



SUBSURFACE INVESTIGATION REPORT September 1, 2006

**Former Bulk Fuel Facility
West Fir Street
Mount Vernon, Washington 98273**

INTRODUCTION

This Subsurface Investigation Report presents the results of soil and groundwater sampling conducted on May 25, 2006 at the above-referenced property (herein referred to as the property) (Figure 1). Significant property features are illustrated in Figures 2 and 3.

The work described herein is supplemental to a limited historical review of the property, which revealed that it had historically been used as a bulk fuel storage facility that was equipped with several above-ground bulk fuel storage tanks. In August and October 2005, SES initiated a subsurface investigation on the property. Soil borings were advanced on the property and adjacent rights-of-way (ROWs), and several of the borings were completed as monitoring wells. The results of that investigation revealed the presence of petroleum-contaminated soil and groundwater beneath the property. Prior to the current investigation, the property was included within a larger parcel that encompassed the operational retail gasoline station located adjacent to the west (Tesoro Station #62159). However, considering the distinct differences in the type and ages of the release(s) that have occurred on the property and those that have occurred on the retail gasoline station property to the east, the two properties will be addressed in separate reports.

Investigation Objectives

The primary objectives of the subsurface investigation activities were to further evaluate the extent of on-property impacts to soil and groundwater from the former bulk fuel storage facility. This Subsurface Investigation Report includes the following:

- Provides background information, including a description of the property and surrounding land use;
- Describes the investigation activities;
- Summarizes the subsurface investigation results summary; and
- Provides conclusions and a list of supporting figures and appendices attached to this report.

SUMMARY RESULTS OF THE SUBSURFACE INVESTIGATION

The following is a summary of the subsurface conditions and the nature and extent of chemicals of concern (COCs) at the property. Additional details are provided in later sections of this report.

Stratigraphy: The property is underlain by Holocene fluvial deposits consisting of medium to dense gravelly silt underlain by dense, silty, sandy gravel to the maximum depth explored of 15 feet below ground surface (bgs).

Hydrogeology: The borings (B-15 [MW-15] and B-16 [MW-16]) installed during the most recent phase of investigation intersected a distinct water-bearing zone at 9.5 feet bgs, and groundwater stabilized at depths of approximately 9.5 to 10.5 feet bgs. The monitoring wells are screened from 5 to 15 feet bgs. Topographically, the property is relatively level and is situated at an elevation of approximately 32 feet above sea level. Based on depth to water measurements collected from the wells installed on the property, shallow-seated groundwater appears to flow toward the northwest.

Chemicals of concern: Concentrations of COCs in soil and groundwater are included on Figure 3 and are summarized below.

Summary of Analytical Results

Analytical Method	COCs	COC Concentrations in Soil (mg/kg)		COC Concentrations in Groundwater (µg/L)	
		Minimum	Maximum	Minimum	Maximum
NWTPH-Gx	GRPH	ND	ND	ND	1,870 (MW-05)
NWTPH-Dx	DRPH	ND	ND	ND	1,410 (MW-05)
	ORPH	ND	ND	ND	1,220 (MW-06)
EPA Method 8021B	Benzene	ND	ND	ND	75.3 (MW-05)
	Toluene	ND	ND	ND	8.75 (MW-05)
	Ethylbenzene	ND	ND	ND	7.32 (MW-05)
	Total Xylenes	ND	ND	ND	16.5 (MW-05)
EPA Method 8021B	Naphthalene	ND	ND	ND	ND
EPA Method 8270-SIM	PAHs	ND	ND	--	--
EPA Method 6020	Lead	2.77 (B-15-9.5)	3.46 (B-16-9)	--	--

NOTES:

RED BOLD text signifies a concentration that exceeds its respective MTCA Method A Cleanup Level.

-- = not analyzed

µg/L = micrograms per liter

DRPH = diesel-range petroleum hydrocarbons

EPA = United States Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Model Toxics Control Act

mg/kg = milligrams per kilogram

ND = non detect

ORPH = oil-Range Petroleum Hydrocarbons

PAHs = polynuclear Aromatic Hydrocarbons

Media of Concern: Soil and groundwater.

Extent of Contamination: None of the soil samples collected from the borings advanced on the property during the current phase of investigation contained concentrations of COCs in excess of their respective Washington State Model Toxics Control Act Method A Cleanup Levels (cleanup levels). However, soil contamination has been encountered beneath much of the property during previous phases of the investigation. Elevated concentrations of GRPH and/or benzene have been detected at depths of six to twelve feet bgs in borings advanced on the southern portion of the property and elevated DRPH concentrations have been detected in soil collected at similar depths from borings advanced on the southwestern portion of the property. One of the soil samples collected from a boring advanced on the northeastern portion of the property at a depth of 6.5 feet bgs contained a concentration of ORPH that exceeded the cleanup level.

Concentrations of DRPH and/or ORPH in excess of their respective cleanup levels were encountered in groundwater collected from monitoring wells MW-05, MW-06, MW-15, and MW-16 during the most recent groundwater sampling event. Historically, elevated concentrations of DRPH have been detected in groundwater samples collected from monitoring wells located throughout most of the property. ORPH concentrations have exceeded the cleanup level in groundwater collected from several of the wells on the property, with the highest concentrations detected in MW-06, located on the southeastern portion of the property. GRPH and benzene have only been detected in groundwater collected from MW-05, located along the western margin of the property.

Nature of Release: The source of COCs in soil and groundwater is attributed to the historic use of the property as a bulk fuel storage facility. Considering the relatively low concentrations of BTEX constituents detected in soil and groundwater throughout most of the property, the petroleum release appears aged.

PROPERTY LOCATION AND DESCRIPTION

The property consists of the western half of an irregularly shaped tax parcel that covers a total of approximately 33,105 square feet (0.76 acres) of land. An active Tesoro gasoline service station operates on the eastern half of the parcel. The Blueprint Company occupies a small office building to the north of the property. The land located across West Fir Street to the south is occupied by Lyndale Glass. Burlington Northern Railroad tracks are situated adjacent to the west of the parcel.

PROJECT BACKGROUND

According to information provided to SES, Tesoro purchased the property from Gull Industries in late 2001. During 2005 excavation activities conducted at the retail gasoline service station adjacent to the property, what appeared to be several product lines were noted extending an unknown distance westward beneath the convenience store. Upon discovering the product lines, SES conducted a limited historical review of the tax parcel that revealed that the property had historically been used as a bulk fuel storage facility and was equipped with several above-ground bulk fuel storage tanks.

In August and October 2005, SES initiated limited subsurface investigations of the property and the operational retail gasoline station property located adjacent to the east in an effort to

evaluate the potential subsurface impacts from their former use as a bulk fuel facility and retail gasoline station, respectively. Soil borings were advanced using direct-push methods and a hollow-stem auger drill rig. Monitoring wells were installed in each of the borings advanced with the hollow-stem auger rig. Soil and groundwater samples were collected to evaluate the extent of contamination.

PRE-INVESTIGATION ACTIVITIES

Tesoro authorized SES to establish the schedule and coordinate with the various subcontractors who were to provide services on the project. Subcontractors included public and private utility locating services, a drilling contractor (Cascade), a United States Environmental Protection Agency (EPA)-accredited analytical laboratory (Test America, Inc.), and a waste disposal company to collect and dispose of investigation-derived waste (soil cuttings and purge water from wells). Prior to conducting the fieldwork, public and private utility locates were performed, and a Health and Safety Plan was prepared.

INVESTIGATION RESULTS

SES personnel mobilized to the field on May 25, 2006, to oversee the advancement of two hollow-stem auger soil borings at the locations shown in Figures 2 and 3. Soil boring logs for each of the borings were prepared and are attached as Appendix A. Soil borings were advanced to a depth of 15 feet bgs. Selected portions of each recovered soil core sample were placed in a plastic bag so that the presence or absence of volatile organic compounds could be quantified using a photo-ionization detector. Intervals of each recovered soil core sample selected for potential laboratory chemical analysis were placed into laboratory-prepared glassware in accordance with EPA Method 5035A.

Both of the borings were completed as monitoring wells, and the wells were developed using a submersible pump. On June 9, 2006, following proper well development, a groundwater sample was obtained via low-flow techniques using disposable polyethylene tubing and a peristaltic pump. Groundwater samples were pumped directly from the polyethylene tubing into laboratory-prepared containers appropriate for each analysis to be performed.

Groundwater and selected soil samples were submitted to Test America, Inc. of Bothell, Washington for analysis of DRPH, ORPH, GRPH, BTEX, and naphthalene. The soil samples were also tested for the presence of polynuclear aromatic hydrocarbons (PAHs), oxygenates (including methyl tertiary-butyl ether), and lead. The groundwater analytical results are presented in Table 1 and the soil results are presented in Table 2. Soil and groundwater analytical results are summarized in Figure 3. Boring logs and laboratory analytical reports are attached to this report as Appendix A and Appendix B, respectively.

INVESTIGATION-DERIVED WASTE

Soil cuttings and purge water from the investigation activities were contained in properly labeled 55-gallon drums and were stored on the property, pending disposal at a permitted facility.

CONCLUSIONS

Based on a review of the historical data, observations of subsurface conditions, and current analytical results, SES makes the following conclusions:

- Groundwater at the property is present at an average depth of approximately 10 feet bgs and generally flows toward the northwest.
- Concentrations of GRPH and benzene in excess of cleanup levels were detected in groundwater collected from the property in monitoring well MW-05.
- Concentrations of DRPH and/or ORPH in excess of cleanup levels were detected in groundwater collected from the property in monitoring wells MW-05, MW-06, MW-15, and MW-16.
- No exceedances of the cleanup levels were detected in any of the soil samples collected from borings B-15 and B-16.
- The source of the petroleum hydrocarbons can likely be attributed to releases from the above-ground bulk fuel storage tanks.

CLOSING

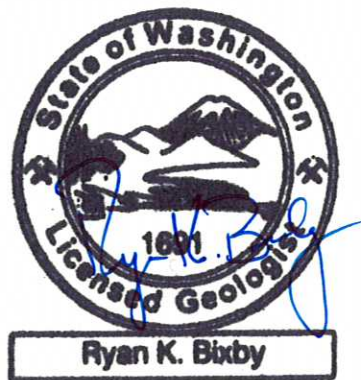
Sound Environmental Strategies Corporation trusts that the information presented in this Subsurface Investigation Report meets Tesoro's objectives. If you have any questions or require additional information please do not hesitate to contact the undersigned at (206) 306-1900.

Prepared by:

Erin K. Rothman
Project Scientist

Reviewed by:

Ryan K. Bixby, LG. #1691
Geoscience Project Manager



Attachments: Figure 1, Property Location Plan
Figure 2, Potentiometric Surface Map (June 9, 2006)
Figure 3, Soil and Groundwater Analytical Results
Table 1, Historical Groundwater Data
Table 2, Historical Soil Data
Appendix A, Boring Logs
Appendix B, Laboratory Analytical Reports

