L		93	26 - 150
Tert-amyl methyl ether	12.5	12.7		ug/L		102	75 - 125
Toluene	10.0	10.5		ug/L		105	75 - 120
Xylenes, Total	20.0	21.0		ug/L		105	74 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 126
4-Bromofluorobenzene (Surr)	100		75 - 125
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	100		80 - 122
Trifluorotoluene (Surr)	100		80 - 120

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCSD 580-260840/15**  
**Matrix: Water**  
**Analysis Batch: 260840**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	10.0	9.97		ug/L		100	79 - 120	0	26
1,2-DCA	10.0	9.83		ug/L		98	76 - 131	0	11
Benzene	10.0	10.4		ug/L		104	75 - 120	0	14
DIPE	12.5	13.0		ug/L		104	71 - 124	1	11
Ethyl-t-butyl ether (ETBE)	12.5	12.7		ug/L		102	79 - 120	2	17
Ethylbenzene	10.0	11.2		ug/L		112	75 - 120	2	14
MTBE	10.0	10.0		ug/L		100	79 - 120	3	18
m-Xylene & p-Xylene	10.0	10.7		ug/L		107	75 - 120	3	14
o-Xylene	10.0	10.8		ug/L		108	74 - 120	2	16
t-Butyl alcohol	100	85.9	J	ug/L		86	26 - 150	8	35
Tert-amyl methyl ether	12.5	12.8		ug/L		102	75 - 125	0	16
Toluene	10.0	10.6		ug/L		106	75 - 120	1	13
Xylenes, Total	20.0	21.5		ug/L		108	74 - 120	2	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		80 - 126
4-Bromofluorobenzene (Surr)	100		75 - 125
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	99		80 - 122
Trifluorotoluene (Surr)	100		80 - 120

**Lab Sample ID: MB 580-260864/12**  
**Matrix: Water**  
**Analysis Batch: 260864**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0		ug/L			11/07/17 14:44	1
1,2-DCA	ND		2.0		ug/L			11/07/17 14:44	1
Benzene	ND		2.0		ug/L			11/07/17 14:44	1
DIPE	ND		2.0		ug/L			11/07/17 14:44	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/07/17 14:44	1
Ethylbenzene	ND		3.0		ug/L			11/07/17 14:44	1
MTBE	ND		2.0		ug/L			11/07/17 14:44	1
Naphthalene	ND		4.0		ug/L			11/07/17 14:44	1
t-Butyl alcohol	ND		100		ug/L			11/07/17 14:44	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/07/17 14:44	1
Toluene	ND		2.0		ug/L			11/07/17 14:44	1
Xylenes, Total	ND		3.0		ug/L			11/07/17 14:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 126		11/07/17 14:44	1
4-Bromofluorobenzene (Surr)	99		75 - 125		11/07/17 14:44	1
Dibromofluoromethane (Surr)	99		77 - 120		11/07/17 14:44	1
Toluene-d8 (Surr)	101		80 - 122		11/07/17 14:44	1
Trifluorotoluene (Surr)	103		80 - 120		11/07/17 14:44	1

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 580-260864/13**

**Matrix: Water**

**Analysis Batch: 260864**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	10.0	9.37		ug/L		94	79 - 120
1,2-DCA	10.0	9.52		ug/L		95	76 - 131
Benzene	10.0	9.33		ug/L		93	75 - 120
DIPE	12.5	11.7		ug/L		94	71 - 124
Ethyl-t-butyl ether (ETBE)	12.5	11.8		ug/L		95	79 - 120
Ethylbenzene	10.0	9.69		ug/L		97	75 - 120
MTBE	10.0	9.19		ug/L		92	79 - 120
m-Xylene & p-Xylene	10.0	9.27		ug/L		93	75 - 120
Naphthalene	10.0	10.6		ug/L		106	71 - 126
o-Xylene	10.0	9.53		ug/L		95	74 - 120
t-Butyl alcohol	100	72.0	J	ug/L		72	26 - 150
Tert-amyl methyl ether	12.5	12.1		ug/L		97	75 - 125
Toluene	10.0	9.48		ug/L		95	75 - 120
Xylenes, Total	20.0	18.8		ug/L		94	74 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 126
4-Bromofluorobenzene (Surr)	102		75 - 125
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	99		80 - 122
Trifluorotoluene (Surr)	103		80 - 120

