



REMEDIATION PROGRESS REPORT SECOND QUARTER 2010

DEFENSE FUEL SUPPORT POINT NORWALK
NORWALK, CALIFORNIA

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**REMEDATION PROGRESS REPORT –
SECOND QUARTER 2010
DEFENSE FUEL SUPPORT POINT, NORWALK
NORWALK, CALIFORNIA**

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This report was prepared by the staff of AMEC Geomatrix under the supervision of the Engineer and/or Geologist whose signature appears hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, after being prepared in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.



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**REMEDIATION PROGRESS REPORT
SECOND QUARTER 2010
SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California**

1.0 INTRODUCTION

AMEC Geomatrix, Inc. (AMEC), has prepared this report on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), to summarize remediation activities performed at the Defense Fuel Support Point, Norwalk (DFSP) located at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1) during the second quarter 2010 reporting period. This progress report is submitted pursuant to a request from the California Regional Water Quality Control Board – Los Angeles Region (RWQCB) in its letter dated October 25, 2006 (RWQCB, 2006) and in accordance with the Second Addendum to the Remedial Action Plan (Second Addendum) dated November 30, 2006 (Geomatrix Consultants, Inc. [Geomatrix], 2006). Implementation of the Second Addendum was approved by the RWQCB on April 2, 2007. Additional background information can be found in the Second Addendum and in previously submitted semi-annual groundwater monitoring reports for the site.

This report summarizes the remediation systems present at the site and describes implementation of the Second Addendum for the period April through June 2010 with documentation of the following tasks:

- operations and maintenance (O&M) of remediation systems performed by SFPP field personnel; and
- remediation system evaluation.

The remediation activities performed during April through June 2010 and the progress achieved through those activities are summarized in the following sections.

2.0 REMEDIATION SYSTEMS

SFPP currently operates remediation systems consisting of soil vapor extraction (SVE), total fluids extraction (TFE; extraction of free product and/or groundwater using a top-loading pump), groundwater extraction (GWE; extraction of groundwater using a bottom-loading pump), and treatment of extracted soil vapors and groundwater to address two specific areas at and near the site: the south-central area and the southeastern area. Operation of the West

Side Barrier groundwater extraction system (WSB system) for remediation of the western off-site area was discontinued in August 2008. During second quarter 2010, two WSB wells were temporarily operated to control the selenium concentration in extracted groundwater as discussed in the Selenium Management Evaluation Update submitted to the RWQCB on June 10, 2010.

Remediation in the south-central and southeastern areas consists of SVE and TFE (GWE is also performed at two well locations in the south-central area). At several well locations, SVE is coupled with TFE (or GWE at two locations) in a process referred to as dual-phase extraction (DPE). SVE is performed using a blower to remove soil vapors from the south-central and southeastern areas. The extracted vapors are conveyed to a knock-out tank that separates entrained moisture from the soil vapors. Accumulated moisture in the knock-out tank is treated by the main groundwater treatment system described below. The soil vapors are then pre-heated in a heat exchanger and treated in a catalytic oxidizer where volatile organic compounds (VOCs) are converted to carbon dioxide and water prior to being discharged to the atmosphere. Operation of the SVE and treatment system is conducted in accordance with Permit to Operate No. F13759 issued by the South Coast Air Quality Management District (SCAQMD).

The main groundwater treatment system handles free product and groundwater recovered from the south-central and southeastern parts of the site. Free product and groundwater recovered by pneumatically-operated top-loading total fluids pumps and bottom-loading groundwater pumps are piped to an oil/water separator. Free product, if any, from the oil/water separator is collected in a storage tank and recycled at an off-site location. Water from the oil/water separator is treated using liquid-phase granular activated carbon (GAC). Treated water is routed through an on-site 8,000-gallon effluent storage tank prior to discharge under a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0063509, CI No. 7497).

A summary of remediation wells in the south-central, southeastern, and West Side Barrier areas is presented in Table 1. Table 1 includes well identifications, well construction details, well use, and operational status at the end of the second quarter 2010. As discussed in the next section, certain TFE and GWE wells in the south-central area were shut down due to elevated selenium concentrations detected in extracted groundwater.

3.0 OPERATIONS AND MAINTENANCE

Tasks performed for operation and maintenance of the remediation systems during the reporting period included:

- weekly maintenance and monitoring of the south-central and southeastern SVE, TFE/GWE, and soil vapor and groundwater treatment systems (collectively referred to as remediation systems);
- inspection of groundwater extraction pumps;
- measurements of individual well vapor concentrations;
- collection and analysis of system influent vapor and groundwater samples; and
- gauging of selected remediation wells.

During the reporting period, remediation system inspections were performed on a weekly basis and vapor flow rate, vacuum, volumes of extracted groundwater, hours of operation, and other system parameters were recorded on an approximately weekly basis during system operation. Remediation system operation activities for the second quarter 2010 are summarized in Tables 2 and 3. The remediation systems operated during second quarter 2010 with the following exceptions.