FIGURES

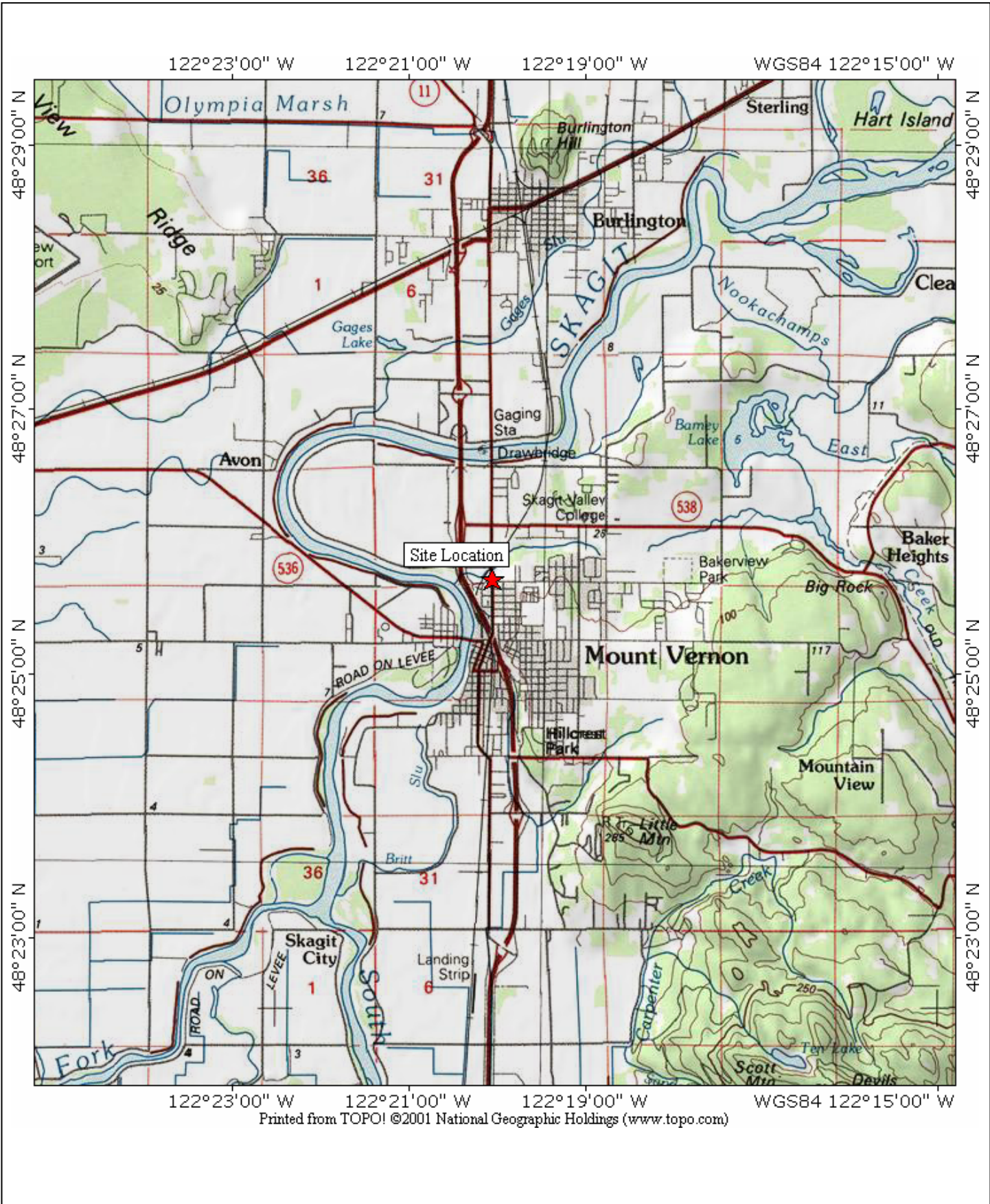
TABLES

APPENDIX A

Boring Logs

APPENDIX B
Laboratory Analytical Reports

FIGURES



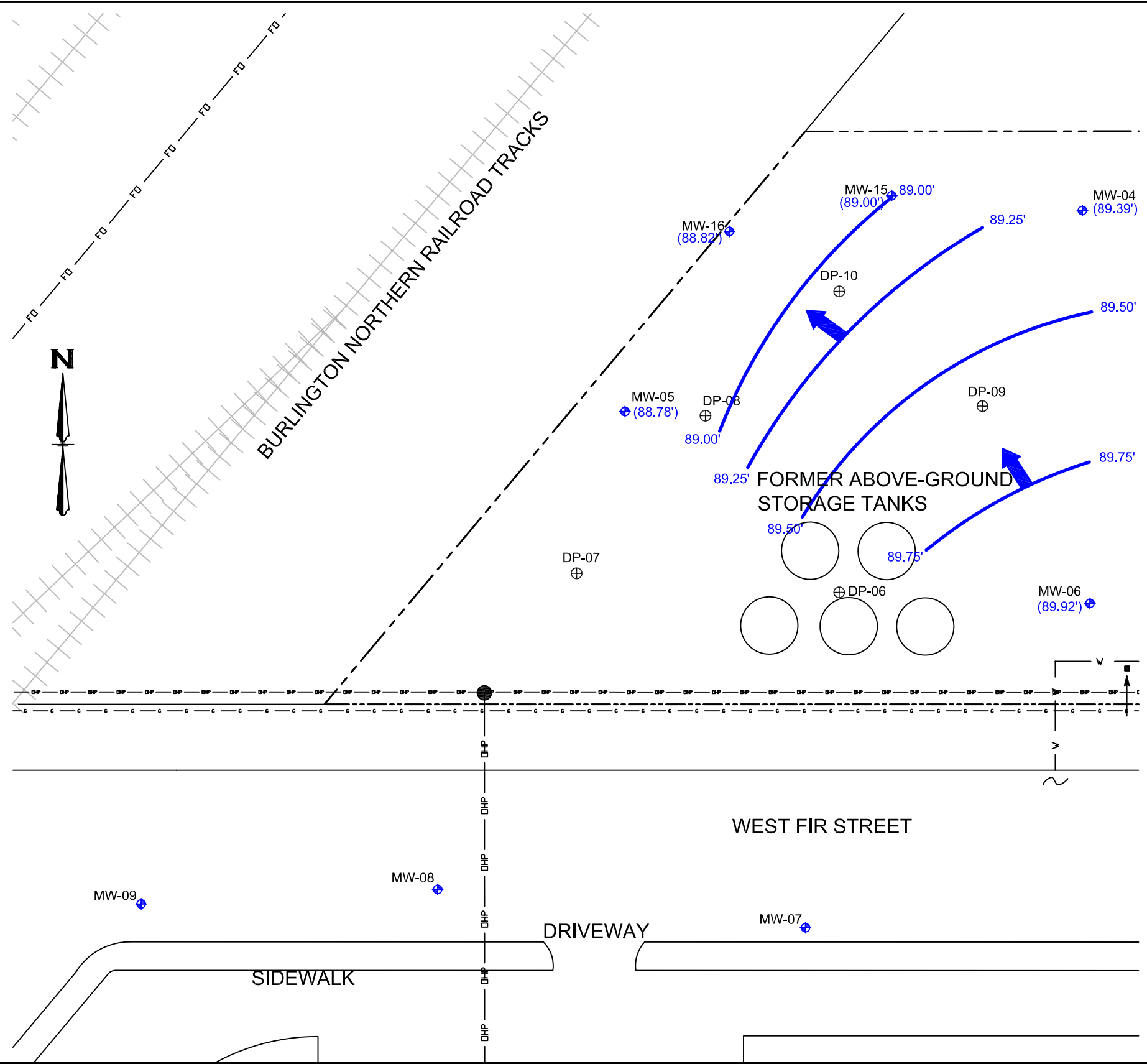
Date: August 22, 2006
 Drawn By: R. Bixby
 Chk By: R. Bixby
 SES Project No.: 0271-018-01
 File ID: 0271-018-01 2006 fig1.doc

Former Bulk Fuel Facility
 West Fir Street
 Mt. Vernon, Washington

FIGURE 1
 Property Location
 Plan

LEGEND

- PROPERTY BOUNDARY
- ⊕ DP-03 DIRECT PUSH BORING
- ⊕ MW-11 MONITORING WELL
- GROUNDWATER CONTOURS
0.5-FOOT INTERVALS
- 91.50' GROUNDWATER
POTENTIOMETRIC SURFACE
ELEVATION
- DHP — OVERHEAD POWER LINE
- E — ELECTRICAL LINE
- V — WATER LINE
- C — CABLE LINE
- FO — FIBER OPTIC LINE
- ➔ GROUNDWATER FLOW
DIRECTION (JUNE 9, 2006)



DATE: 7/19/2006
 DRAWN BY: VPB
 CHECKED BY: RKB
 CAD FILE: 0271-018-01 2006 SI CM

PROJECT NAME: FORMER BULK FUEL FACILITY
 SES PROJECT NUMBER: 0271-018-01
 STREET ADDRESS: WEST FIR STREET
 CITY: MOUNT VERNON, WASHINGTON

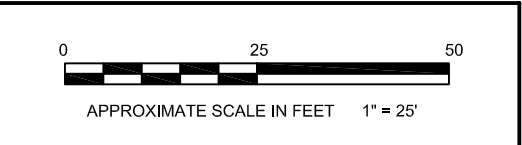
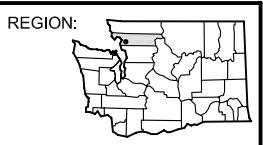
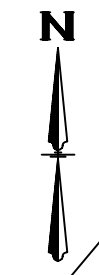


FIGURE 2
 POTENTIOMETRIC SURFACE MAP
 JUNE 9, 2006

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LEGEND

- PROPERTY BOUNDARY
- ⊕ DP-03 DIRECT PUSH BORING
- ⊕ MW-11 MONITORING WELL
- GRPH GASOLINE-RANGE PETROLEUM HYDROCARBONS
- DRPH DIESEL-RANGE PETROLEUM HYDROCARBONS
- ORPH OIL-RANGE PETROLEUM HYDROCARBONS
- MTCA A MODEL TOXICS CONTROL ACT METHOD A CLEANUP LEVELS
- DHP — OVERHEAD POWER LINE
- E — ELECTRICAL LINE
- W — WATER LINE
- C — CABLE LINE
- FO — FIBER OPTIC LINE
- (RED) REPORTED CONCENTRATION EXCEEDS MTCA METHOD A CLEANUP LEVELS
- ➔ SHALLOW GROUNDWATER FLOW DIRECTION (JUNE 9, 2006)
- SOIL ANALYTICAL RESULTS PRESENTED IN MILLIGRAMS PER KILOGRAM
- GROUNDWATER ANALYTICAL RESULTS PRESENTED IN MICROGRAMS PER LITER



MW-04	GRPH	DRPH	ORPH	Benzene	Toluene
06/09/06	60.6	361	<505	<0.500	<0.500
MTCA A	1,000/800	500	500	5	1,000

MW-15	GRPH	DRPH	ORPH	Benzene	Toluene
06/09/06	<50.0	557	560	<0.500	<0.500
MTCA A	1,000/800	500	500	5	1,000

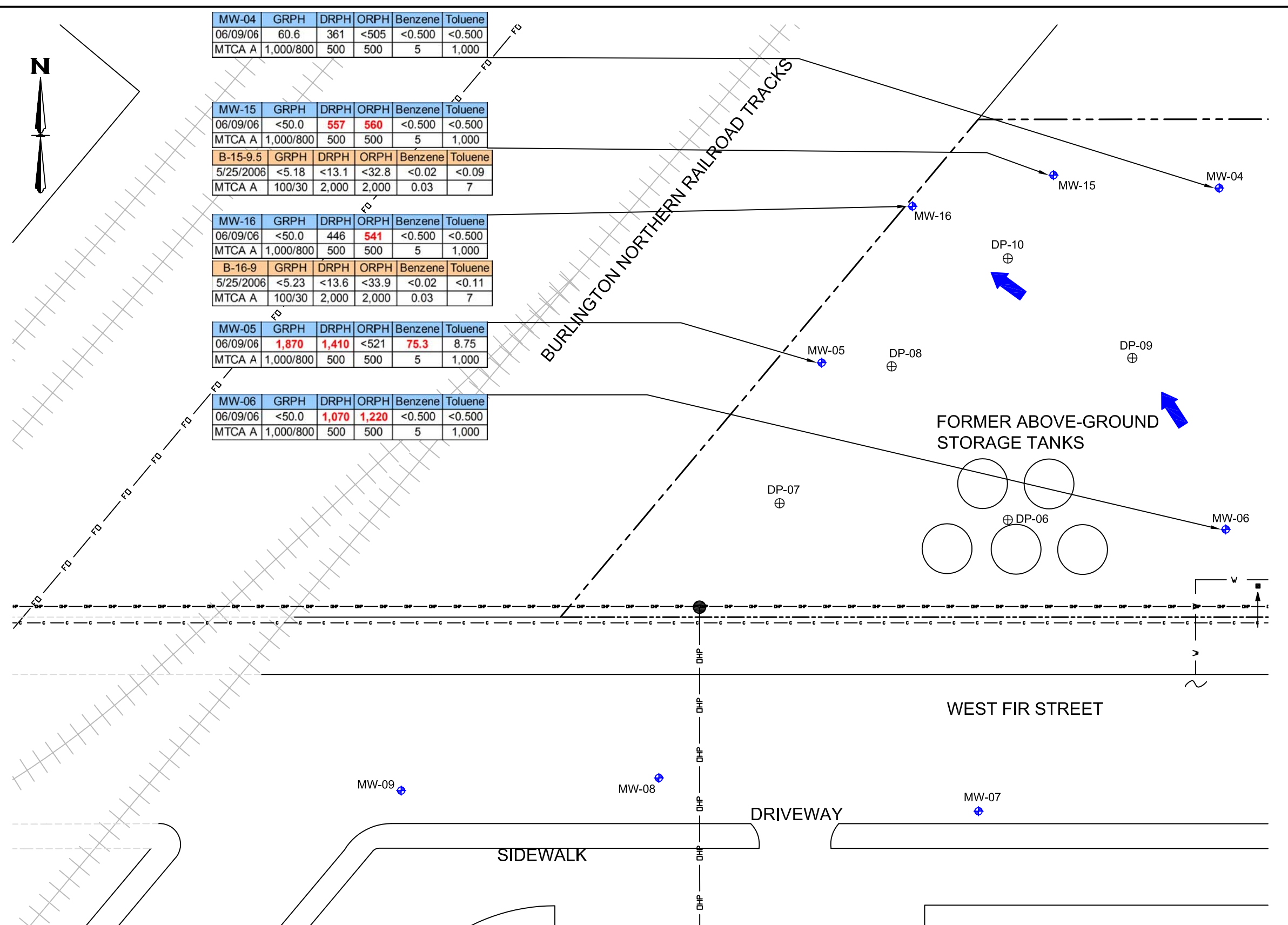
B-15-9.5	GRPH	DRPH	ORPH	Benzene	Toluene
5/25/2006	<5.18	<13.1	<32.8	<0.02	<0.09
MTCA A	100/30	2,000	2,000	0.03	7