**Lab Sample ID: LCSD 580-260864/14**

**Matrix: Water**

**Analysis Batch: 260864**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	10.0	9.29		ug/L		93	79 - 120	1	26
1,2-DCA	10.0	9.13		ug/L		91	76 - 131	4	11
Benzene	10.0	8.97		ug/L		90	75 - 120	4	14
DIPE	12.5	11.3		ug/L		90	71 - 124	4	11
Ethyl-t-butyl ether (ETBE)	12.5	11.5		ug/L		92	79 - 120	3	17
Ethylbenzene	10.0	9.37		ug/L		94	75 - 120	3	14
MTBE	10.0	8.99		ug/L		90	79 - 120	2	18
m-Xylene & p-Xylene	10.0	8.84		ug/L		88	75 - 120	5	14
Naphthalene	10.0	4.91	*	ug/L		49	71 - 126	73	16
o-Xylene	10.0	9.13		ug/L		91	74 - 120	4	16
t-Butyl alcohol	100	73.8	J	ug/L		74	26 - 150	3	35
Tert-amyl methyl ether	12.5	11.6		ug/L		93	75 - 125	4	16
Toluene	10.0	9.78		ug/L		98	75 - 120	3	13
Xylenes, Total	20.0	18.0		ug/L		90	74 - 120	5	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		80 - 126
4-Bromofluorobenzene (Surr)	99		75 - 125
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	105		80 - 122

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCSD 580-260864/14**  
**Matrix: Water**  
**Analysis Batch: 260864**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Trifluorotoluene (Surr)	105		80 - 120

**Lab Sample ID: MB 580-260932/5**  
**Matrix: Water**  
**Analysis Batch: 260932**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromoethane	ND		2.0		ug/L			11/08/17 02:01	1
1,2-DCA	ND		2.0		ug/L			11/08/17 02:01	1
Benzene	ND		2.0		ug/L			11/08/17 02:01	1
DIPE	ND		2.0		ug/L			11/08/17 02:01	1
Ethyl-t-butyl ether (ETBE)	ND		6.0		ug/L			11/08/17 02:01	1
Ethylbenzene	ND		3.0		ug/L			11/08/17 02:01	1
MTBE	ND		2.0		ug/L			11/08/17 02:01	1
Naphthalene	ND		4.0		ug/L			11/08/17 02:01	1
t-Butyl alcohol	ND		100		ug/L			11/08/17 02:01	1
Tert-amyl methyl ether	ND		6.0		ug/L			11/08/17 02:01	1
Toluene	ND		2.0		ug/L			11/08/17 02:01	1
Xylenes, Total	ND		3.0		ug/L			11/08/17 02:01	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	97		80 - 126		11/08/17 02:01	1
4-Bromofluorobenzene (Surr)	99		75 - 125		11/08/17 02:01	1
Dibromofluoromethane (Surr)	100		77 - 120		11/08/17 02:01	1
Toluene-d8 (Surr)	99		80 - 122		11/08/17 02:01	1
Trifluorotoluene (Surr)	100		80 - 120		11/08/17 02:01	1

**Lab Sample ID: LCS 580-260932/6**  
**Matrix: Water**  
**Analysis Batch: 260932**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,2-Dibromoethane	10.0	9.39		ug/L		94	79 - 120
1,2-DCA	10.0	9.28		ug/L		93	76 - 131
Benzene	10.0	10.0		ug/L		100	75 - 120
DIPE	12.5	12.3		ug/L		98	71 - 124
Ethyl-t-butyl ether (ETBE)	12.5	12.0		ug/L		96	79 - 120
Ethylbenzene	10.0	9.90		ug/L		99	75 - 120
MTBE	10.0	9.59		ug/L		96	79 - 120
m-Xylene & p-Xylene	10.0	9.85		ug/L		99	75 - 120
Naphthalene	10.0	5.67	*	ug/L		57	71 - 126
o-Xylene	10.0	10.1		ug/L		101	74 - 120
t-Butyl alcohol	100	103		ug/L		103	26 - 150
Tert-amyl methyl ether	12.5	12.7		ug/L		102	75 - 125
Toluene	10.0	9.44		ug/L		94	75 - 120
Xylenes, Total	20.0	20.0		ug/L		100	74 - 120

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 580-260932/6**  
**Matrix: Water**  
**Analysis Batch: 260932**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		80 - 126
4-Bromofluorobenzene (Surr)	99		75 - 125
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	98		80 - 122
Trifluorotoluene (Surr)	99		80 - 120