- The TFE/GWE system shut down on multiple occasions due to high level alarms for the transfer tank. Corrective actions taken included installing a new bag filter housing on April 29, 2010 and new water conveyance piping to bypass the air stripper to improve the flow of water through the TFE/GWE system. Further troubleshooting on May 12, 2010 showed that the high level switch for the transfer tank was malfunctioning and the switch was replaced on May 14, 2010.
- The remediation systems shut down on multiple occasions due to main breaker trips. An electrical contractor began investigating the circuit breakers on April 16, 2010. On June 14, 2010 a generator was installed at the site to power the remediation systems after breaker trips continued to shut down the systems. The generator was temporarily shut down between June 20 and June 22, 2010 due to a fuel leak at the generator. The generator will continue to power the remediation systems until the electrical issues are resolved.
- The TFE/GWE system was shut down on April 29, 2010 for pump repairs at multiple TFE/GWE wells and restarted on May 3, 2010.
- The SVE system was shut down on May 21, 2010 and the TFE/GWE system was shut down on May 25, 2010 to facilitate groundwater gauging in several extraction wells as a part of the semi-annual groundwater monitoring event. Both systems were restarted on June 1, 2010.
- The TFE/GWE system was shut down during June 11, 2010 to June 15, 2010 to evaluate selenium concentrations in the extraction wells. During this shutdown period, groundwater samples were collected from TFE and GWE wells and analyzed for selenium. Based on the results of these analyses, the following wells were selected for pumping when the system was restarted on

June 15, 2010: MW-SF-14, GMW-O-11, GMW-O-15, GMW-O-18, and GMW-36. These wells were selected because their aggregate selenium concentration was expected to meet the discharge limits for selenium specified in the NPDES permit noted above (4.1 micrograms per liter [$\mu\text{g/L}$]). During the shutdown period, additional repairs and enhancements were made to the TFE/GWE system including cleaning and repair of TFE pumps. Additionally, remediation wells GMW-O-15 and GMW-36 were redeveloped on June 17, 2010.

- The SVE system shut down on multiple occasions due to high temperature and no flame alarms. On several of these occasions, the SVE system was reset and restarted within one day. The SVE system was shut down to troubleshoot these alarms during June 11 through June 25, 2010 and from June 29, 2010 through the end of second quarter 2010.

Overall, during second quarter 2010, the SVE system operated 56% of the time (65% excluding planned shutdowns for groundwater monitoring) while the TFE/GWE system operated 49% of the time (58% excluding planned shutdowns for selenium evaluation and groundwater monitoring).

Vapor samples from the SVE system influent and water samples from TFE/GWE system influent were collected during the second quarter 2010 when the systems were in operation. During second quarter 2010, influent vapor samples were collected in May and June 2010 when both SVE and TFE/GWE systems were operating. Influent water samples were collected in April, May, and June 2010 when the TFE/GWE system was operating. The vapor and water samples were delivered to Calscience Environmental Laboratories, Inc. (Calscience), a laboratory certified by the California Department of Public Health Environmental Laboratory Accreditation Program, for analysis. Calscience analyzed the vapor samples for the following:

- fixed gases (methane, carbon dioxide, oxygen and argon) using ASTM D-1946;
- total petroleum hydrocarbons quantified as gasoline (TPHg) using EPA Method TO-3; and
- VOCs using EPA Method TO-15.

Calscience analyzed the water samples for the following:

- TPHg and TPH characterized as fuel products (TPHfp) using EPA Method 8015(M); and
- VOCs using EPA Method 8260B.

Analytical results for the influent vapor and water samples are summarized in Tables 4 and 5, respectively. The laboratory analytical reports and chain-of-custody documents for these samples are included in Appendix A.

VOC concentrations in vapors extracted from individual SVE wells were measured in the field using a photoionization detector (PID) calibrated using 50 parts per million by volume (ppmv) of hexane. The individual well vapor readings results are summarized in Table 6. Depths to product and groundwater were measured to the nearest 0.01 foot from the top of the well casing using an interface probe in selected wells. The gauging results are summarized in Table 7.

4.0 SUMMARY OF REMEDIATION PROGRESS

Based on weekly monitoring of the influent vapor concentration, vapor extraction flow rate, and hours of operation, the total mass of VOCs removed by SVE was approximately 480 pounds during the second quarter of 2010, for a cumulative mass removed of approximately 19,631 pounds since implementing the Second Addendum system upgrades and over 3 million pounds since the SVE system began operation in 1995. The cumulative mass removed by SVE does not include the mass removed by biodegradation.

Approximately 1,079,027 gallons of groundwater were extracted during the second quarter 2010. This total includes approximately 791,007 gallons of water from the south-central area, 285,776 gallons of water from the southeastern area, and 2,244 gallons of water from the West Side Barrier area.

Groundwater extraction was discontinued in the West Side Barrier region during third quarter 2008 based on the reduced lateral extent and low concentrations of methyl tert-butyl ether (MTBE) and 1,2-dichloroethane (1,2-DCA) west of the site. Detected concentrations of MTBE and 1,2-DCA in wells west of the site have been below the conservative, site-specific, Risk-Based Corrective Action (RBCA) goals (Geomatrix, 1999) since August 2005. The lower (more conservative) RBCA goals for MTBE and 1,2-DCA are 40 micrograms per liter ($\mu\text{g/L}$) and 70 $\mu\text{g/L}$, respectively. As noted above, groundwater extraction was temporarily operated at two West Side Barrier wells during the second quarter of 2010 to evaluate the efficacy of blending water with lower-selenium-concentrations from these wells with groundwater with elevated selenium concentrations extracted from the south-central and southeastern areas. 1,2-DCA and MTBE concentrations in the western area continue to be monitored and other wells in the West Side Barrier system will be restarted if necessary.