MW-16	GRPH	DRPH	ORPH	Benzene	Toluene
06/09/06	<50.0	446	541	<0.500	<0.500
MTCA A	1,000/800	500	500	5	1,000

B-16-9	GRPH	DRPH	ORPH	Benzene	Toluene
5/25/2006	<5.23	<13.6	<33.9	<0.02	<0.11
MTCA A	100/30	2,000	2,000	0.03	7

MW-05	GRPH	DRPH	ORPH	Benzene	Toluene
06/09/06	1,870	1,410	<521	75.3	8.75
MTCA A	1,000/800	500	500	5	1,000

MW-06	GRPH	DRPH	ORPH	Benzene	Toluene
06/09/06	<50.0	1,070	1,220	<0.500	<0.500
MTCA A	1,000/800	500	500	5	1,000



DATE: 08/22/2006
 DRAWN BY: VPB
 CHECKED BY: RKB
 CAD FILE: 0271-018-01 2006 SD GD

PROJECT NAME: FORMER BULK FUEL FACILITY
 SES PROJECT NUMBER: 0271-018-01
 STREET ADDRESS: WEST FIR STREET
 CITY: MOUNT VERNON, WASHINGTON

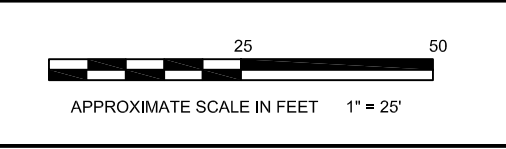
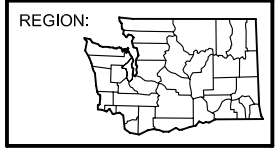


FIGURE 3
 SOIL AND GROUNDWATER ANALYTICAL RESULTS

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TABLES

Table 1
Historical Groundwater Data
Former Bulk Fuel Facility
115 West Fir Street, Mount Vernon, Washington

Well ID	Sample Date	Depth to Groundwater ² (feet)	Groundwater Elevation ³ (feet)	GRPH ⁴	DRPH ⁵	ORPH ⁵	Benzene ⁶	Toluene ⁶	Ethylbenzene ⁶
MW-04 TOC: 98.71	11/17/05	8.90	89.81	<50.0	420	<500	<0.500	<0.500	<0.500
	01/24/06	7.44	91.27	<50.0	510	<476	<0.500	<0.500	<0.500
	06/09/06	9.32	89.39	60.6	361	<505	<0.500	<0.500	<0.500
MW-05 TOC: 99.70	11/17/05	10.59	89.11	1,690	1,180	<568	11.3	3.34	<0.500
	01/24/06	9.05	90.65	1,270	1,130	<485	45.2	4.02	0.634
	06/09/06	10.92	88.78	1,870	1,410	<521	75.3	8.75	7.32
MW-06 TOC: 99.63	11/17/05	9.20	90.43	<50.0	516	<495	<0.500	<0.500	<0.500
	01/24/06	8.03	91.60	<50.0	972	522	<0.500	<0.500	<0.500
	06/09/06	9.71	89.92	<50.0	1,070	1,220	<0.500	<0.500	<0.500
MW-07 TOC: 99.89	11/17/05	8.54	91.35	<50.0	272	<472	<0.500	<0.500	<0.500
	01/24/06	7.50	92.39	<50.0	<245	<490	<0.500	<0.500	<0.500
MW-08 TOC: 100.13	11/17/05	8.38	91.75	<50.0	291	<472	<0.500	<0.500	<0.500
	01/24/06	8.00	92.13	<50.0	<248	<495	<0.500	<0.500	<0.500
MW-09 TOC: 100.23	11/17/05	9.47	90.76	<50.0	314	<472	<0.500	<0.500	<0.500
	01/24/06	9.14	91.09	<50.0	<243	<485	<0.500	<0.500	<0.500
MW-10 TOC: 98.71	11/17/05	8.88	89.83	<50.0	<269	<538	<0.500	<0.500	<0.500
	01/24/06	8.40	90.31	<50.0	<245	<490	<0.500	<0.500	<0.500
MW-15 TOC: 98.81	06/09/06	9.81	89.00	<50.0	557	560	<0.500	<0.500	<0.500
	06/09/06	10.47	88.82	<50.0	446	541	<0.500	<0.500	<0.500
MTCA Method A Cleanup Levels for Groundwater ⁸				1,000/800	500	500	5	1,000	700

NOTES:

Results measured in micrograms per liter.

Concentrations exceeding MTCA Method A Cleanup Levels for groundwater are shown in **Red**.

¹Samples analyzed by Test America, Inc., of Bothell, Washington

²Depth to water as measured from a fixed spot on the well casing rim.

³Elevations measured relative to a temporary benchmark with an assumed elevation of 100.00 feet.

⁴Analyzed by Northwest Method NWTPH-Gx.

⁵Analyzed by Northwest Method NWTPH-Dx.

⁶Analyzed by United States Environmental Protection Agency Method 8260B.

⁷Monitoring wells MW-07 through MW-10 are located in the right-of-way to the south of the property and were not sampled in the course of this investigation.

⁸MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of the Washington Administrative Code 173-340-900.

-- = not analyzed

DRPH = diesel-range petroleum hydrocarbons

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Model Toxic Control Act

ORPH = oil-range petroleum hydrocarbons

TOC = top of casing elevation

**Table 2
Historical Soil Data
Former Bulk Fuel Facility
West Fir Street, Mount Vernon, Washington**

Sample ID	Date Sampled	Depth (feet)	GRPH ¹	DRPH ²	ORPH ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³	Naphthalene ³
DP-6-8	8/23/2005	8	3,120	1,210	<250	1.12	<0.713	21.5	165	66.8
DP-6-10	8/23/2005	10	1,000	711	<125	0.751	<0.549	2.65	2.12	5.06
DP-6-15	8/23/2005	15	<3.43	<10.0	<25.0	<0.0206	<0.0343	<0.0343	<0.0685	<0.137
DP-7-6	8/23/2005	6	729	2,960	<500	<0.232	<0.387	0.519	<0.774	<1.55
DP-7-12	8/23/2005	12	498	3,290	<1,000	<0.0819	0.168	0.361	0.466	<0.546
DP-7-15	8/23/2005	15	<3.01	<10.0	<25.0	<0.0180	<0.0301	<0.0301	<0.0601	<0.120
DP-8-4	8/23/2005	4	<3.90	159	422	0.0495	<0.0390	<0.0390	<0.0780	<0.156
DP-8-8	8/23/2005	8	1,960	21.9	<25.0	<0.484	<0.806	3.46	3.03	<3.23
DP-8-14	8/23/2005	14	8.31	2,630	<500	0.0261	<0.0259	0.0357	0.0521	<0.104
DP-8-16	8/23/2005	16	5.71	<10.0	<25.0	<0.0179	<0.0298	<0.0298	<0.0596	<0.119
DP-9-8	8/23/2005	8	16.2	<10.0	<25.0	<0.0220	<0.0367	0.164	0.564	1.86
DP-9-10	8/23/2005	10	102	<10.0	<25.0	0.0524	<0.0333	0.997	0.7	1.37
DP-9-14	8/23/2005	14	5.05	<10.0	<25.0	<0.0159	<0.0264	<0.0264	<0.0529	<0.106
DP-10-11	8/23/2005	11	7.41	<10.0	<25.0	<0.0216	<0.0360	<0.0360	<0.0720	<0.144
DP-10-13	8/23/2005	13	<3.40	<10.0	<25.0	<0.0204	<0.0340	<0.0340	<0.0679	<0.136
DP-10-16	8/23/2005	16	<3.13	<10.0	<25.0	<0.0188	<0.0313	<0.0313	<0.0626	<0.125
MW-4-6.5	10/26/2005	6.5	<8.24	792	2,370	<0.0329	<0.0824	<0.0824	<0.165	--
MW-4-11	10/26/2005	11	<8.44	<15.1	<37.8	<0.0338	<0.0844	<0.0844	<0.169	--
MW-4-16	10/26/2005	16	<5.73	<12.3	<30.7	<0.0229	<0.0573	<0.0573	<0.115	--
MW-5-5.5	10/26/2005	5.5	<7.62	115	420	<0.0305	<0.0762	<0.0762	<0.152	--
MW-5-6	10/27/2005	6	<5.63	<11.8	<29.5	<0.0225	<0.0563	<0.0563	<0.113	--
MW-5-11	10/26/2005	11	<8.40	<14.8	<37.1	<0.0336	<0.0840	<0.0840	<0.168	--
MW-5-16	10/26/2005	16	<5.62	<12.3	<30.8	<0.0225	<0.0562	<0.0562	<0.112	--
MW-6-5.5	10/26/2005	5.5	<4.87	18.1	89.5	<0.0195	<0.0487	<0.0487	<0.0975	--
MW-6-11	10/26/2005	11	155	268	123	0.852	<0.0470	0.108	0.134	--
MW-6-16	10/26/2005	16	<6.91	<13.3	<33.2	<0.0276	<0.0691	<0.0691	<0.138	--
MW-7-6	10/27/2005	6	<5.65	15.3	56.4	<0.0226	<0.0565	<0.0565	<0.113	--
MW-7-11	10/27/2005	11	<7.66	<14.8	<37.1	<0.0306	<0.0766	<0.0766	<0.153	--
MW-7-16	10/27/2005	16	<7.20	<14.3	<35.9	<0.0288	<0.0720	<0.0720	<0.144	--
MW-8-11	10/27/2005	11	<6.79	<14.3	<35.8	<0.0271	<0.0679	<0.0679	<0.136	--
MW-8-16	10/27/2005	16	<6.86	<14.1	<35.2	<0.0275	<0.0686	<0.0686	<0.137	--
MW-9-5.5	10/27/2005	5.5	<5.26	32.3	101	<0.0210	<0.0526	<0.0526	<0.105	--
MW-9-11	10/27/2005	11	<5.28	<11.2	<28.0	<0.0211	<0.0528	<0.0528	<0.106	--
MW-9-16	10/27/2005	16	<7.47	<14.3	<35.7	<0.0299	<0.0747	<0.0747	<0.149	--
MW-15-9.5	5/25/2006	9.5	<5.18	<13.1	<32.8	<0.02	<0.09	<0.09	<0.28	<0.09
MW-16-9	5/25/2006	6	<5.23	<13.6	<33.9	<0.02	<0.11	<0.11	<0.33	<0.11
MTCA Method A cleanup levels ⁵			100/30 ⁶	2,000	2,000	0.03	7	6	9	5

NOTES:

All results measured in milligrams per kilogram (mg/kg)

Red indicates concentrations that exceed MTCA Method A Cleanup Levels

¹Analyzed by Northwest Method NWTPH-Gx

²Analyzed by Northwest Method NWTPH-Dx

³Analyzed by U.S. Environmental Protection Agency Method 8260B

⁴Analyzed by U.S. Environmental Protection Agency Method 6020.

⁵MTCA Method A Cleanup Levels for soil, Table 740-1 of the Washington Administrative Code 173-340-900.