**Lab Sample ID: LCSD 580-260932/7**  
**Matrix: Water**  
**Analysis Batch: 260932**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	10.0	9.58		ug/L		96	79 - 120	2	26
1,2-DCA	10.0	9.44		ug/L		94	76 - 131	2	11
Benzene	10.0	10.7		ug/L		107	75 - 120	6	14
DIPE	12.5	13.0		ug/L		104	71 - 124	6	11
Ethyl-t-butyl ether (ETBE)	12.5	12.3		ug/L		98	79 - 120	2	17
Ethylbenzene	10.0	10.4		ug/L		104	75 - 120	5	14
MTBE	10.0	9.88		ug/L		99	79 - 120	3	18
m-Xylene & p-Xylene	10.0	10.2		ug/L		102	75 - 120	4	14
Naphthalene	10.0	7.29	*	ug/L		73	71 - 126	25	16
o-Xylene	10.0	10.3		ug/L		103	74 - 120	3	16
t-Butyl alcohol	100	98.8	J	ug/L		99	26 - 150	4	35
Tert-amyl methyl ether	12.5	13.0		ug/L		104	75 - 125	2	16
Toluene	10.0	10.0		ug/L		100	75 - 120	6	13
Xylenes, Total	20.0	20.5		ug/L		103	74 - 120	3	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		80 - 126
4-Bromofluorobenzene (Surr)	98		75 - 125
Dibromofluoromethane (Surr)	98		77 - 120
Toluene-d8 (Surr)	99		80 - 122
Trifluorotoluene (Surr)	99		80 - 120

**Lab Sample ID: MB 580-261118/5**  
**Matrix: Water**  
**Analysis Batch: 261118**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		4.0		ug/L			11/10/17 10:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		80 - 126		11/10/17 10:37	1
4-Bromofluorobenzene (Surr)	96		75 - 125		11/10/17 10:37	1
Dibromofluoromethane (Surr)	75	X	77 - 120		11/10/17 10:37	1
Toluene-d8 (Surr)	112		80 - 122		11/10/17 10:37	1
Trifluorotoluene (Surr)	90		80 - 120		11/10/17 10:37	1

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 580-261118/6**

**Matrix: Water**

**Analysis Batch: 261118**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	10.0	11.4		ug/L		114	71 - 126
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)		103		80 - 126			
4-Bromofluorobenzene (Surr)		96		75 - 125			
Dibromofluoromethane (Surr)		101		77 - 120			
Toluene-d8 (Surr)		112		80 - 122			
Trifluorotoluene (Surr)		91		80 - 120			

**Lab Sample ID: LCSD 580-261118/7**

**Matrix: Water**

**Analysis Batch: 261118**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	10.0	12.2		ug/L		122	71 - 126	7	16
Surrogate		LCSD %Recovery	LCSD Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)		104		80 - 126					
4-Bromofluorobenzene (Surr)		95		75 - 125					
Dibromofluoromethane (Surr)		100		77 - 120					
Toluene-d8 (Surr)		110		80 - 122					
Trifluorotoluene (Surr)		92		80 - 120					

**Lab Sample ID: MB 580-261210/5**

**Matrix: Water**

**Analysis Batch: 261210**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		4.0		ug/L			11/13/17 16:38	1
Surrogate		MB %Recovery	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)		91		80 - 126			11/13/17 16:38	1	
4-Bromofluorobenzene (Surr)		112		75 - 125			11/13/17 16:38	1	
Dibromofluoromethane (Surr)		108		77 - 120			11/13/17 16:38	1	
Toluene-d8 (Surr)		109		80 - 122			11/13/17 16:38	1	
Trifluorotoluene (Surr)		94		80 - 120			11/13/17 16:38	1	

**Lab Sample ID: LCS 580-261210/6**

**Matrix: Water**

**Analysis Batch: 261210**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	10.0	11.9		ug/L		119	71 - 126
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
1,2-Dichloroethane-d4 (Surr)		90		80 - 126			
4-Bromofluorobenzene (Surr)		109		75 - 125			

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 580-261210/6**  
**Matrix: Water**  
**Analysis Batch: 261210**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	102		77 - 120
Toluene-d8 (Surr)	110		80 - 122
Trifluorotoluene (Surr)	96		80 - 120

**Lab Sample ID: LCSD 580-261210/7**  
**Matrix: Water**  
**Analysis Batch: 261210**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	10.0	11.7		ug/L		117	71 - 126	2	16

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	92		80 - 126
4-Bromofluorobenzene (Surr)	118		75 - 125
Dibromofluoromethane (Surr)	110		77 - 120
Toluene-d8 (Surr)	116		80 - 122
Trifluorotoluene (Surr)	98		80 - 120

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection)

**Lab Sample ID: MB 490-472571/14**  
**Matrix: Water**  
**Analysis Batch: 472571**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/01/17 16:49	1
Methanol	ND		10		mg/L			11/01/17 16:49	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Isopropyl acetate (Surr)	100		52 - 128		11/01/17 16:49	1