Removal of free product using TFE continued during second quarter 2010. Because the amount of free product removed by TFE was significantly less than the volume of groundwater

extracted, free product was emulsified in the relatively larger volume of groundwater extracted and was not observed to accumulate in the product holding tank of the groundwater treatment system. Therefore, the amount of free product removed by TFE was not estimated.

Based on the TPHg results for influent water samples and total groundwater extracted, the mass of TPHg removed by TFE and GWE in the south-central, southeastern, and west side barrier areas was approximately 73 pounds during second quarter 2010 for a cumulative mass removed from these areas of approximately 999 pounds since implementing system upgrades described in the Second Addendum. TPHfp also was detected in the influent water samples; however, TPHfp results were not used to calculate mass removal for dissolved petroleum hydrocarbons because the ranges of hydrocarbons for TPHg and TPHfp overlap. Because the non-overlapping portion of the TPHfp range was not used in the mass removal calculation and the amount of free product removed by TFE was not estimated, the total mass of petroleum hydrocarbons removed by TFE may be underestimated.

5.0 SYSTEM EVALUATION AND OPTIMIZATION

During second quarter 2010, VOC concentrations were measured in individual wells using a PID in May 2010 as shown on Table 6. The operation status of the SVE wells at the end of the second quarter 2010 is also shown on Table 6. Because PID readings recorded on May 11, 2010 indicate VOC concentrations are close to or higher than 100 ppmv in several SVE wells, the SVE system will be operated until influent VOC concentrations reach low asymptotic levels before conducting another rebound test.

Groundwater monitoring in the West Side Barrier region during second quarter 2010 supports the continued shutdown of groundwater extraction in the region. 1,2-DCA and MTBE concentrations in the western area continue to be monitored and the West Side Barrier system will be restarted if necessary.

As shown in Table 7, groundwater elevations and product thicknesses in the south-central area have generally decreased since implementing the Second Addendum. During the second quarter 2010, free product was detected in two remediation wells. TFE will continue to be performed in areas with remaining free product. Selected remediation wells will continue to be monitored quarterly to assess remediation performance and remediation pump settings will be adjusted accordingly to optimize free product recovery and enhance hydraulic control of dissolved plumes.

The systems currently consist of twenty wells operated for product recovery and hydraulic control in the south-central part of the site (including eighteen wells operated for total fluids extraction and two wells operated for groundwater extraction) and three wells equipped with

total fluids extraction pumps operated for product recovery and hydraulic control in the southeastern part of the site (Table 1). Occasionally, certain extraction wells are temporarily shut down due to elevated selenium concentrations detected in extracted groundwater, as described previously in this report.

6.0 PLANNED THIRD QUARTER 2010 ACTIVITIES

During the third quarter 2010, SFPP plans to continue to focus remedial efforts on the south-central and southeastern areas. Concentrations of 1,2 DCA and MTBE in the western area will continue to be monitored and the West Side Barrier system will be restarted if necessary. The TFE, GWE, and SVE systems for the south-central and southeastern areas will continue to operate. The TFE/GWE system will be monitored and the pumping configuration adjusted as necessary to maintain a concentration of selenium in the treatment system effluent below the NPDES permit discharge limits while additional extraction wells are brought back into service. Operation of the TFE system in the southeastern area will be monitored closely and adjustments will be made to improve fluid recovery. If SVE data indicate that VOC concentrations in the SVE system influent have decreased and reached low asymptotic levels, the SVE system will be shut down and rebound testing will commence soon thereafter. System inspections will continue on a weekly basis and system evaluation parameters will be collected as needed. The remediation activities and progress for third quarter 2010 will be described in the third quarter 2010 remediation progress report to be submitted by October 15, 2010.

7.0 REFERENCES

AMEC, Letter dated June 10, 2010 to Mr. Paul Cho, P.G., California Regional Water Quality Control Board; Re: Selenium Management Evaluation Update, SFPP Norwalk, 15306 Norwalk Boulevard, Norwalk, California

AMEC, 2010, Remediation Progress Report, First Quarter 2010, April 15.

California Regional Water Quality Control Board, Los Angeles Region, Letter dated October 25, 2006 to Mr. Kola Olowu, Defense Energy Support Center, Los Angeles, and Mr. Michael Pitta, Kinder Morgan Energy Partners; Conditional Approval of Revised Remedial Action Plan and Second Addendum to Remedial Action Plan for the Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard, Norwalk (SLIC No. 0286A, DOD No. 16638)

Geomatrix Consultants, Inc., 2006, Second Addendum to Remedial Action Plan, Defense Fuel Support Point Norwalk, Norwalk, California, November 30.