-- = not analyzed

ORPH = Oil-range petroleum hydrocarbons

DRPH = Diesel-range petroleum hydrocarbons

GRPH = Gasoline-range petroleum hydrocarbons

MTCA = Model Toxics Control Act

APPENDIX A

Boring Logs

Log of Exploratory Boring:

Drilling Co./Driller: Cascade / Steve

Drilling Method: Hollow Stem Auger

Location: 12' S and 55' W of NW corner of building

Surface Condition: Gravel

Total Depth: 15

First GW Depth: 9.5

Notes

Along northern property boundary

Moisture Content:

Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Water Levels

▼ After Completion

▽ During Drilling

Hydrocarbon Odor: NO = no odor, VFO = very faint odor

WO = weak odor, MO = moderate odor, SO = strong odor

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							GM	Gravel		
1										
2										
3										
4	3				B15-4.5		ML	Damp, medium dense, sandy, gravelly SILT, dark brown, no hydrocarbon odor	Dp	
4	4	0.0	100	SM			Damp, medium dense, silty, fine SAND, brown, no hydrocarbon odor			
5	6									
6										
7										
8										
9	4				B15-9.5		SM	Damp to wet at 9.5', medium dense, silty, fine SAND, brown, no hydrocarbon odor	Dp/Wet	
9	5	0.0	100							
10	4									
11										
12										
13										
14	6				B15-14		GM	Wet, medium dense, silty, sandy GRAVEL, very fine to very coarse sand, brown, no hydrocarbon odor	Wet	
14	6	0.0	100							
15	6									
16								Boring terminated at 15 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using 2-inch diameter PVC, 0.010 slot screen, 10-20 silica sand, bentonite chips, and concrete seal. Renamed MW-15.		
17										
18										
19										
20										



Former Bulk Fuel Facility
West Fir Street
Mount Vernon, Washington

Date Started: 5/25/2006
Date Finished: 5/25/2006
Logged By: CSC
Chk By: RKB
SES Project No.: 0271-018-01
File ID.: F:\SES GINT\PROJECTS\271-15 TESORO.MT VERNON FIR ST BORING LOGS.GPJ

BORING LOG
B-15

Log of Exploratory Boring:

Notes

NW corner of former bulk fuel storage parcel

Drilling Co./Driller: Cascade / Steve

Drilling Method: Hollow Stem Auger

Location: 19' S and 89' W of NW corner of building

Moisture Content:

Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Water Levels

▼ After Completion

▽ During Drilling

Surface Condition: Gravel

Total Depth: 15

First GW Depth: 9.5

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							GM	Gravel		
1										
2										
3										
4	4	0.0	100		B16-4		ML	Damp, medium dense, sandy, gravelly SILT, dark brown, no hydrocarbon odor	Dp	
5	6						SM	Damp, medium dense, silty, fine SAND, brown, no hydrocarbon odor		
6	9									
7										
8										
9	10	0.0	100		B16-9		SM	Damp to wet at 9.5', dense, silty, fine SAND, brown, no hydrocarbon odor	▽ Dp	
10	14									
11	18									
12										
13										
14	16	0.0	100		B16-14.5		GM	Wet, dense, silty, sandy GRAVEL, very fine to very coarse sand, brown, no hydrocarbon odor	Wet	
15	19									
16	23									
17								Boring terminated at 15 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using 2-inch diameter PVC, 0.010 slot screen, 10-20 silica sand, bentonite chips, and concrete seal. Renamed MW-16.		
18										
19										
20										



Former Bulk Fuel Facility
West Fir Street
Mount Vernon, Washington

Date Started: 5/25/2006
Date Finished: 5/25/2006
Logged By: CSC
Chk By: RKB
SES Project No.: 0271-018-01
File ID.: F:\SES GINT\PROJECTS\271-15 TESORO MT VERNON FIR ST BORING LOGS.GPJ

BORING LOG
B-16

APPENDIX B
Laboratory Analytical Reports

June 14, 2006

Ryan Bixby
Sound Environmental Strategies
2400 Airport Way South, Suite 200
Seattle, WA/USA 98134-2020

RE: Tesoro-Former Bulk Storage Facility, Mt. Vernon

Enclosed are the results of analyses for samples received by the laboratory on 05/26/06 12:00.
The following list is a summary of the Work Orders contained in this report, generated on 06/14/06
13:00.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
BPE0894	Tesoro-Former Bulk Storage F	0271-015-03

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name:	Tesoro-Former Bulk Storage Facility, Mt. Vernon	
	Project Number:	0271-015-03	Report Created:
	Project Manager:	Ryan Bixby	06/14/06 13:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B15-9.5	BPE0894-02	Soil	05/25/06 12:44	05/26/06 12:00
B16-9	BPE0894-05	Soil	05/25/06 13:37	05/26/06 12:00

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name:	Tesoro-Former Bulk Storage Facility, Mt. Vernon	Report Created:
	Project Number:	0271-015-03	06/14/06 13:00
	Project Manager:	Ryan Bixby	

Volatile Petroleum Products by NWTPH-Gx
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-02 (B15-9.5)		Soil			Sampled: 05/25/06 12:44					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	5.18	mg/kg dry	1x	6F01046	06/01/06 12:09	06/02/06 02:37	
<i>Surrogate(s): 4-BFB (FID)</i>			88.7%		50 - 150 %		"			"
BPE0894-05 (B16-9)		Soil			Sampled: 05/25/06 13:37					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	----	5.23	mg/kg dry	1x	6F01046	06/01/06 12:09	06/02/06 06:10	
<i>Surrogate(s): 4-BFB (FID)</i>			86.9%		50 - 150 %		"			"

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-02 (B15-9.5)		Soil			Sampled: 05/25/06 12:44					
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	13.1	mg/kg dry	1x	6F01061	06/01/06 14:40	06/06/06 00:55	
Lube Oil Range Hydrocarbons	"	ND	----	32.8	"	"	"	"	"	
Surrogate(s): 2-FBP			101%		50 - 150 %	"				"
Octacosane			93.6%		50 - 150 %	"				"
BPE0894-05 (B16-9)		Soil			Sampled: 05/25/06 13:37					
Diesel Range Hydrocarbons	NWTPH-Dx	ND	----	13.6	mg/kg dry	1x	6F01061	06/01/06 14:40	06/06/06 01:53	
Lube Oil Range Hydrocarbons	"	ND	----	33.9	"	"	"	"	"	
Surrogate(s): 2-FBP			91.2%		50 - 150 %	"				"
Octacosane			88.4%		50 - 150 %	"				"

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Total Metals by EPA 6000/7000 Series Methods
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-02 (B15-9.5)		Soil			Sampled: 05/25/06 12:44					
Lead	EPA 6020	2.77	----	0.660	mg/kg dry	1x	6F06013	06/06/06 08:42	06/09/06 01:12	
BPE0894-05 (B16-9)		Soil			Sampled: 05/25/06 13:37					
Lead	EPA 6020	3.46	----	0.699	mg/kg dry	1x	6F06013	06/06/06 08:42	06/09/06 01:40	

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-02 (B15-9.5)		Soil			Sampled: 05/25/06 12:44					
Acenaphthene	EPA 8270-SIM	ND	----	0.0131	mg/kg dry	1x	6F08043	06/08/06 13:56	06/13/06 13:28	
Acenaphthylene	"	ND	----	0.0131	"	"	"	"	"	
Anthracene	"	ND	----	0.0131	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0131	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0131	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0131	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0131	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0131	"	"	"	"	"	
Chrysene	"	ND	----	0.0131	"	"	"	"	"	
Dibenz (a,h) anthracene	"	ND	----	0.0131	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0131	"	"	"	"	"	
Fluorene	"	ND	----	0.0131	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0131	"	"	"	"	"	
1-Methylnaphthalene	"	ND	----	0.0131	"	"	"	"	"	
2-Methylnaphthalene	"	0.0223	----	0.0131	"	"	"	"	"	
Naphthalene	"	ND	----	0.0131	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0131	"	"	"	"	"	
Pyrene	"	ND	----	0.0131	"	"	"	"	"	

Surrogate(s): *p-Terphenyl-d14* 59.2% 50 - 147 % " "

BPE0894-05 (B16-9)		Soil			Sampled: 05/25/06 13:37					
Acenaphthene	EPA 8270-SIM	ND	----	0.0137	mg/kg dry	1x	6F08043	06/08/06 13:56	06/13/06 13:59	
Acenaphthylene	"	ND	----	0.0137	"	"	"	"	"	
Anthracene	"	ND	----	0.0137	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0137	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0137	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0137	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0137	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0137	"	"	"	"	"	
Chrysene	"	ND	----	0.0137	"	"	"	"	"	
Dibenz (a,h) anthracene	"	ND	----	0.0137	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0137	"	"	"	"	"	
Fluorene	"	ND	----	0.0137	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0137	"	"	"	"	"	
1-Methylnaphthalene	"	ND	----	0.0137	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	0.0137	"	"	"	"	"	
Naphthalene	"	ND	----	0.0137	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0137	"	"	"	"	"	

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-05 (B16-9)		Soil			Sampled: 05/25/06 13:37					
Pyrene	EPA 8270-SIM	ND	-----	0.0137	mg/kg dry	1x	6F08043	06/08/06 13:56	06/13/06 13:59	
Surrogate(s): <i>p-Terphenyl-d14</i>			75.9%		50 - 147 %	"				"

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Physical Parameters by APHA/ASTM/EPA Methods
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-02 (B15-9.5)		Soil			Sampled: 05/25/06 12:44					
Dry Weight	BSOPSP003R0 8	76.5	----	1.00	%	1x	6E31049	05/31/06 17:27	06/01/06 17:00	
BPE0894-05 (B16-9)		Soil			Sampled: 05/25/06 13:37					
Dry Weight	BSOPSP003R0 8	73.7	----	1.00	%	1x	6E31049	05/31/06 17:27	06/01/06 17:00	

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies

2400 Airport Way South, Suite 200
 Seattle, WA/USA 98134-2020

Project Name: **Tesoro-Former Bulk Storage Facility, Mt. Vernon**

Project Number: 0271-015-03

Project Manager: Ryan Bixby

Report Created:

06/14/06 13:00

Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPE0894-02 (B15-9.5)		Soil		Sampled: 05/25/06 12:44						
tert-Amyl Methyl Ether	EPA 8260B	ND	----	0.47	mg/kg dry	1x	6F01072	06/01/06 17:22	06/01/06 22:54	
Benzene	"	ND	----	0.02	"	"	"	"	"	
tert-Butyl Alcohol	"	ND	----	4.7	"	"	"	"	"	
1,2-Dibromoethane (EDB)	"	ND	----	0.05	"	"	"	"	"	
1,2-Dichloroethane (EDC)	"	ND	----	0.05	"	"	"	"	"	
Diisopropyl ether	"	ND	----	0.47	"	"	"	"	"	
Ethyl tert-butyl ether	"	ND	----	0.47	"	"	"	"	"	
Ethanol	"	ND	----	19	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.09	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.47	"	"	"	"	"	
Naphthalene	"	ND	----	0.09	"	"	"	"	"	
Toluene	"	ND	----	0.09	"	"	"	"	"	
o-Xylene	"	ND	----	0.09	"	"	"	"	"	
m,p-Xylene	"	ND	----	0.19	"	"	"	"	"	
Xylenes (total)	"	ND	----	0.28	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			<i>101%</i>		<i>70 - 130 %</i>	<i>"</i>			<i>"</i>	
<i>Toluene-d8</i>			<i>102%</i>		<i>70 - 130 %</i>	<i>"</i>			<i>"</i>	
<i>4-BFB</i>			<i>96.8%</i>		<i>70 - 130 %</i>	<i>"</i>			<i>"</i>	
BPE0894-05 (B16-9)		Soil		Sampled: 05/25/06 13:37						
tert-Amyl Methyl Ether	EPA 8260B	ND	----	0.54	mg/kg dry	1x	6F01072	06/01/06 17:22	06/02/06 11:29	
Benzene	"	ND	----	0.02	"	"	"	"	"	
tert-Butyl Alcohol	"	ND	----	5.4	"	"	"	"	"	
1,2-Dibromoethane (EDB)	"	ND	----	0.05	"	"	"	"	"	
1,2-Dichloroethane (EDC)	"	ND	----	0.05	"	"	"	"	"	
Diisopropyl ether	"	ND	----	0.54	"	"	"	"	"	
Ethyl tert-butyl ether	"	ND	----	0.54	"	"	"	"	"	
Ethanol	"	ND	----	22	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.11	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	----	0.54	"	"	"	"	"	
Naphthalene	"	ND	----	0.11	"	"	"	"	"	
Toluene	"	ND	----	0.11	"	"	"	"	"	
o-Xylene	"	ND	----	0.11	"	"	"	"	"	
m,p-Xylene	"	ND	----	0.22	"	"	"	"	"	
Xylenes (total)	"	ND	----	0.33	"	"	"	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>			<i>98.6%</i>		<i>70 - 130 %</i>	<i>"</i>			<i>"</i>	
<i>Toluene-d8</i>			<i>101%</i>		<i>70 - 130 %</i>	<i>"</i>			<i>"</i>	
<i>4-BFB</i>			<i>98.6%</i>		<i>70 - 130 %</i>	<i>"</i>			<i>"</i>	

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name:	Tesoro-Former Bulk Storage Facility, Mt. Vernon	Report Created:
	Project Number:	0271-015-03	06/14/06 13:00
	Project Manager:	Ryan Bixby	