**Lab Sample ID: LCS 490-472571/15**  
**Matrix: Water**  
**Analysis Batch: 472571**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Ethanol	50.2	49.0		mg/L		98	70 - 130
Methanol	50.2	48.8		mg/L		97	70 - 130

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Isopropyl acetate (Surr)	86		52 - 128

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 8015C - Nonhalogenated Organic using GC/FID (Direct Aqueous Injection) (Continued)

**Lab Sample ID: 580-72468-1 MS**

**Matrix: Water**

**Analysis Batch: 472571**

**Client Sample ID: C-MW-02-10/17**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	ND		50.2	50.7		mg/L		101	65 - 130
Methanol	ND		50.2	51.1		mg/L		102	64 - 138
<b>Surrogate</b>		<b>MS %Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>					
Isopropyl acetate (Surr)		93		52 - 128					

**Lab Sample ID: 580-72468-1 MSD**

**Matrix: Water**

**Analysis Batch: 472571**

**Client Sample ID: C-MW-02-10/17**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethanol	ND		50.2	50.4		mg/L		100	65 - 130	1	11
Methanol	ND		50.2	50.0		mg/L		100	64 - 138	2	21
<b>Surrogate</b>		<b>MSD %Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>							
Isopropyl acetate (Surr)		102		52 - 128							

## Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-260299/6**

**Matrix: Water**

**Analysis Batch: 260299**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.25		mg/L			10/31/17 12:22	1
<b>Surrogate</b>		<b>MB %Recovery</b>	<b>MB Qualifier</b>	<b>Limits</b>		<b>Prepared</b>		<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		90		58 - 133				10/31/17 12:22	1
Trifluorotoluene (Surr)		104		77 - 128				10/31/17 12:22	1

**Lab Sample ID: LCS 580-260299/7**

**Matrix: Water**

**Analysis Batch: 260299**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline	1.00	0.885		mg/L		88	79 - 110
<b>Surrogate</b>		<b>LCS %Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>			
4-Bromofluorobenzene (Surr)		98		58 - 133			
Trifluorotoluene (Surr)		103		77 - 128			

**Lab Sample ID: LCSD 580-260299/8**

**Matrix: Water**

**Analysis Batch: 260299**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline	1.00	0.882		mg/L		88	79 - 110	0	10

TestAmerica Seattle



# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		58 - 133
Trifluorotoluene (Surr)	102		77 - 128

## Method: RSK-175 - Dissolved Gases (GC)

**Lab Sample ID: MB 490-472501/5**  
**Matrix: Water**  
**Analysis Batch: 472501**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methane	ND		0.0050		mg/L			11/01/17 10:54	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier								
Acetylene (Surr)	87		62 - 124				11/01/17 10:54	1	

**Lab Sample ID: LCS 490-472501/6**  
**Matrix: Water**  
**Analysis Batch: 472501**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
								Methane
Surrogate	LCS LCS		Limits			Prepared	Analyzed	Dil Fac
%Recovery	Qualifier							
Acetylene (Surr)	87		62 - 124					

**Lab Sample ID: LCSD 490-472501/7**  
**Matrix: Water**  
**Analysis Batch: 472501**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Surrogate	LCSD LCSD		Limits			Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier								
Acetylene (Surr)	85		62 - 124						

**Lab Sample ID: MB 490-472824/5**  
**Matrix: Water**  
**Analysis Batch: 472824**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methane	ND		0.0050		mg/L			11/02/17 11:34	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
%Recovery	Qualifier								
Acetylene (Surr)	87		62 - 124				11/02/17 11:34	1	

**Lab Sample ID: LCS 490-472824/6**  
**Matrix: Water**  
**Analysis Batch: 472824**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: RSK-175 - Dissolved Gases (GC) (Continued)

**Lab Sample ID: LCS 490-472824/6**  
**Matrix: Water**  
**Analysis Batch: 472824**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Acetylene (Surr)	87		62 - 124

## Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

**Lab Sample ID: MB 580-260630/1-A**  
**Matrix: Water**  
**Analysis Batch: 260733**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 260630**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.10		mg/L		11/03/17 09:12	11/06/17 15:47	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		11/03/17 09:12	11/06/17 15:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	79		50 - 150	11/03/17 09:12	11/06/17 15:47	1

**Lab Sample ID: LCS 580-260630/2-A**  
**Matrix: Water**  
**Analysis Batch: 260733**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 260630**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
#2 Diesel (C10-C24)	2.00	1.47		mg/L		74	59 - 112
Motor Oil (>C24-C36)	2.00	1.63		mg/L		82	64 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	86		50 - 150