Geomatrix Consultants, Inc., 1999, Risk-Based Corrective Action, Western 1,2-DCA and MTBE Plumes, February.

Kinder Morgan Energy Partners, Letter dated April 1, 2010 to Mr. Paul Cho, California Regional Water Quality Control Board; Transmittal of Selenium Management Summary Report for the SFPP, L.P. Norwalk Station, 15306 Norwalk Boulevard, Norwalk, California

TABLES

**TABLE 1
REMEDIATION WELL CONSTRUCTION AND STATUS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Remediation Area	Remediation Well ID	Installation Date	Top of Well Casing Elevation (ft msl)	Well Screen Interval (ft bgs)	Remediation Well Function	Well Operation Status at End of Second Quarter 2010 ¹
South-Central	MW-SF-1	6/18/1990	78.93	25 - 40	SVE	OFF
	MW-SF-2	6/18/1990	78.53	25 - 40	SVE; TFE	OFF; OFF
	MW-SF-3	6/18/1990	78.12	25 - 40	SVE; TFE	OFF; OFF
	MW-SF-4	6/19/1990	79.38	25 - 40	SVE	OFF
	MW-SF-5	9/19/1990	79.74	23 - 38	SVE	OFF
	MW-SF-6	9/19/1990	76.80	25 - 40	SVE; TFE	OFF; OFF
	MW-SF-9	6/15/1995	74.10	--	SVE	OFF
	MW-SF-10	9/23/2003	76.53	10 - 30	SVE	OFF
	MW-SF-11	6/19/2007	78.56	20 - 40	SVE; TFE	OFF; OFF
	MW-SF-12	6/18/2007	78.07	20 - 40	SVE; TFE	OFF; OFF
	MW-SF-13	6/19/2007	73.40	20 - 40	SVE; TFE	OFF; OFF
	MW-SF-14	6/21/2007	78.16	20 - 40	SVE; TFE	OFF; ON
	MW-SF-15	6/21/2007	78.27	20 - 40	SVE; TFE	OFF; OFF
	MW-SF-16	6/20/2007	78.21	20 - 40	SVE; TFE	OFF; OFF
	GMW-9	7/8/1991	74.44	20 - 50	SVE; TFE	OFF; OFF
	GMW-10	7/8/1991	74.67	25 - 50	SVE	OFF
	GMW-22	8/2/1991	74.17	25 - 60	SVE; TFE	OFF; OFF
	GMW-24	8/5/1991	74.04	25 - 60	SVE; TFE	OFF; OFF
	GMW-25	1/10/1992	74.29	20 - 50	SVE; GWE	OFF; OFF
	GWR-3	1/10/1992	74.93	20 - 50	SVE; GWE	OFF; OFF
	VEW-1	--	--	--	SVE	OFF
	VEW-2	--	--	--	SVE	OFF
	MW-O-1	1/22/1991	75.48	25 - 40	SVE; TFE	OFF; OFF
MW-O-2	1/23/1991	71.90	25 - 40	SVE; TFE	OFF; OFF	
GMW-O-11	5/20/1992	74.17	20 - 50	SVE; TFE	OFF; ON	
GMW-O-12	5/21/1992	73.49	20 - 50	SVE	OFF	
GMW-O-20	6/15/1995	73.32	--	SVE; TFE	OFF; OFF	
GMW-O-21	10/1/1997	71.43	26 - 46	TFE	OFF	
GMW-O-23	6/25/2007	73.63	20 - 40	SVE; TFE	OFF; OFF	
MW-18 (MID)	6/10/1991	75.67	50 - 60	SVE	OFF	
HW-2	--	--	--	SVE	OFF	
Southeastern	GMW-O-15	4/19/1994	74.23	20 - 50	SVE; TFE	OFF; ON
	GMW-O-18	7/25/1994	74.36	21 - 40	SVE; TFE	OFF; ON
	GMW-36	4/11/1994	74.53	20 - 50	TFE	ON
	GMW-SF-9	4/1/2003	73.00	37 - 46	GWE	OFF
	GMW-SF-10	4/2/2003	75.77	37 - 46	GWE	OFF
West Side Barrier	BW-2	5/20/1996	73.57	27 - 47	GWE	OFF
	BW-3	5/17/1996	74.16	31 - 50	GWE	OFF
	BW-4	5/20/1996	74.61	28 - 47	GWE	OFF
	BW-5	5/23/1996	73.59	27 - 46	GWE	OFF
	BW-6	5/22/1996	73.48	28 - 47	GWE	OFF
	BW-7	5/22/1996	74.65	27 - 46	GWE	OFF
	BW-8	5/21/1996	75.08	27 - 46	GWE	OFF
	BW-9	5/21/1996	76.19	27 - 46	GWE	OFF

Notes

1. The well operations listed correspond to the well functions indicated in the previous column. Based on information provided by SFPP, L.P.