Oxygenates by EPA Method 8260B
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/14/06 13:00
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Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F01046 **Soil Preparation Method: EPA 5030B (MeOH)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6F01046-BLK1)							Extracted: 06/01/06 11:09							
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	5.00	mg/kg wet	1x	--	--	--	--	--	--	06/01/06 11:37	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 91.0%</i>			<i>Limits: 50-150%</i>	<i>"</i>							<i>06/01/06 11:37</i>	
LCS (6F01046-BS1)							Extracted: 06/01/06 11:09							
Gasoline Range Hydrocarbons	NWTPH-Gx	46.1	---	5.00	mg/kg wet	1x	--	50.0	92.2%	(75-125)	--	--	06/01/06 12:07	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 103%</i>			<i>Limits: 50-150%</i>	<i>"</i>							<i>06/01/06 12:07</i>	
Duplicate (6F01046-DUP1)							QC Source: BPE0880-01		Extracted: 06/01/06 11:09					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	4.61	mg/kg dry	1x	ND	--	--	--	0.696% (40)		06/01/06 14:10	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 85.1%</i>			<i>Limits: 50-150%</i>	<i>"</i>							<i>06/01/06 14:10</i>	
Duplicate (6F01046-DUP2)							QC Source: BPE0893-01		Extracted: 06/01/06 11:09					
Gasoline Range Hydrocarbons	NWTPH-Gx	ND	---	6.98	mg/kg dry	1x	ND	--	--	--	35.0% (40)		06/01/06 23:33	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 90.9%</i>			<i>Limits: 50-150%</i>	<i>"</i>							<i>06/01/06 23:33</i>	
Matrix Spike (6F01046-MS1)							QC Source: BPE0880-01		Extracted: 06/01/06 11:09					
Gasoline Range Hydrocarbons	NWTPH-Gx	44.0	---	4.61	mg/kg dry	1x	0.721	46.1	93.9%	(42-125)	--	--	06/01/06 15:11	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 105%</i>			<i>Limits: 50-150%</i>	<i>"</i>							<i>06/01/06 15:11</i>	

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/14/06 13:00
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Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F01061 Soil Preparation Method: EPA 3550B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
Blank (6F01061-BLK1)													Extracted: 06/01/06 14:40			
Diesel Range Hydrocarbons	NWTPH-Dx	ND	---	10.0	mg/kg wet	1x	--	--	--	--	--	--	06/05/06 18:34			
Lube Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"			
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 106%</i>		<i>Limits: 50-150%</i>		<i>"</i>						<i>06/05/06 18:34</i>				
<i>Octacosane</i>		<i>97.8%</i>		<i>50-150%</i>		<i>"</i>						<i>"</i>				
LCS (6F01061-BS1)													Extracted: 06/01/06 14:40			
Diesel Range Hydrocarbons	NWTPH-Dx	71.3	---	10.0	mg/kg wet	1x	--	66.7	107%	(71-120)	--	--	06/05/06 20:03			
Lube Oil Range Hydrocarbons	"	58.9	---	25.0	"	"	--	"	88.3%	(60-140)	--	--	"			
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 114%</i>		<i>Limits: 50-150%</i>		<i>"</i>						<i>06/05/06 20:03</i>				
<i>Octacosane</i>		<i>96.3%</i>		<i>50-150%</i>		<i>"</i>						<i>"</i>				
Duplicate (6F01061-DUP1)													QC Source: BPE0894-03		Extracted: 06/01/06 14:40	
Diesel Range Hydrocarbons	NWTPH-Dx	ND	---	9.90	mg/kg wet	1x	--	--	--	--	(40)	--	06/05/06 20:18			
Lube Oil Range Hydrocarbons	"	ND	---	24.8	"	"	--	--	--	--	--	--	"			
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 104%</i>		<i>Limits: 50-150%</i>		<i>"</i>						<i>06/05/06 20:18</i>				
<i>Octacosane</i>		<i>98.1%</i>		<i>50-150%</i>		<i>"</i>						<i>"</i>				
Matrix Spike (6F01061-MS1)													QC Source: BPE0894-03		Extracted: 06/01/06 14:40	
Diesel Range Hydrocarbons	NWTPH-Dx	71.8	---	9.93	mg/kg wet	1x	--	66.2	108%	(45-144)	--	--	06/05/06 21:14			
Lube Oil Range Hydrocarbons	"	58.3	---	24.8	"	"	--	"	88.1%	(50-150)	--	--	"			
<i>Surrogate(s): 2-FBP</i>		<i>Recovery: 110%</i>		<i>Limits: 50-150%</i>		<i>"</i>						<i>06/05/06 21:14</i>				
<i>Octacosane</i>		<i>96.6%</i>		<i>50-150%</i>		<i>"</i>						<i>"</i>				

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Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/14/06 13:00
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Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results
TestAmerica - Seattle, WA

QC Batch: 6F06013 Soil Preparation Method: EPA 3050B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6F06013-BLK1)								Extracted: 06/06/06 08:42						
Lead	EPA 6020	ND	---	0.500	mg/kg wet	1x	--	--	--	--	--	--	06/09/06 12:02	
LCS (6F06013-BS1)								Extracted: 06/06/06 08:42						
Lead	EPA 6020	41.0	---	0.500	mg/kg wet	1x	--	40.0	102%	(80-120)	--	--	06/09/06 12:07	
Duplicate (6F06013-DUP1)				QC Source: BPE0893-01				Extracted: 06/06/06 08:42						
Lead	EPA 6020	5.75	---	0.756	mg/kg dry	1x	7.11	--	--	--	21.2% (30)	--	06/09/06 12:24	
Matrix Spike (6F06013-MS1)				QC Source: BPE0893-01				Extracted: 06/06/06 08:42						
Lead	EPA 6020	69.6	---	0.756	mg/kg dry	1x	7.11	60.5	103%	(29-166)	--	--	06/09/06 12:19	
Post Spike (6F06013-PS1)				QC Source: BPE0893-01				Extracted: 06/06/06 08:42						
Lead	EPA 6020	0.106	---		ug/ml	1x	0.00940	0.0995	97.1%	(75-125)	--	--	06/09/06 12:13	

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F08043 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6F08043-BLK1)													Extracted: 06/08/06 13:56	
Acenaphthene	EPA 8270-SIM	ND	---	0.0100	mg/kg wet	1x	--	--	--	--	--	--	06/13/06 12:37	
Acenaphthylene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Dibenz (a,h) anthracene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
1-Methylnaphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
2-Methylnaphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.0100	"	"	--	--	--	--	--	--	"	

Surrogate(s): *p-Terphenyl-d14* Recovery: 89.1% Limits: 50-147% " 06/13/06 12:37

LCS (6F08043-BS2)													Extracted: 06/08/06 13:56	
Acenaphthene	EPA 8270-SIM	0.524	---	0.0100	mg/kg wet	1x	--	0.667	78.6%	(70-125)	--	--	06/13/06 12:06	
Acenaphthylene	"	0.563	---	0.0100	"	"	--	"	84.4%	(70-133)	--	--	"	
Anthracene	"	0.602	---	0.0100	"	"	--	"	90.3%	(70-152)	--	--	"	
Benzo (a) anthracene	"	0.479	---	0.0100	"	"	--	"	71.8%	(60-125)	--	--	"	
Benzo (a) pyrene	"	0.522	---	0.0100	"	"	--	"	78.3%	(64-134)	--	--	"	
Benzo (b) fluoranthene	"	0.529	---	0.0100	"	"	--	"	79.3%	(62-147)	--	--	"	
Benzo (k) fluoranthene	"	0.586	---	0.0100	"	"	--	"	87.9%	(60-144)	--	--	"	
Benzo (ghi) perylene	"	0.495	---	0.0100	"	"	--	"	74.2%	(57-137)	--	--	"	
Chrysene	"	0.560	---	0.0100	"	"	--	"	84.0%	(70-139)	--	--	"	
Dibenz (a,h) anthracene	"	0.504	---	0.0100	"	"	--	"	75.6%	(56-140)	--	--	"	
Fluoranthene	"	0.495	---	0.0100	"	"	--	"	74.2%	(70-141)	--	--	"	
Fluorene	"	0.510	---	0.0100	"	"	--	"	76.5%	(76-132)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	0.491	---	0.0100	"	"	--	"	73.6%	(55-138)	--	--	"	
1-Methylnaphthalene	"	0.408	---	0.0100	"	"	--	"	61.2%	(46-128)	--	--	"	
2-Methylnaphthalene	"	0.423	---	0.0100	"	"	--	"	63.4%	(41-125)	--	--	"	
Naphthalene	"	0.457	---	0.0100	"	"	--	"	68.5%	(43-125)	--	--	"	
Phenanthrene	"	0.513	---	0.0100	"	"	--	"	76.9%	(73-125)	--	--	"	

TestAmerica - Seattle, WA

Kate Haney

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F08043 Soil Preparation Method: EPA 3545

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
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LCS (6F08043-BS2) Extracted: 06/08/06 13:56

Pyrene	EPA 8270-SIM	0.613	---	0.0100	mg/kg wet	1x	--	0.667	91.9%	(68-140)	--	--	06/13/06 12:06	
<i>Surrogate(s): p-Terphenyl-d14</i>		<i>Recovery: 82.9%</i>		<i>Limits: 50-147%</i>									<i>06/13/06 12:06</i>	

Matrix Spike (6F08043-MS2) QC Source: BPE0894-02 Extracted: 06/08/06 13:56

Acenaphthene	EPA 8270-SIM	0.580	---	0.0130	mg/kg dry	1x	0.00315	0.866	66.6%	(67-132)	--	--	06/13/06 14:30	MS-2
Acenaphthylene	"	0.636	---	0.0130	"	"	0.00122	"	73.3%	(65-142)	--	--	"	
Anthracene	"	0.708	---	0.0130	"	"	ND	"	81.8%	(66-158)	--	--	"	
Benzo (a) anthracene	"	0.586	---	0.0130	"	"	ND	"	67.7%	(41-156)	--	--	"	
Benzo (a) pyrene	"	0.695	---	0.0130	"	"	ND	"	80.3%	(52-148)	--	--	"	
Benzo (b) fluoranthene	"	0.741	---	0.0130	"	"	ND	"	85.6%	(53-151)	--	--	"	
Benzo (k) fluoranthene	"	0.748	---	0.0130	"	"	ND	"	86.4%	(46-161)	--	--	"	
Benzo (ghi) perylene	"	0.651	---	0.0130	"	"	ND	"	75.2%	(26-154)	--	--	"	
Chrysene	"	0.694	---	0.0130	"	"	ND	"	80.1%	(55-155)	--	--	"	
Dibenz (a,h) anthracene	"	0.637	---	0.0130	"	"	ND	"	73.6%	(27-157)	--	--	"	
Fluoranthene	"	0.601	---	0.0130	"	"	ND	"	69.4%	(46-172)	--	--	"	
Fluorene	"	0.608	---	0.0130	"	"	0.00201	"	70.0%	(66-143)	--	--	"	
Indeno (1,2,3-cd) pyrene	"	0.635	---	0.0130	"	"	ND	"	73.3%	(24-159)	--	--	"	
1-Methylnaphthalene	"	0.455	---	0.0130	"	"	0.00831	"	51.6%	(39-140)	--	--	"	
2-Methylnaphthalene	"	0.474	---	0.0130	"	"	0.0223	"	52.2%	(32-139)	--	--	"	
Naphthalene	"	0.516	---	0.0130	"	"	0.0102	"	58.4%	(38-134)	--	--	"	
Phenanthrene	"	0.611	---	0.0130	"	"	ND	"	70.6%	(63-139)	--	--	"	
Pyrene	"	0.748	---	0.0130	"	"	ND	"	86.4%	(51-172)	--	--	"	
<i>Surrogate(s): p-Terphenyl-d14</i>		<i>Recovery: 76.9%</i>		<i>Limits: 50-147%</i>									<i>06/13/06 14:30</i>	