**Lab Sample ID: LCSD 580-260630/3-A**  
**Matrix: Water**  
**Analysis Batch: 260733**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 260630**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
#2 Diesel (C10-C24)	2.00	1.51		mg/L		75	59 - 112	3	16
Motor Oil (>C24-C36)	2.00	1.71		mg/L		86	64 - 120	5	17

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	90		50 - 150

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: LCS 580-260392/13-A**  
**Matrix: Water**  
**Analysis Batch: 260476**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 260392**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Manganese	0.100	0.0962		mg/L		96	85 - 115

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 580-260392/14-A**  
**Matrix: Water**  
**Analysis Batch: 260476**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 260392**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese	0.100	0.0986		mg/L		99	85 - 115	2	20

**Lab Sample ID: MB 580-260257/4-B**  
**Matrix: Water**  
**Analysis Batch: 260476**

**Client Sample ID: Method Blank**  
**Prep Type: Dissolved**  
**Prep Batch: 260392**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.020		mg/L		10/31/17 17:34	11/01/17 07:50	1

**Lab Sample ID: 580-72468-1 MS**  
**Matrix: Water**  
**Analysis Batch: 260476**

**Client Sample ID: C-MW-02-10/17**  
**Prep Type: Dissolved**  
**Prep Batch: 260392**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Manganese	ND		0.100	0.102		mg/L		94	70 - 130

**Lab Sample ID: 580-72468-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 260476**

**Client Sample ID: C-MW-02-10/17**  
**Prep Type: Dissolved**  
**Prep Batch: 260392**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Manganese	ND		0.100	0.0980		mg/L		90	70 - 130	4	20

**Lab Sample ID: 580-72468-1 DU**  
**Matrix: Water**  
**Analysis Batch: 260476**

**Client Sample ID: C-MW-02-10/17**  
**Prep Type: Dissolved**  
**Prep Batch: 260392**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Manganese	ND		ND		mg/L		NC	20

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 580-260646/3**  
**Matrix: Water**  
**Analysis Batch: 260646**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.2		mg/L			10/31/17 12:49	1

**Lab Sample ID: LCS 580-260646/4**  
**Matrix: Water**  
**Analysis Batch: 260646**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Sulfate	50.0	51.4		mg/L		103	90 - 110

TestAmerica Seattle

# QC Sample Results

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 580-72468-1 MS**  
**Matrix: Water**  
**Analysis Batch: 260646**

**Client Sample ID: C-MW-02-10/17**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	110	F1	50.0	152	F1	mg/L		78	90 - 110

**Lab Sample ID: 580-72468-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 260646**

**Client Sample ID: C-MW-02-10/17**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	110	F1	50.0	156	F1	mg/L		85	90 - 110	2	15

## Method: SM 2320B - Alkalinity

**Lab Sample ID: LCS 580-260719/2**  
**Matrix: Water**  
**Analysis Batch: 260719**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	99.9		mg/L		100	85 - 115

# Lab Chronicle

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-02-10/17**

**Date Collected: 10/24/17 12:10**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260840	11/07/17 02:29	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	261118	11/10/17 13:57	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:01	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 15:01	TL1	TAL SEA
Total/NA	Analysis	RSK-175		1	472824	11/02/17 12:59	AAB	TAL NSH
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 18:20	JCP	TAL SEA
Dissolved	Filtration	FILTRATION			260257	10/30/17 13:35	ASJ	TAL SEA
Dissolved	Prep	200.7			260392	10/31/17 17:34	PAB	TAL SEA
Dissolved	Analysis	200.7 Rev 4.4		1	260476	11/01/17 08:00	SPP	TAL SEA
Total/NA	Analysis	300.0		5	260646	10/31/17 18:33	MMM	TAL SEA
Total/NA	Analysis	SM 2320B		1	260719	11/04/17 17:47	EMM	TAL SEA

**Client Sample ID: C-MW-03-10/17**

**Date Collected: 10/25/17 10:30**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260864	11/07/17 16:24	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	260932	11/08/17 10:49	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:19	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 15:33	TL1	TAL SEA
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 18:42	JCP	TAL SEA

**Client Sample ID: C-MW-06-10/17**

**Date Collected: 10/23/17 10:35**

**Date Received: 10/27/17 15:43**

**Lab Sample ID: 580-72468-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260840	11/06/17 22:20	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	261118	11/10/17 14:22	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:25	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 16:05	TL1	TAL SEA
Total/NA	Analysis	RSK-175		1	472501	11/01/17 12:33	AAB	TAL NSH
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 19:04	JCP	TAL SEA
Dissolved	Filtration	FILTRATION			260257	10/30/17 13:35	ASJ	TAL SEA
Dissolved	Prep	200.7			260392	10/31/17 17:34	PAB	TAL SEA
Dissolved	Analysis	200.7 Rev 4.4		1	260476	11/01/17 08:30	SPP	TAL SEA
Total/NA	Analysis	300.0		1	260646	10/31/17 13:59	MMM	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Client Sample ID: C-MW-06-10/17**