Abbreviations

-- = information not available
ft msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929.
ft bgs = feet below ground surface
GWE = groundwater extraction
SVE = soil vapor extraction
TFE = total fluids extraction



**TABLE 2
VAPOR REMEDIATION SYSTEM OPERATION SUMMARY**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent TPHg Concentration (ppmv) ¹	Influent FID or PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum ("H ₂ O)	Mass Removed (pounds) ²
2007 Totals³	58,319	2,058	--	--	--	--	3,742
2008 Totals	64,233	5,915	--	--	--	--	5,878
2009 Totals	68,858	4,625	--	--	--	--	9,387
First Quarter 2010 Totals	70,038	1,180	--	--	--	--	144
04/07/10	70,147.4	109.2	--	49	613	25	49
04/16/10	70,276.0	128.6	--	30	779	30	45
04/23/10	70,441.4	165.4	--	30	536	25	40
04/28/10	70,554.5	113.1	--	21	965	34	34
05/04/10	70,663.0	108.5	13	23	566	25	21
05/11/10	70,799.8	136.8	--	39	1,007	30	81
05/18/10	70,931.7	131.9	--	128	318	30	81
05/21/10	70,998.2	66.5	--	6	498	33	3
06/01/10	71,003.4	5.2	--	8	629	30	0
06/08/10	71,169.3	165.9	--	32	1,576	30	127
06/11/10	71,220.2	50.9	--	--	--	--	--
06/25/10	71,220.2	0.0	--	--	--	--	0
06/29/10	71,267.8	47.6	--	--	--	--	--
Second Quarter 2010 Totals	--	1,230	--	--	--	--	480
Cumulative Mass Removed Since Implementation of RAP Upgrades⁴							19,631

Notes:

- The TPHg concentration reflects analytical results for vapor samples collected from the influent of the Vapor Remediation System. Refer to Table 4 for a summary of analytical results for influent vapor samples.
- The total mass removed is based on influent FID or PID readings, hours of operation, and flow rate.
- The 2007 total includes only operation after upgrades were made to the South-Central system.
- Upgrades to the South-Central system are described in the Second Addendum to Remedial Action Plan.

Data reported based on information provided by SFPP, L.P.

Abbreviations:

TPHg = total petroleum hydrocarbons as gasoline (C4-C12)
 ppmv = parts per million by volume
 FID = flame ionization detector
 PID = photo ionization detector
 scfm = standard cubic feet per minute
 H₂O = inches of water
 -- = not applicable or not available

**TABLE 3
GROUNDWATER REMEDIATION SYSTEM OPERATION SUMMARY**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

System Inspection Date	Groundwater Removed from the South-Central Area (gallons)	Groundwater Removed from the Southeastern Area (gallons)	Groundwater Removed from the West Side Barrier Area (gallons)	Influent TPHg Concentration (µg/L) ¹	TPHg Removed from the South-Central, Southeastern, and West Side Barrier Areas (pounds) ²
2007 Totals³	2,080,762	529,411	630,877	--	395
2008 Totals	5,391,860	700,882	405,954⁴	--	311
2009 Totals	8,044,836	770,869	0	--	161
First Quarter 2010 Totals	739,900	193,233	0	--	58
04/01/10	27,240	12,165	0	7,000	2.30
04/02/10	18,323	8,108	0	7,000	1.54
04/07/10	23,087	10,746	0	7,000	1.97
04/13/10	0	0	0	7,000	0.00
04/16/10	6,239	4,254	0	7,000	0.61
04/20/10	40,691	30,143	0	10,000	5.90
04/23/10	699	261	0	10,000	0.08
04/26/10	74,271	22,738	0	10,000	8.09
04/28/10	48,558	14,884	0	10,000	5.29
04/29/10	24,954	7,695	0	10,000	2.72
05/03/10	368	161	0	10,000	0.04
05/04/10	661	140	0	10,000	0.07
05/07/10	1,875	388	0	10,000	0.19
05/11/10	3,186	1,743	0	10,000	0.41
05/12/10	6,521	1,511	64	10,000	0.67
05/14/10	26,397	253	56	8,500	1.89
05/18/10	65,925	21,266	1,187	8,500	6.26
05/21/10	56,437	19,923	0	8,500	5.41
05/25/10	16,625	12,132	734	8,500	2.09
06/01/10	135	199	0	8,500	0.02
06/07/10	83,229	4	0	8,500	5.90
06/08/10	17,325	0	0	8,500	1.23
06/09/10	14,941	733	0	8,500	1.11
06/11/10	25,226	10,240	0	8,500	2.51
06/15/10	2,146	981	176	8,500	0.23
06/17/10	36,771	14,015	26	8,500	3.60
06/22/10	60,628	34,143	1	8,500	6.71
06/25/10	46,026	25,350	0	4,600	2.74
06/29/10	62,523	31,600	0	4,600	3.61
Totals	791,007	285,776	2,244	--	73
Cumulative TPHg Removed Since Implementation of RAP Upgrades⁵					999

Notes:

- The TPHg concentration reflects analytical results for samples collected from the influent of the Total Fluids Extractions (TFE) system that extracts groundwater from the south-central, southeastern, and west side barrier areas. Refer to Table 5 for a summary of analytical results for the groundwater samples. For a given period the most recent analytical result available is used to calculate TPHg removed.
- The mass of TPHg removed (pounds) is based on concentrations of dissolved TPHg in the most recent TFE system influent samples and the volume of groundwater extracted by TFE. Total petroleum hydrocarbons characterized as fuel products (TPHfp) also were detected in the TFE system influent samples (see Table 5) but were not used in estimating the mass of petroleum hydrocarbons removed from groundwater.
- The 2007 total includes only operation after upgrades were made to the South-Central system.
- Groundwater removal in the West Side Barrier Area was discontinued in August, 2008. Groundwater extraction from West Side Barrier Area wells BW-3 and BW-6 was resumed on May 14, 2010 to evaluate the efficacy of blending water with lower-selenium-concentrations from these wells with groundwater extracted from the South-Central and Southeastern areas.
- Upgrades to the South-Central remediation system are described in the Second Addendum to Remedial Action Plan.