Matrix Spike Dup (6F08043-MSD2) QC Source: BPE0894-02 Extracted: 06/08/06 13:56

Acenaphthene	EPA 8270-SIM	0.606	---	0.0131	mg/kg dry	1x	0.00315	0.871	69.2%	(67-132)	4.38%	(50)	06/13/06 15:01	
Acenaphthylene	"	0.671	---	0.0131	"	"	0.00122	"	76.9%	(65-142)	5.36%	"	"	
Anthracene	"	0.768	---	0.0131	"	"	ND	"	88.2%	(66-158)	8.13%	"	"	
Benzo (a) anthracene	"	0.610	---	0.0131	"	"	ND	"	70.0%	(41-156)	4.01%	"	"	
Benzo (a) pyrene	"	0.697	---	0.0131	"	"	ND	"	80.0%	(52-148)	0.287%	"	"	
Benzo (b) fluoranthene	"	0.738	---	0.0131	"	"	ND	"	84.7%	(53-151)	0.406%	"	"	
Benzo (k) fluoranthene	"	0.748	---	0.0131	"	"	ND	"	85.9%	(46-161)	0.00%	"	"	
Benzo (ghi) perylene	"	0.678	---	0.0131	"	"	ND	"	77.8%	(26-154)	4.06%	"	"	
Chrysene	"	0.716	---	0.0131	"	"	ND	"	82.2%	(55-155)	3.12%	(44)	"	
Dibenz (a,h) anthracene	"	0.654	---	0.0131	"	"	ND	"	75.1%	(27-157)	2.63%	(50)	"	
Fluoranthene	"	0.648	---	0.0131	"	"	ND	"	74.4%	(46-172)	7.53%	"	"	
Fluorene	"	0.637	---	0.0131	"	"	0.00201	"	72.9%	(66-143)	4.66%	(52)	"	
Indeno (1,2,3-cd) pyrene	"	0.654	---	0.0131	"	"	ND	"	75.1%	(24-159)	2.95%	(43)	"	

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/14/06 13:00
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Polynuclear Aromatic Hydrocarbons by GC/MS-SIM - Laboratory Quality Control Results
TestAmerica - Seattle, WA

QC Batch: 6F08043 Soil Preparation Method: EPA 3545

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6F08043-MSD2)			QC Source: BPE0894-02				Extracted: 06/08/06 13:56							
1-Methylnaphthalene	EPA 8270-SIM	0.496	---	0.0131	mg/kg dry	1x	0.00831	0.871	56.0%	(39-140)	8.62%	(50)	06/13/06 15:01	
2-Methylnaphthalene	"	0.564	---	0.0131	"	"	0.0223	"	62.2%	(32-139)	17.3%	"	"	
Naphthalene	"	0.550	---	0.0131	"	"	0.0102	"	62.0%	(38-134)	6.38%	"	"	
Phenanthrene	"	0.658	---	0.0131	"	"	ND	"	75.5%	(63-139)	7.41%	"	"	
Pyrene	"	0.779	---	0.0131	"	"	ND	"	89.4%	(51-172)	4.06%	"	"	
<i>Surrogate(s): p-Terphenyl-d14</i>		<i>Recovery: 80.9%</i>		<i>Limits: 50-147%</i>								<i>06/13/06 15:01</i>		

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name:	Tesoro-Former Bulk Storage Facility, Mt. Vernon		
	Project Number:	0271-015-03	Report Created:	
	Project Manager:	Ryan Bixby	06/14/06 13:00	

Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6E31049 Soil Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6E31049-BLK1)										Extracted: 05/31/06 17:27				
Dry Weight	BSOPSPL00 3R08	101	---	1.00	%	1x	--	--	--	--	--	--	06/01/06 17:00	

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Oxygenates by EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F01072 Soil Preparation Method: EPA 5030B [MeOH]

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6F01072-BLK1)													Extracted: 06/01/06 17:22	
tert-Amyl Methyl Ether	EPA 8260B	ND	---	0.50	mg/kg wet	1x	--	--	--	--	--	--	06/01/06 19:46	
Benzene	"	ND	---	0.02	"	"	--	--	--	--	--	--	"	
tert-Butyl Alcohol	"	ND	---	5.0	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane (EDB)	"	ND	---	0.05	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane (EDC)	"	ND	---	0.05	"	"	--	--	--	--	--	--	"	
Diisopropyl ether	"	ND	---	0.50	"	"	--	--	--	--	--	--	"	
Ethyl tert-butyl ether	"	ND	---	0.50	"	"	--	--	--	--	--	--	"	
Ethanol	"	ND	---	20	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	0.50	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	0.20	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.30	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 100%</i>		<i>Limits: 70-130%</i>			<i>"</i>						<i>06/01/06 19:46</i>	
<i>Toluene-d8</i>		<i>101%</i>		<i>70-130%</i>			<i>"</i>						<i>"</i>	
<i>4-BFB</i>		<i>99.0%</i>		<i>70-130%</i>			<i>"</i>						<i>"</i>	

Blank (6F01072-BLK2)													Extracted: 06/01/06 17:22	
tert-Amyl Methyl Ether	EPA 8260B	ND	---	0.50	mg/kg wet	1x	--	--	--	--	--	--	06/02/06 11:02	
Benzene	"	ND	---	0.02	"	"	--	--	--	--	--	--	"	
tert-Butyl Alcohol	"	ND	---	5.0	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane (EDB)	"	ND	---	0.05	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane (EDC)	"	ND	---	0.05	"	"	--	--	--	--	--	--	"	
Diisopropyl ether	"	ND	---	0.50	"	"	--	--	--	--	--	--	"	
Ethyl tert-butyl ether	"	ND	---	0.50	"	"	--	--	--	--	--	--	"	
Ethanol	"	ND	---	20	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	0.50	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	0.10	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	---	0.20	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.30	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery: 97.5%</i>		<i>Limits: 70-130%</i>			<i>"</i>						<i>06/02/06 11:02</i>	
<i>Toluene-d8</i>		<i>101%</i>		<i>70-130%</i>			<i>"</i>						<i>"</i>	
<i>4-BFB</i>		<i>100%</i>		<i>70-130%</i>			<i>"</i>						<i>"</i>	

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/14/06 13:00

Oxygenates by EPA Method 8260B - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F01072 Soil Preparation Method: EPA 5030B [MeOH]

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
LCS (6F01072-BS1)													Extracted: 06/01/06 17:22			
tert-Amyl Methyl Ether	EPA 8260B	2.0	---	0.50	mg/kg wet	1x	--	2.00	100%	(70-130)	--	--	06/01/06 17:35			
Benzene	"	2.1	---	0.02	"	"	--	"	105%	(75-125)	--	--	"			
tert-Butyl Alcohol	"	8.8	---	5.0	"	"	--	10.0	88.0%	(70-130)	--	--	"			
1,2-Dibromoethane (EDB)	"	2.0	---	0.05	"	"	--	2.00	100%	"	--	--	"			
1,2-Dichloroethane (EDC)	"	2.0	---	0.05	"	"	--	"	100%	"	--	--	"			
Diisopropyl ether	"	2.1	---	0.50	"	"	--	"	105%	"	--	--	"			
Ethyl tert-butyl ether	"	2.0	---	0.50	"	"	--	"	100%	"	--	--	"			
Ethanol	"	87	---	20	"	"	--	100	87.0%	"	--	--	"			
Ethylbenzene	"	2.0	---	0.10	"	"	--	2.00	100%	(75-125)	--	--	"			
Methyl tert-butyl ether	"	2.0	---	0.50	"	"	--	"	100%	(70-130)	--	--	"			
Naphthalene	"	2.0	---	0.10	"	"	--	"	100%	(75-125)	--	--	"			
Toluene	"	2.1	---	0.10	"	"	--	"	105%	(74-121)	--	--	"			
o-Xylene	"	2.1	---	0.10	"	"	--	"	105%	(75-125)	--	--	"			
m,p-Xylene	"	4.3	---	0.20	"	"	--	4.00	108%	"	--	--	"			
Xylenes (total)	"	6.3	---	0.30	"	"	--	6.00	105%	"	--	--	"			
<i>Surrogate(s): 1,2-DCA-d4</i>													<i>Recovery: 93.5%</i>	<i>Limits: 70-130%</i>	<i>"</i>	<i>06/01/06 17:35</i>
<i>Toluene-d8</i>													<i>98.0%</i>	<i>70-130%</i>	<i>"</i>	<i>"</i>
<i>4-BFB</i>													<i>102%</i>	<i>70-130%</i>	<i>"</i>	<i>"</i>

Matrix Spike (6F01072-MS1)													QC Source: BPE0893-01		Extracted: 06/01/06 17:22	
tert-Amyl Methyl Ether	EPA 8260B	2.8	---	0.68	mg/kg dry	1x	ND	2.71	103%	(60-140)	--	--	06/01/06 17:59			
Benzene	"	2.9	---	0.03	"	"	ND	"	107%	(61-130)	--	--	"			
tert-Butyl Alcohol	"	14	---	6.8	"	"	ND	13.6	103%	(60-140)	--	--	"			
1,2-Dibromoethane (EDB)	"	2.8	---	0.07	"	"	ND	2.71	103%	"	--	--	"			
1,2-Dichloroethane (EDC)	"	2.7	---	0.07	"	"	ND	"	99.6%	"	--	--	"			
Diisopropyl ether	"	2.8	---	0.68	"	"	ND	"	103%	"	--	--	"			
Ethyl tert-butyl ether	"	2.8	---	0.68	"	"	ND	"	103%	"	--	--	"			
Ethanol	"	120	---	27	"	"	ND	136	88.2%	"	--	--	"			
Ethylbenzene	"	2.9	---	0.14	"	"	ND	2.71	107%	(50-150)	--	--	"			
Methyl tert-butyl ether	"	2.7	---	0.68	"	"	ND	"	99.6%	(60-140)	--	--	"			
Naphthalene	"	2.9	---	0.14	"	"	ND	"	107%	(50-150)	--	--	"			
Toluene	"	2.9	---	0.14	"	"	ND	"	107%	(62-125)	--	--	"			
o-Xylene	"	2.9	---	0.14	"	"	ND	"	107%	(50-150)	--	--	"			
m,p-Xylene	"	6.1	---	0.27	"	"	ND	5.43	112%	"	--	--	"			
Xylenes (total)	"	9.0	---	0.41	"	"	ND	8.14	111%	"	--	--	"			
<i>Surrogate(s): 1,2-DCA-d4</i>													<i>Recovery: 97.0%</i>	<i>Limits: 70-130%</i>	<i>"</i>	<i>06/01/06 17:59</i>
<i>Toluene-d8</i>													<i>102%</i>	<i>70-130%</i>	<i>"</i>	<i>"</i>
<i>4-BFB</i>													<i>97.4%</i>	<i>70-130%</i>	<i>"</i>	<i>"</i>

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Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/14/06 13:00
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Oxygenates by EPA Method 8260B - Laboratory Quality Control Results
TestAmerica - Seattle, WA

QC Batch: 6F01072 Soil Preparation Method: EPA 5030B [MeOH]

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (6F01072-MSD1)			QC Source: BPE0893-01				Extracted: 06/01/06 17:22							
tert-Amyl Methyl Ether	EPA 8260B	2.7	---	0.68	mg/kg dry	1x	ND	2.71	99.6%	(60-140)	3.64%	(40)	06/01/06 18:26	
Benzene	"	2.9	---	0.03	"	"	ND	"	107%	(61-130)	0.00%	(25)	"	
tert-Butyl Alcohol	"	12	---	6.8	"	"	ND	13.6	88.2%	(60-140)	15.4%	(50)	"	
1,2-Dibromoethane (EDB)	"	2.7	---	0.07	"	"	ND	2.71	99.6%	"	3.64%	(40)	"	
1,2-Dichloroethane (EDC)	"	2.7	---	0.07	"	"	ND	"	99.6%	"	0.00%	"	"	
Diisopropyl ether	"	2.9	---	0.68	"	"	ND	"	107%	"	3.51%	(50)	"	
Ethyl tert-butyl ether	"	2.7	---	0.68	"	"	ND	"	99.6%	"	3.64%	"	"	
Ethanol	"	120	---	27	"	"	ND	136	88.2%	"	0.00%	"	"	
Ethylbenzene	"	2.8	---	0.14	"	"	ND	2.71	103%	(50-150)	3.51%	(25)	"	
Methyl tert-butyl ether	"	2.7	---	0.68	"	"	ND	"	99.6%	(60-140)	0.00%	(50)	"	
Naphthalene	"	2.9	---	0.14	"	"	ND	"	107%	(50-150)	0.00%	(25)	"	
Toluene	"	2.9	---	0.14	"	"	ND	"	107%	(62-125)	0.00%	"	"	
o-Xylene	"	2.8	---	0.14	"	"	ND	"	103%	(50-150)	3.51%	"	"	
m,p-Xylene	"	6.1	---	0.27	"	"	ND	5.43	112%	"	0.00%	"	"	
Xylenes (total)	"	9.0	---	0.41	"	"	ND	8.14	111%	"	0.00%	"	"	
<i>Surrogate(s): 1,2-DCA-d4</i>		<i>Recovery:</i>	<i>97.8%</i>	<i>Limits: 70-130%</i>		<i>"</i>							<i>06/01/06 18:26</i>	
<i>Toluene-d8</i>			<i>101%</i>	<i>70-130%</i>		<i>"</i>							<i>"</i>	
<i>4-BFB</i>			<i>99.3%</i>	<i>70-130%</i>		<i>"</i>							<i>"</i>	