**Lab Sample ID: 580-72468-3**

**Date Collected: 10/23/17 10:35**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	260719	11/04/17 17:48	EMM	TAL SEA

**Client Sample ID: C-MW-07-10/17**

**Lab Sample ID: 580-72468-4**

**Date Collected: 10/24/17 15:03**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260864	11/07/17 16:49	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	261118	11/10/17 14:48	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:31	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 16:37	TL1	TAL SEA
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 19:48	JCP	TAL SEA

**Client Sample ID: C-MW-11-10/17**

**Lab Sample ID: 580-72468-5**

**Date Collected: 10/25/17 08:55**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260864	11/07/17 17:14	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	260932	11/08/17 11:15	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:37	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 17:09	TL1	TAL SEA
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 20:10	JCP	TAL SEA

**Client Sample ID: C-MW-12-10/17**

**Lab Sample ID: 580-72468-6**

**Date Collected: 10/24/17 16:30**

**Matrix: Water**

**Date Received: 10/27/17 15:43**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260864	11/07/17 17:39	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	261118	11/10/17 15:13	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:43	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 18:13	TL1	TAL SEA
Total/NA	Analysis	RSK-175		1	472824	11/02/17 13:06	AAB	TAL NSH
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 20:32	JCP	TAL SEA
Dissolved	Filtration	FILTRATION			260257	10/30/17 13:35	ASJ	TAL SEA
Dissolved	Prep	200.7			260392	10/31/17 17:34	PAB	TAL SEA
Dissolved	Analysis	200.7 Rev 4.4		1	260476	11/01/17 08:33	SPP	TAL SEA
Total/NA	Analysis	300.0		5	260646	10/31/17 18:45	MMM	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	260719	11/04/17 17:48	EMM	TAL SEA

**Client Sample ID: C-MW-12D-10/17**

**Lab Sample ID: 580-72468-7**

Date Collected: 10/24/17 16:30

Matrix: Water

Date Received: 10/27/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260864	11/07/17 18:04	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	261210	11/13/17 17:54	T1W	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:49	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 18:45	TL1	TAL SEA
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 20:53	JCP	TAL SEA

**Client Sample ID: C-MW-14-10/17**

**Lab Sample ID: 580-72468-8**

Date Collected: 10/24/17 14:05

Matrix: Water

Date Received: 10/27/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260864	11/07/17 18:30	IWH	TAL SEA
Total/NA	Analysis	8260C	RA	1	261118	11/10/17 15:38	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 17:55	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 19:17	TL1	TAL SEA
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 21:15	JCP	TAL SEA

**Client Sample ID: C-EB-10/17**

**Lab Sample ID: 580-72468-9**

Date Collected: 10/25/17 09:40

Matrix: Water

Date Received: 10/27/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260932	11/08/17 07:53	IWH	TAL SEA
Total/NA	Analysis	8015C		1	472571	11/01/17 18:02	MH	TAL NSH
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 19:49	TL1	TAL SEA
Total/NA	Prep	3510C			260630	11/03/17 09:12	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	260733	11/06/17 21:37	JCP	TAL SEA

**Client Sample ID: Trip Blank**

**Lab Sample ID: 580-72468-10**

Date Collected: 10/25/17 06:00

Matrix: Water

Date Received: 10/27/17 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	260932	11/08/17 03:40	IWH	TAL SEA
Total/NA	Analysis	NWTPH-Gx		1	260299	10/31/17 13:58	TL1	TAL SEA

TestAmerica Seattle

# Lab Chronicle

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11



# Accreditation/Certification Summary

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Laboratory: TestAmerica Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C553	02-17-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	t-Butyl alcohol
8260C		Water	Xylenes, Total
SM 2320B		Water	Hydroxide Alkalinity as CaCO3

## Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17
A2LA	ISO/IEC 17025		0453.07	12-31-17
Alaska (UST)	State Program	10	UST-087	01-01-18
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FI)/453.07(A2L A)	12-31-17
Illinois	NELAP	5	200010	12-09-17
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	12-31-17
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18