Data reported based on information provided by SFPP, L.P.

Abbreviations:

TPHg = total petroleum hydrocarbons as gasoline (C4-C12).
µg/L = micrograms per liter

**TABLE 4
EXTRACTED VAPOR ANALYTICAL RESULTS¹**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Date Sampled	Total Fluids Extraction System Status	ASTM D-1946			EPA TO-3	EPA TO-15 (VOCs) ²				
		Methane (%v)	Carbon Dioxide (%v)	Oxygen & Argon (%v)	TPHg (ppmv)	Benzene (ppbv)	Ethylbenzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
8/3/2007	ON	<0.5 ³	<0.5	22.0	63	650	220	1,100	1,420	55
9/5/2007	OFF	<0.5	<0.5	22.0	9	32	48	140	320	18
10/2/2007	ON	<0.5	<0.5	21.9	27	250	75	430	610	20
11/2/2007	ON	<0.5	<0.5	22.1	5	40	10	74	95	7
2/1/2008	ON	<0.5	<0.5	21.8	100	830	260	2,200	1,850	<50
3/4/2008	ON	<0.5	<0.5	21.7	50	380	98	570	1,250	36
4/8/2008	OFF	<0.5	<0.5	22.2	69	290	110	480	1,040	41
5/23/2008	OFF	<0.5	<0.5	21.8	14	180	24	190	280	23
6/3/2008	OFF	<0.5	<0.5	21.7	30	380	42	400	330	70
7/2/2008	ON	<0.5	<0.5	21.4	49	32	6	34	45	10
8/19/2008	ON	<0.5	1.7	20.8	50	390	63	230	450	40
9/5/2008	ON	<0.5	2.0	21.2	22	130	39	130	340	42
10/7/2008	ON	<0.5	1.43	21.4	10	41	15	54	181	6.8
11/4/2008	ON	<0.5	2.08	21.1	7.5	31	47	190	242	<2.0
3/6/2009	ON	<0.5	<0.5	22.0	83	1,900	180	990	770	240
4/17/2009	ON	<0.5	<0.5	22.2	3.1	140	8	37	68	26
5/29/2009	ON	<0.5	1.08	21.0	130	1,700	640	3,700	3,100	100
8/18/2009	ON	<0.5	0.78	21.7	28	380	37	290	310	33
8/25/2009	ON	<0.5	0.87	20.6	37	500	44	320	293	20
9/18/2009	ON	<0.5	0.37	21.6	11	75	11	39	107	3
10/29/2009	ON	<0.5	1.80	18.2	77	350	45	250	440	4
11/25/2009	ON	<0.5	<0.5	21.1	14	110	12	110	164	11
12/15/2009	OFF	<0.5	<0.5	21.7	7	28	3	20	47	<3.2
2/26/2010	ON	<0.5	0.4	21.2	20	300	18	220	260	21
3/26/2010	ON	<0.5	1.0	20.2	18	380	20	110	90	5
5/4/2010	ON	<0.5	0.4	21.4	13	100	42	170	222	3
6/29/2010	ON	<0.5	0.4	21.3	9	74	13	66	82	<5.0

Notes:

1. Influent vapor samples were collected from the manifold conveying soil vapors extracted from the south-central and southeastern areas.
2. Other detected volatile organic compounds (VOCs) are included in the laboratory analytical reports in Appendix A.

Abbreviations:

- %v = percent by volume
- TPHg = total petroleum hydrocarbons as gasoline (C4-C12)
- ppmv = parts per million by volume
- ppbv = parts per billion by volume
- MTBE = methyl tert-butyl ether
- <0.5 = not detected at or above the laboratory reporting limit shown