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies

2400 Airport Way South, Suite 200
Seattle, WA/USA 98134-2020

Project Name: **Tesoro-Former Bulk Storage Facility, Mt. Vernon**

Project Number: 0271-015-03

Project Manager: Ryan Bixby

Report Created:

06/14/06 13:00

Notes and Definitions

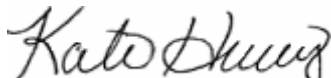
Report Specific Notes:

MS-2 - The Matrix Spike and/or Matrix Spike Duplicate were below the acceptance limits due to sample matrix interference. See Laboratory Control Sample.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Kate Haney, Project Manager

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June 27, 2006

Ryan Bixby
Sound Environmental Strategies
2400 Airport Way South, Suite 200
Seattle, WA/USA 98134-2020

RE: Tesoro-Former Bulk Storage Facility, Mt. Vernon

Enclosed are the results of analyses for samples received by the laboratory on 06/12/06 15:26.
The following list is a summary of the Work Orders contained in this report, generated on 06/27/06
16:18.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
BPF0284	Tesoro-Former Bulk Storage F	0271-015-03

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Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name:	Tesoro-Former Bulk Storage Facility, Mt. Vernon	
	Project Number:	0271-015-03	Report Created:
	Project Manager:	Ryan Bixby	06/27/06 16:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-04-20060609	BPF0284-01	Water	06/09/06 12:39	06/12/06 15:26
MW-05-20060609	BPF0284-02	Water	06/09/06 15:01	06/12/06 15:26
MW-06-20060609	BPF0284-03	Water	06/09/06 11:44	06/12/06 15:26
MW-15-20060609	BPF0284-04	Water	06/09/06 13:30	06/12/06 15:26
MW-16-20060609	BPF0284-05	Water	06/09/06 14:20	06/12/06 15:26
MW-99-20060609	BPF0284-06	Water	06/09/06 15:01	06/12/06 15:26
Trip Blank	BPF0284-07	Water	06/09/06 08:00	06/12/06 15:26

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Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/27/06 16:18
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Gasoline Hydrocarbons (Benzene to Naphthalene), BTEX, MTBE & Naphthalene by NWTPH-G and EPA
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPF0284-01 (MW-04-20060609)		Water				Sampled: 06/09/06 12:39				
Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	60.6	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 14:07	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>		94.8%				58 - 144 %	"			"
<i>4-BFB (PID)</i>		98.0%				68 - 140 %	"			"
BPF0284-01RE1 (MW-04-20060609)		Water				Sampled: 06/09/06 12:39				
Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/21/06 00:41	
<i>Surrogate(s): 4-BFB (FID)</i>		95.3%				58 - 144 %	"			"
<i>4-BFB (PID)</i>		98.8%				68 - 140 %	"			"
BPF0284-02 (MW-05-20060609)		Water				Sampled: 06/09/06 15:01				
Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	1870	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 15:48	
Benzene	"	75.3	----	0.500	"	"	"	"	"	
Toluene	"	8.75	----	0.500	"	"	"	"	"	
Ethylbenzene	"	7.32	----	0.500	"	"	"	"	"	
Xylenes (total)	"	16.5	----	1.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>		173%				58 - 144 %	"			SR-4
<i>4-BFB (PID)</i>		107%				68 - 140 %	"			"
BPF0284-02RE1 (MW-05-20060609)		Water				Sampled: 06/09/06 15:01				
Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/21/06 01:17	
<i>Surrogate(s): 4-BFB (FID)</i>		144%				58 - 144 %	"			"
<i>4-BFB (PID)</i>		115%				68 - 140 %	"			"
BPF0284-03 (MW-06-20060609)		Water				Sampled: 06/09/06 11:44				
Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	ND	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 16:48	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
<i>Surrogate(s): 4-BFB (FID)</i>		96.2%				58 - 144 %	"			"

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon
2400 Airport Way South, Suite 200	Project Number: 0271-015-03
Seattle, WA/USA 98134-2020	Project Manager: Ryan Bixby
	Report Created: 06/27/06 16:18

Gasoline Hydrocarbons (Benzene to Naphthalene), BTEX, MTBE & Naphthalene by NWTPH-G and EPA
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPF0284-03 (MW-06-20060609)		Water			Sampled: 06/09/06 11:44					
4-BFB (PID)		101%			68 - 140 %	1x			06/19/06 16:48	
BPF0284-03RE1 (MW-06-20060609)		Water			Sampled: 06/09/06 11:44					
Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/21/06 01:50	
Surrogate(s): 4-BFB (FID)		93.3%			58 - 144 %	"			"	
4-BFB (PID)		98.5%			68 - 140 %	"			"	
BPF0284-04 (MW-15-20060609)		Water			Sampled: 06/09/06 13:30					
Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	ND	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 22:02	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)		95.5%			58 - 144 %	"			"	
4-BFB (PID)		103%			68 - 140 %	"			"	
BPF0284-04RE1 (MW-15-20060609)		Water			Sampled: 06/09/06 13:30					
Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/21/06 02:23	
Surrogate(s): 4-BFB (FID)		93.5%			58 - 144 %	"			"	
4-BFB (PID)		98.5%			68 - 140 %	"			"	
BPF0284-05 (MW-16-20060609)		Water			Sampled: 06/09/06 14:20					
Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	ND	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 22:32	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)		94.5%			58 - 144 %	"			"	
4-BFB (PID)		102%			68 - 140 %	"			"	

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/27/06 16:18
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Gasoline Hydrocarbons (Benzene to Naphthalene), BTEX, MTBE & Naphthalene by NWTPH-G and EPA
 TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

BPF0284-05RE1 (MW-16-20060609) Water Sampled: 06/09/06 14:20

Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/21/06 02:55	
Surrogate(s): 4-BFB (FID)		94.2%				58 - 144 %	"			"
4-BFB (PID)		98.8%				68 - 140 %	"			"

BPF0284-06 (MW-99-20060609) Water Sampled: 06/09/06 15:01

Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	1840	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 23:01	
Benzene	"	73.0	----	0.500	"	"	"	"	"	
Toluene	"	8.38	----	0.500	"	"	"	"	"	
Ethylbenzene	"	7.26	----	0.500	"	"	"	"	"	
Xylenes (total)	"	15.9	----	1.00	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)		175%				58 - 144 %	"			"
4-BFB (PID)		110%				68 - 140 %	"			" SR-4

BPF0284-06RE1 (MW-99-20060609) Water Sampled: 06/09/06 15:01

Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/21/06 03:27	
Surrogate(s): 4-BFB (FID)		143%				58 - 144 %	"			"
4-BFB (PID)		115%				68 - 140 %	"			"

BPF0284-07 (Trip Blank) Water Sampled: 06/09/06 08:00

Gasoline Range Hydrocarbons	NWTPH-Gx/802 1B	ND	----	50.0	ug/l	1x	6F19036	06/19/06 10:40	06/19/06 21:02	
Benzene	"	ND	----	0.500	"	"	"	"	"	
Toluene	"	ND	----	0.500	"	"	"	"	"	
Ethylbenzene	"	ND	----	0.500	"	"	"	"	"	
Xylenes (total)	"	ND	----	1.00	"	"	"	"	"	
Surrogate(s): 4-BFB (FID)		95.5%				58 - 144 %	"			"
4-BFB (PID)		103%				68 - 140 %	"			"

BPF0284-07RE1 (Trip Blank) Water Sampled: 06/09/06 08:00

Naphthalene	NWTPH-Gx/802 1B	ND	----	5.00	ug/l	1x	6F20041	06/20/06 09:45	06/20/06 22:28	A-01
Surrogate(s): 4-BFB (FID)		93.7%				58 - 144 %	"			"
4-BFB (PID)		97.2%				68 - 140 %	"			"

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/27/06 16:18
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Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)
TestAmerica - Seattle, WA

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
BPF0284-01 (MW-04-20060609)		Water			Sampled: 06/09/06 12:39					
Diesel Range Hydrocarbons	NWTPH-Dx	361	----	253	ug/l	1x	6F19022	06/19/06 09:03	06/21/06 15:48	D-09
Lube Oil Range Hydrocarbons	"	ND	----	505	"	"	"	"	"	
Surrogate(s): 2-FBP		82.6%			50 - 150 %	"			"	
Octacosane		98.4%			50 - 150 %	"			"	
BPF0284-02 (MW-05-20060609)		Water			Sampled: 06/09/06 15:01					
Diesel Range Hydrocarbons	NWTPH-Dx	1410	----	260	ug/l	1x	6F19022	06/19/06 09:03	06/21/06 16:18	
Lube Oil Range Hydrocarbons	"	ND	----	521	"	"	"	"	"	
Surrogate(s): 2-FBP		95.4%			50 - 150 %	"			"	
Octacosane		98.8%			50 - 150 %	"			"	
BPF0284-03 (MW-06-20060609)		Water			Sampled: 06/09/06 11:44					
Diesel Range Hydrocarbons	NWTPH-Dx	1070	----	263	ug/l	1x	6F19022	06/19/06 09:03	06/21/06 16:32	D-09
Lube Oil Range Hydrocarbons	"	1220	----	526	"	"	"	"	"	D-06
Surrogate(s): 2-FBP		89.7%			50 - 150 %	"			"	
Octacosane		113%			50 - 150 %	"			"	
BPF0284-04 (MW-15-20060609)		Water			Sampled: 06/09/06 13:30					
Diesel Range Hydrocarbons	NWTPH-Dx	557	----	258	ug/l	1x	6F19022	06/19/06 09:03	06/21/06 17:02	D-09
Lube Oil Range Hydrocarbons	"	560	----	515	"	"	"	"	"	D-06
Surrogate(s): 2-FBP		95.0%			50 - 150 %	"			"	
Octacosane		107%			50 - 150 %	"			"	
BPF0284-05 (MW-16-20060609)		Water			Sampled: 06/09/06 14:20					
Diesel Range Hydrocarbons	NWTPH-Dx	446	----	258	ug/l	1x	6F19022	06/19/06 09:03	06/21/06 17:15	D-09
Lube Oil Range Hydrocarbons	"	541	----	515	"	"	"	"	"	D-06
Surrogate(s): 2-FBP		83.7%			50 - 150 %	"			"	
Octacosane		108%			50 - 150 %	"			"	
BPF0284-06 (MW-99-20060609)		Water			Sampled: 06/09/06 15:01					
Diesel Range Hydrocarbons	NWTPH-Dx	1370	----	258	ug/l	1x	6F19022	06/19/06 09:03	06/21/06 17:45	
Lube Oil Range Hydrocarbons	"	ND	----	515	"	"	"	"	"	
Surrogate(s): 2-FBP		88.4%			50 - 150 %	"			"	
Octacosane		100%			50 - 150 %	"			"	

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/27/06 16:18
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Gasoline Hydrocarbons (Benzene to Naphthalene), BTEX, MTBE & Naphthalene by NWTPH-G and EPA 8021B - Laboratory Quality Control Result
 TestAmerica - Seattle, WA

QC Batch: 6F19036 Water Preparation Method: EPA 5030B (P/T)

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

Blank (6F19036-BLK1) Extracted: 06/19/06 10:40

Gasoline Range Hydrocarbons	NWTPH-Gx/ 8021B	ND	---	50.0	ug/l	1x	--	--	--	--	--	--	06/19/06 11:57	
Benzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		Recovery: 95.7%		Limits: 58-144%	"								06/19/06 11:57	
4-BFB (PID)		97.2%		68-140%	"								"	

LCS (6F19036-BS1) Extracted: 06/19/06 10:40

Gasoline Range Hydrocarbons	NWTPH-Gx/ 8021B	970	---	50.0	ug/l	1x	--	1000	97.0%	(80-120)	--	--	06/19/06 12:27	
Surrogate(s): 4-BFB (FID)		Recovery: 108%		Limits: 58-144%	"								06/19/06 12:27	

LCS (6F19036-BS2) Extracted: 06/19/06 10:40

Benzene	NWTPH-Gx/ 8021B	28.0	---	0.500	ug/l	1x	--	30.0	93.3%	(80-120)	--	--	06/19/06 12:56	
Toluene	"	27.9	---	0.500	"	"	--	"	93.0%	"	--	--	"	
Ethylbenzene	"	28.1	---	0.500	"	"	--	"	93.7%	"	--	--	"	
Xylenes (total)	"	84.9	---	1.00	"	"	--	90.0	94.3%	"	--	--	"	
Surrogate(s): 4-BFB (PID)		Recovery: 100%		Limits: 68-140%	"								06/19/06 12:56	