# Accreditation/Certification Summary

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

TestAmerica Job ID: 580-72468-1

## Laboratory: TestAmerica Nashville (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-17



# Sample Summary

Client: CEECON Testing, Inc.  
Project/Site: Tesoro Pasco

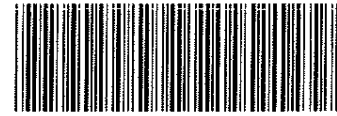
TestAmerica Job ID: 580-72468-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-72468-1	C-MW-02-10/17	Water	10/24/17 12:10	10/27/17 15:43
580-72468-2	C-MW-03-10/17	Water	10/25/17 10:30	10/27/17 15:43
580-72468-3	C-MW-06-10/17	Water	10/23/17 10:35	10/27/17 15:43
580-72468-4	C-MW-07-10/17	Water	10/24/17 15:03	10/27/17 15:43
580-72468-5	C-MW-11-10/17	Water	10/25/17 08:55	10/27/17 15:43
580-72468-6	C-MW-12-10/17	Water	10/24/17 16:30	10/27/17 15:43
580-72468-7	C-MW-12D-10/17	Water	10/24/17 16:30	10/27/17 15:43
580-72468-8	C-MW-14-10/17	Water	10/24/17 14:05	10/27/17 15:43
580-72468-9	C-EB-10/17	Water	10/25/17 09:40	10/27/17 15:43
580-72468-10	Trip Blank	Water	10/25/17 06:00	10/27/17 15:43

**TestAmerica Seattle**

5755 8th Street East  
Tacoma, WA 98424  
Phone (253) 922-2310 Fax (253) 922-5047

**Chain of Custody Record**



580-72468 Chain of Custody

**TestAmerica**

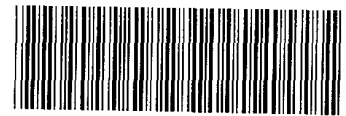
THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Sampler: <u>Reed</u>		Lab PM: Cruz, Sheri L		COC No: 580-22636-7530.1																					
Client Contact: Michael Hodges		Phone: <u>4151359-6453</u>		E-Mail: sheri.cruz@testamericainc.com		Page: 1 of 1																					
Company: CEECON Testing, Inc.		Due Date Requested:		<b>Analysis Requested</b>		Job #: <u>72468</u>																					
Address: 434 North Canal Street Suite Six		TAT Requested (days):		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>NWTPH-Dx</td> <td>8015C_DAI - Ethanol, Methanol</td> <td>8280C, (BTEX, MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, 1,2-EDB, Naphth)</td> <td>NWTPH_Gx</td> <td>300.0 Sulfate</td> <td>200.7_CWA - Diss Manganese(Lab Filter)</td> <td>RSK_175-Methane</td> <td>2320B, Alkalinity</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Dx	8015C_DAI - Ethanol, Methanol	8280C, (BTEX, MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, 1,2-EDB, Naphth)	NWTPH_Gx	300.0 Sulfate	200.7_CWA - Diss Manganese(Lab Filter)	RSK_175-Methane	2320B, Alkalinity											Preservation Codes:	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH-Dx	8015C_DAI - Ethanol, Methanol			8280C, (BTEX, MTBE, DIPE, ETBE, TAME, TBA, 1,2-DCA, 1,2-EDB, Naphth)	NWTPH_Gx	300.0 Sulfate	200.7_CWA - Diss Manganese(Lab Filter)	RSK_175-Methane	2320B, Alkalinity																
City: South San Francisco		PO #:				A - HCL		M - Hexane																			
State, Zip: CA, 94080		WO #:				B - NaOH		N - None																			
Phone: 253-896-8708(Tel)		Project #: 58010386		C - Zn Acetate		O - AsNaO2																					
Email: ceecon@msn.com		SSOW#:		D - Nitric Acid		P - Na2O4S																					
Project Name: Tesoro Pasco		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Total Number of containers		Other:															
Site: Washington		Preservation Code:		X		X		X		X		Special Instructions/Note:															
Sample Identification		C-MW-02-10/17		10/24/17 12:10		Water		X		X		X															
		C-MW-03-10/17		10/25/17 10:30		Water		X		X																	
		C-MW-06-10/17		10/23/17 10:35		Water		X		X		X															
		C-MW-07-10/17		10/24/17 3:03		Water		X		X		X															
		C-MW-11-10/17		10/25/17 8:55		Water		X		X		X															
		C-MW-12-10/17		10/24/17 4:30		Water		X		X		X															
		C-MW-12D-10/17		10/24/17 4:30		Water		X		X		X															
		C-MW-14-10/17		10/24/17 2:05		Water		X		X		X															
		C-EB-10/17		10/25/17 9:40		Water		X		X		X															
		Trip Blank		10/25/17 6:00		Water		X		X		X															
<b>Possible Hazard Identification</b>				<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>																							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																							
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:																							
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																					
Relinquished by: <u>Michael Hodges</u>		Date/Time: 10/27/17 3:43 pm		Company: CEECON		Received by: <u>Tom Blunt</u>		Date/Time: 10/27/17 1543		Company: TA-Soc																	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:																	
Custody Seals Intact: △ Yes △ No		Custody Seal No.:		Page 43 of 47				Cooler Temperature(s) °C and Other Remarks:																			