**TABLE 5
EXTRACTED GROUNDWATER ANALYTICAL RESULTS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Date Sampled	EPA 8015M		EPA 8260B Volatile Organic Compounds (VOCs) ²				
	TPHg (µg/L)	TPHfp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
7/11/2007	--	--	4,800	130	890	1,040	690
8/7/2007	14,000	11,000	5,400	140	1,100	770	540
9/25/2007	12,000	30,000	3,400	310	1,600	2,390	540
10/16/2007	8,900	8,400	3,400	94	520	660	390
11/2/2007	44,000	6,500	3,200	130	860	1,160	570
11/30/2007	6,000	5,200	1,800	48	170	490	450
12/21/2007	7,200	4,200	2,100	41	170	430	750
1/4/2008	4,300	7,200	3,300	49	300	540	620
1/18/2008	11,000	2,200	3,600	140	650	850	620
2/1/2008	8,700	5,700	3,600	100	440	930	560
3/4/2008	7,200	4,900	3,900	120	510	770	620
4/8/2008	8,100	10,000	2,800	96	280	580	640
5/6/2008	5,300	2,800	2,900	76	190	328	430
6/3/2008	8,400	6,800	3,700	110	450	480	320
7/2/2008	9,200	4,300 ³	4,500	75	620	650	400
8/19/2008	4,000	6,600	2,600	57	76	215	450
9/5/2008	160	<500	<12	<25	<25	<25	<25
10/7/2008	<100	<500	0.36 J	<1.0	<1.0	1.59	1.7
11/4/2008	12,000	660,000	2,500	140	220	760	160
12/4/2008	1,300	1,500	600	8.2	28	73	130
1/6/2009	1,500	980	560	23	41	110	320
3/6/2009	2,500	1,500	1,100	33	51	114	65
4/7/2009	3,100	6,900	1,100	36	230	207	210
5/13/2009	690	1,500	120	3.2	14	60	24
6/12/2009	150	<500	<0.50	<1.0	<1.0	0.71 J	44
7/10/2009	4,500	560	1,500	41	68	175	150
8/4/2009	2,000	1,000	1,200	16	18	64	100
9/1/2009	4,800	3,500	380	45	25	328	5.4 J
10/6/2009	3,900	4,600	3,200	21	15	35	82
10/27/2009	1,000	<500	520	4	15	10	180
11/3/2009	120	<500	2	0.55 J	0.61 J	3	40
11/25/2009	5,700	4,000	3,100	26	13	48	88
2/16/2010	8,000	5,900	4,700	110	1,300	800	1,800
3/9/2010	7,000	5,900	6,600	110	460	550	410
4/20/2010	10,000	11,000	6,000	44	230	174	130
5/14/2010	8,500	2,100	3,600	67	380	400	210
6/25/2010	4,600	2,600	2,200	61	540	380	170

Notes:

- Influent samples were collected from the manifold conveying groundwater extracted from the south-central, southeastern, and west side barrier areas.
- Other detected VOCs are included in the laboratory analytical reports in Appendix A.
- TPHfp result from influent extracted groundwater sample collected on July 10, 2008.

Abbreviations:

TPHg = total petroleum hydrocarbons as gasoline (C4-C12)
µg/L = micrograms per liter
TPHfp = total petroleum hydrocarbons as fuel products (C7-C28)
MTBE = methyl tert-butyl ether
-- = not analyzed
<500 = Not detected at or above the laboratory reporting limit (RL) shown
J = Analyte was detected above the laboratory method detection limit and below the laboratory RL

**TABLE 6
REMEDATION WELL VAPOR CONCENTRATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Remediation Area	Remediation Well ID	Remediation Well Function ¹	Well Operation Status at End of Second Quarter 2010 ²	5/11/2010 (ppmv as Hexane)
South-Central	MW-SF-1	SVE	OFF	56.8
	MW-SF-2	SVE; TFE	OFF; OFF	11.0
	MW-SF-3	SVE; TFE	OFF; OFF	95.1
	MW-SF-4	SVE	OFF	25.6
	MW-SF-5	SVE	OFF	86.0
	MW-SF-6	SVE; TFE	OFF; OFF	15.3
	MW-SF-9	SVE	OFF	4.1
	MW-SF-10	SVE	OFF	2.5
	MW-SF-11	SVE; TFE	OFF; OFF	7.5
	MW-SF-12	SVE; TFE	OFF; OFF	93.7
	MW-SF-13	SVE; TFE	OFF; OFF	318.3
	MW-SF-14	SVE; TFE	OFF; ON	17.1
	MW-SF-15	SVE; TFE	OFF; OFF	166.7
	MW-SF-16	SVE; TFE	OFF; OFF	103.3
	GMW-9	SVE; TFE	OFF; OFF	14.7
	GMW-10	SVE	OFF	32.8
	GMW-22	SVE; TFE	OFF; OFF	14.7
	GMW-24	SVE; TFE	OFF; OFF	17.1
	GMW-25	SVE; GWE	OFF; OFF	17.1
	GWR-3	SVE; GWE	OFF; OFF	52.7
	VEW-1	SVE	OFF	63.7
	VEW-2	SVE	OFF	36.0
	MW-O-1	SVE; TFE	OFF; OFF	2.9
	MW-O-2	SVE; TFE	OFF; OFF	9.7
	GMW-O-11	SVE; TFE	OFF; ON	39.7
	GMW-O-12	SVE	OFF	4.9
	GMW-O-20	SVE; TFE	OFF; OFF	3.6
GMW-O-23	SVE; TFE	OFF; OFF	8.1	
MW-18 (MID)	SVE	OFF	0.6	
HW-2	SVE	OFF	32.4	
Southeastern	GMW-O-15	SVE; TFE	OFF; ON	1.3
	GMW-O-18	SVE; TFE	OFF; ON	1.3

Notes:

1. The well operations listed correspond to the well functions indicated in the previous column.
2. Vapor readings measured in the field with a Photoionization Detector calibrated using 50 ppmv of hexane.