Duplicate (6F19036-DUP1) QC Source: BPF0284-01 Extracted: 06/19/06 10:40

Gasoline Range Hydrocarbons	NWTPH-Gx/ 8021B	54.3	---	50.0	ug/l	1x	60.6	--	--	--	11.0%	(25)	06/19/06 14:46	
Benzene	"	ND	---	0.500	"	"	ND	--	--	--	NR	"	"	
Toluene	"	ND	---	0.500	"	"	ND	--	--	--	NR	"	"	
Ethylbenzene	"	ND	---	0.500	"	"	ND	--	--	--	NR	"	"	
Xylenes (total)	"	ND	---	1.00	"	"	ND	--	--	--	69.7%	"	"	RP-4
Surrogate(s): 4-BFB (FID)		Recovery: 104%		Limits: 58-144%	"								06/19/06 14:46	
4-BFB (PID)		93.7%		68-140%	"								"	

Duplicate (6F19036-DUP2) QC Source: BPF0284-02 Extracted: 06/19/06 10:40

Gasoline Range Hydrocarbons	NWTPH-Gx/ 8021B	1810	---	50.0	ug/l	1x	1870	--	--	--	3.26%	(25)	06/19/06 16:18	
Benzene	"	70.6	---	0.500	"	"	75.3	--	--	--	6.44%	"	"	
Toluene	"	8.11	---	0.500	"	"	8.75	--	--	--	7.59%	"	"	
Ethylbenzene	"	6.75	---	0.500	"	"	7.32	--	--	--	8.10%	"	"	
Xylenes (total)	"	15.3	---	1.00	"	"	16.5	--	--	--	7.55%	"	"	
Surrogate(s): 4-BFB (FID)		Recovery: 172%		Limits: 58-144%	"								06/19/06 16:18	SR-4
4-BFB (PID)		104%		68-140%	"								"	

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/27/06 16:18
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Gasoline Hydrocarbons (Benzene to Naphthalene), BTEX, MTBE & Naphthalene by NWTPH-G and EPA 8021B - Laboratory Quality Control Result
 TestAmerica - Seattle, WA

QC Batch: 6F19036 **Water Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (6F19036-MS1)			QC Source: BPF0284-01			Extracted: 06/19/06 10:40								
Gasoline Range Hydrocarbons	NWTPH-Gx/8021B	1060	---	50.0	ug/l	1x	60.6	1000	99.9%	(75-131)	--	--	06/19/06 17:17	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 106%</i>	<i>Limits: 58-144%</i>		<i>"</i>		<i>06/19/06 17:17</i>							
Matrix Spike (6F19036-MS2)			QC Source: BPF0284-02			Extracted: 06/19/06 10:40								
Benzene	NWTPH-Gx/8021B	235	---	2.50	ug/l	5x	75.3	150	106%	(46-130)	--	--	06/19/06 18:33	
Toluene	"	151	---	2.50	"	"	8.75	"	94.8%	(60-124)	--	--	"	
Ethylbenzene	"	154	---	2.50	"	"	7.32	"	97.8%	(56-141)	--	--	"	
Xylenes (total)	"	457	---	5.00	"	"	16.5	450	97.9%	(66-132)	--	--	"	
<i>Surrogate(s): 4-BFB (PID)</i>		<i>Recovery: 104%</i>	<i>Limits: 68-140%</i>		<i>1x</i>		<i>06/19/06 18:33</i>							

QC Batch: 6F20041 **Water Preparation Method: EPA 5030B (P/T)**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6F20041-BLK1)			QC Source: BPF0284-01			Extracted: 06/20/06 09:45								
Gasoline Range Hydrocarbons	NWTPH-Gx/8021B	ND	---	50.0	ug/l	1x	--	--	--	--	--	--	06/20/06 12:09	
Naphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 95.2%</i>	<i>Limits: 58-144%</i>		<i>"</i>		<i>06/20/06 12:09</i>							
<i>4-BFB (PID)</i>		<i>99.8%</i>	<i>68-140%</i>		<i>"</i>		<i>"</i>							
LCS (6F20041-BS1)			QC Source: BPF0284-01			Extracted: 06/20/06 09:45								
Gasoline Range Hydrocarbons	NWTPH-Gx/8021B	909	---	50.0	ug/l	1x	--	1000	90.9%	(80-120)	--	--	06/20/06 12:42	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 101%</i>	<i>Limits: 58-144%</i>		<i>"</i>		<i>06/20/06 12:42</i>							
LCS (6F20041-BS2)			QC Source: BPF0284-01			Extracted: 06/20/06 09:45								
Naphthalene	NWTPH-Gx/8021B	27.6	---	5.00	ug/l	1x	--	30.0	92.0%	(60-120)	--	--	06/20/06 13:17	
<i>Surrogate(s): 4-BFB (PID)</i>		<i>Recovery: 99.3%</i>	<i>Limits: 68-140%</i>		<i>"</i>		<i>06/20/06 13:17</i>							
Duplicate (6F20041-DUP1)			QC Source: BPF0326-15			Extracted: 06/20/06 09:45								
Gasoline Range Hydrocarbons	NWTPH-Gx/8021B	451	---	50.0	ug/l	1x	470	--	--	--	4.13% (25)	--	06/20/06 16:58	
Naphthalene	"	ND	---	5.00	"	"	ND	--	--	--	1.24% "	--	"	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 94.2%</i>	<i>Limits: 58-144%</i>		<i>"</i>		<i>06/20/06 16:58</i>							
<i>4-BFB (PID)</i>		<i>98.5%</i>	<i>68-140%</i>		<i>"</i>		<i>"</i>							
Duplicate (6F20041-DUP2)			QC Source: BPF0326-16			Extracted: 06/20/06 09:45								
Gasoline Range Hydrocarbons	NWTPH-Gx/8021B	522	---	50.0	ug/l	1x	554	--	--	--	5.95% (25)	--	06/20/06 18:05	

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Gasoline Hydrocarbons (Benzene to Naphthalene), BTEX, MTBE & Naphthalene by NWTPH-G and EPA 8021B - Laboratory Quality Control Result
 TestAmerica - Seattle, WA

QC Batch: 6F20041 Water Preparation Method: EPA 5030B (P/T)

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (6F20041-DUP2)			QC Source: BPF0326-16				Extracted: 06/20/06 09:45							
Naphthalene	NWTPH-Gx/ 8021B	ND	---	5.00	ug/l	1x	ND	--	--	--	4.22%	(25)	06/20/06 18:05	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 99.3%</i>		<i>Limits: 58-144%</i>		<i>"</i>							<i>06/20/06 18:05</i>	
<i>4-BFB (PID)</i>		<i>100%</i>		<i>68-140%</i>		<i>"</i>							<i>"</i>	
Matrix Spike (6F20041-MS1)			QC Source: BPF0326-15				Extracted: 06/20/06 09:45							
Gasoline Range Hydrocarbons	NWTPH-Gx/ 8021B	1440	---	50.0	ug/l	1x	470	1000	97.0%	(75-131)	--	--	06/20/06 19:10	
<i>Surrogate(s): 4-BFB (FID)</i>		<i>Recovery: 99.8%</i>		<i>Limits: 58-144%</i>		<i>"</i>							<i>06/20/06 19:10</i>	
Matrix Spike (6F20041-MS2)			QC Source: BPF0326-15				Extracted: 06/20/06 09:45							
Naphthalene	NWTPH-Gx/ 8021B	31.8	---	5.00	ug/l	1x	0.643	30.0	104%	(49-133)	--	--	06/20/06 19:45	
<i>Surrogate(s): 4-BFB (PID)</i>		<i>Recovery: 101%</i>		<i>Limits: 68-140%</i>		<i>"</i>							<i>06/20/06 19:45</i>	

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Sound Environmental Strategies 2400 Airport Way South, Suite 200 Seattle, WA/USA 98134-2020	Project Name: Tesoro-Former Bulk Storage Facility, Mt. Vernon Project Number: 0271-015-03 Project Manager: Ryan Bixby	Report Created: 06/27/06 16:18
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Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) - Laboratory Quality Control Results
 TestAmerica - Seattle, WA

QC Batch: 6F19022 Water Preparation Method: EPA 3520C

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (6F19022-BLK1)													Extracted: 06/19/06 09:03	
Diesel Range Hydrocarbons	NWTPH-Dx	ND	---	250	ug/l	1x	--	--	--	--	--	--	06/21/06 14:23	
Lube Oil Range Hydrocarbons	"	ND	---	500	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery:</i>	<i>75.6%</i>	<i>Limits: 50-150%</i>		<i>"</i>							<i>06/21/06 14:23</i>	
<i>Octacosane</i>		<i>Recovery:</i>	<i>88.0%</i>	<i>50-150%</i>		<i>"</i>							<i>"</i>	
LCS (6F19022-BS1)													Extracted: 06/19/06 09:03	
Diesel Range Hydrocarbons	NWTPH-Dx	1530	---	250	ug/l	1x	--	2000	76.5%	(58-125)	--	--	06/21/06 14:38	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery:</i>	<i>80.8%</i>	<i>Limits: 50-150%</i>		<i>"</i>							<i>06/21/06 14:38</i>	
<i>Octacosane</i>		<i>Recovery:</i>	<i>78.4%</i>	<i>50-150%</i>		<i>"</i>							<i>"</i>	
LCS Dup (6F19022-BSD1)													Extracted: 06/19/06 09:03	
Diesel Range Hydrocarbons	NWTPH-Dx	1540	---	250	ug/l	1x	--	2000	77.0%	(58-125)	0.651% (40)		06/21/06 15:06	
<i>Surrogate(s): 2-FBP</i>		<i>Recovery:</i>	<i>83.6%</i>	<i>Limits: 50-150%</i>		<i>"</i>							<i>06/21/06 15:06</i>	
<i>Octacosane</i>		<i>Recovery:</i>	<i>83.2%</i>	<i>50-150%</i>		<i>"</i>							<i>"</i>	

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Sound Environmental Strategies

2400 Airport Way South, Suite 200
Seattle, WA/USA 98134-2020

Project Name: **Tesoro-Former Bulk Storage Facility, Mt. Vernon**

Project Number: 0271-015-03
Project Manager: Ryan Bixby

Report Created:
06/27/06 16:18

Notes and Definitions

Report Specific Notes:

- A-01 - Sample had headspace due to multiple reshots with limited sample.
- D-06 - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
- D-09 - Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- RP-4 - Due to the low levels of analyte in the sample, the duplicate RPD calculation does not provide useful information.
- SR-4 - Due to sample matrix effects, the surrogate recovery was outside laboratory control limits.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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 11922 E 1st Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
 9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
 20332 Empire Ave, Ste F1, Bend, OR 97701-5712 541-383-9310 FAX 382-7588
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: **BPEO 284**

NCA CLIENT: Sound Environmental Strategies		INVOICE TO: Anne Wilkinson		TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses <input checked="" type="checkbox"/> STD <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 Petroleum Hydrocarbon Analyses <input checked="" type="checkbox"/> STD <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 OTHER Specify: _____ <small>* Turnaround Request less than standard may incur Rush Charge.</small>							
REPORT TO: Ryan Bixby		ADDRESS: 90 Tesoro									
ADDRESS: 2400 Airport Way South, Suite 200		ADDRESS: 3450 S. 344 Way, Suite 201									
PHONE: 206.306.1900		P.O. NUMBER:									
FAX: 206.306.1907											
PROJECT NAME: New Mt. Vernon (Fir St.)		PRESERVATIVE									
PROJECT NUMBER: 0271-015-03		HEI HEI HEI									
SAMPLED BY: L. Namba / A. Liljgren		REQUESTED ANALYSES									
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	TPH-G	BTEX*	TPH-DX				MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1 MW-04-20060609	06/09/06 @ 1239	/	/	/				W	5	MW-04	01
2 MW-05-20060609	06/09/06 @ 1501	/	/	/				W	5	MW-05	02
3 MW-06-20060609	06/09/06 @ 1144	/	/	/				W	5	MW-06	03
4 MW-15-20060609	06/09/06 @ 1330	/	/	/				W	5	MW-15	04
5 MW-16-20060609	06/09/06 @ 1420	/	/	/				W	5	MW-16	05
6 MW-99-20060609	06/09/06 @ 1501	/	/	/				W	5	MW-99	06
7 Trip Blank	06/09/06 @ 0800	/	/	/				W	3	Trip Blank	07
8											
9											
10											
RELEASED BY: Larry Namba	DATE: 06/12/06	RECEIVED BY: Colette Weaver	DATE: 06-12-06								
PRINT NAME: Larry Namba	FIRM: SES	TIME: 1526	PRINT NAME: Colette Weaver	FIRM: TA-S	TIME: 1920						
RELEASED BY:	DATE:	RECEIVED BY:	DATE:								
PRINT NAME:	FIRM:	PRINT NAME:	FIRM:								
ADDITIONAL REMARKS: BTEX* - w/Naphthalene										TEMP:	
COC REV 09/04											PAGE 1 OF 1