Therm. ID A2 Cor 04 Unc 0.3  
Cooler Dsc La Blue @Lab  
Wet/Packs Packing bub  
Custody Seal: Yes No

Therm. ID A2 Cor 1.7 Unc 2.4  
Cooler Dsc La Blue @Lab  
Wet/Packs Packing bub  
clido Custody Seal: Yes No

1  
2  
3  
4  
5  
6  
7  
8  
9  
10



## COOLER RECEIPT FORM

Time Samples Removed From Cooler \_\_\_\_\_ Time Samples Placed In Storage \_\_\_\_\_ (2 Hour Window)

1. Tracking # 3586 (last 4 digits, FedEx) Courier: FedEx \_\_\_\_\_  
IR Gun ID 31470366 pH Strip Lot \_\_\_\_\_ Chlorine Strip Lot \_\_\_\_\_

2. Temperature of rep. sample or temp blank when opened: 0.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) BA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO..NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) es

I certify that I attached a label with the unique LIMS number to each container (initial) es

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..# es

**TestAmerica Seattle**

5755 8th Street East  
Tacoma, WA 98424  
Phone (253) 922-2310 Fax (253) 922-5047

**Chain of Custody Record**

**580-72468**

**stAmerica**  
ADDER IN ENVIRONMENTAL TESTING

<b>Client Information (Sub Contract Lab)</b> Client Contact: <u>Shipping/Receiving</u> Company: <u>TestAmerica Laboratories, Inc</u> Address: <u>2960 Foster Creighton Drive,</u> City: <u>Nashville</u> State, Zip: <u>TN, 37204</u> Phone: <u>615-726-0177(Tel) 615-726-3404(Fax)</u> Email: _____ Project Name: <u>Tesoro Pasco</u> Site: <u>Tesoro - Pasco/Burbank</u>		Lab P#: _____ Cruz, Sheri L E-Mail: <u>sheril.cruz@testamericainc.com</u> Phone: _____ State Program - Washington
Due Date Requested: <u>11/9/2017</u> TAT Requested (days): _____ PO #: _____ WO #: _____ Project #: <u>58010386</u> SSOW#: _____	Accreditations Required (See note): State Program - Washington	Page: <u>325.1</u> Page 1 of 1 Job #: <u>580-72468-1</u>
<b>Analysis Requested</b>		
Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/>	RSK 175/ Methane	Total Number of Containers: <u>6</u>
Preservation Code: <u>12:10 Pacific</u>	Matrix: <u>Water</u>	Special Instructions/Note: _____
Sample Date: <u>10/24/17</u>	Sample Time: <u>12:10 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/25/17</u>	Sample Time: <u>10:30 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/23/17</u>	Sample Time: <u>10:35 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/24/17</u>	Sample Time: <u>15:03 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/25/17</u>	Sample Time: <u>08:55 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/24/17</u>	Sample Time: <u>16:30 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/24/17</u>	Sample Time: <u>16:30 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/24/17</u>	Sample Time: <u>14:05 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Sample Date: <u>10/24/17</u>	Sample Time: <u>09:40 Pacific</u>	Sample Type (C=Comp, G=grab): <u>Water</u>
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.		
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: <u>I, II, III, IV, Other (specify)</u>		
Special Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Primary Deliverable Rank: <u>2</u>		
Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____		
Relinquished by: <u>Tom Blanks</u> Date/Time: <u>10/30/17</u> Company: <u>TA-Sea</u>		
Relinquished by: _____ Date/Time: _____ Company: _____		
Relinquished by: _____ Date/Time: _____ Company: _____		
Custody Seals Intact: <u>0.9</u> Δ Yes Δ No		

## Login Sample Receipt Checklist

Client: CEECON Testing, Inc.

Job Number: 580-72468-1

**Login Number: 72468**

**List Source: TestAmerica Seattle**

**List Number: 1**

**Creator: Blankinship, Tom X**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Login Sample Receipt Checklist

Client: CEECON Testing, Inc.

Job Number: 580-72468-1

**Login Number: 72468**  
**List Number: 2**  
**Creator: Stewart, Eric S**

**List Source: TestAmerica Nashville**  
**List Creation: 10/31/17 02:48 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	