Data reported based on information provided by SFPP, L.P.

Abbreviations:

SVE = Soil Vapor Extraction
 TFE = Total Fluids Extraction
 GWE - Groundwater Extractions
 ppmv = parts per million by volume
 NM = not measured

**TABLE 7
GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Well ID ¹	Date Gauged	Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Apparent Product Thickness	Groundwater Elevation	Gauged By
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	
GMW-1	8/28/2007	74.77	19.70	---	---	55.07	Stantec
	2/19/2008	74.77	25.20	---	---	49.57	Stantec
	3/21/2008	74.77	25.23	---	---	49.54	Envent
	4/14/2008	74.77	25.12	---	---	49.65	Stantec
	10/13/2008	74.77	25.84	---	---	48.93	Stantec
	4/20/2009	74.77	26.18	---	---	48.59	Blaine Tech
	10/19/2009	74.77	27.52	---	---	47.25	Blaine Tech
	5/24/2010	74.77	26.95	---	---	47.82	Blaine Tech
	5/28/2010	74.77	26.91	---	---	47.86	Blaine Tech
GMW-9	8/8/2008	74.44	28.01	27.96	0.05	---	Envent
	10/16/2008	74.44	28.36	28.35	0.01	---	Envent
	12/17/2008	74.44	27.61	---	---	46.83	Envent
	1/15/2009	74.44	28.91	---	---	45.53	Envent
	3/27/2009	74.44	29.04	---	---	45.40	Envent
	4/21/2009	74.44	28.16	---	---	46.28	Envent
	7/21/2009	74.44	28.31	---	---	46.13	Envent
	5/24/2010	74.44	30.47	---	---	43.97	Blaine Tech
	5/28/2010	74.44	30.35	---	---	44.09	Blaine Tech
GMW-22	11/12/2007	74.17	26.45	25.91	0.54	---	Stantec
	8/12/2008	74.17	26.70	---	---	47.47	Envent
	10/31/2008	74.17	28.25	27.04	1.21	---	Envent
	11/4/2008	74.17	26.97	---	---	47.20	Envent
	12/17/2008	74.17	26.65	---	---	47.52	Envent
	1/15/2009	74.17	27.18	---	---	46.99	Envent
	3/27/2009	74.17	27.86	---	---	46.31	Envent
	4/21/2009	74.17	27.30	27.20	0.10	---	Envent
	7/21/2009	74.17	27.70	---	---	46.47	Envent
	11/6/2009	74.17	28.12	---	---	46.05	Kinder Morgan
	11/12/2007	74.85	25.41	---	---	49.44	Stantec
GMW-23	12/28/2007	74.85	26.20	---	---	48.65	Geomatrix
	4/14/2008	74.85	25.62	---	---	49.23	Stantec
	10/13/2008	74.85	26.21	---	---	48.64	Stantec
	4/20/2009	74.85	26.29	---	---	48.56	Blaine Tech
	7/21/2009	74.85	27.33	---	---	47.52	Envent
	10/19/2009	74.85	27.51	---	---	47.34	Blaine Tech
	5/24/2010	74.85	27.32	---	---	47.53	Blaine Tech
	5/28/2010	74.85	27.27	---	---	47.58	Blaine Tech
	GMW-24	11/12/2007	74.04	27.50	27.46	0.04	---
8/19/2008		74.04	29.34	28.24	1.10	---	Envent
10/17/2008		74.04	30.88	29.90	0.98	---	Envent
10/21/2008		74.04	29.64	28.30	1.34	---	Envent
12/18/2008		74.04	29.04	---	---	45.00	Envent
1/15/2009		74.04	30.56	29.80	0.76	---	Envent
3/20/2009		74.04	31.28	---	---	42.76	Envent
3/27/2009		74.04	30.45	---	---	43.59	Envent
4/21/2009		74.04	29.91	---	---	44.13	Envent
7/21/2009		74.04	32.78	---	---	41.26	Envent
2/4/2010		74.04	29.67	29.40	0.27	---	Kinder Morgan
6/22/2010		74.04	29.47	---	---	44.57	Blaine Tech
GMW-25	11/12/2007	74.29	27.30	27.25	0.05	---	Stantec
	8/12/2008	74.29	27.81	---	---	46.48	Envent
	10/17/2008	74.29	28.26	---	---	46.03	Envent
	12/18/2008	74.29	29.01	---	---	45.28	Envent
	1/15/2009	74.29	28.62	---	---	45.67	Envent
	3/24/2009	74.29	28.79	---	---	45.50	Envent
	4/21/2009	74.29	28.35	---	---	45.94	Envent
	7/21/2009	74.29	29.80	---	---	44.49	Envent
	10/19/2009	74.29	30.28	---	---	44.01	Blaine Tech
	6/22/2010	74.29	31.64	---	---	42.65	Blaine Tech

**TABLE 7
GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Well ID ¹	Date Gauged	Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Apparent Product Thickness	Groundwater Elevation	Gauged By
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	
GMW-27	11/12/2007	74.41	24.90	---	---	49.51	Stantec
	12/21/2007	74.41	25.59	---	---	48.82	Geomatrix
	4/14/2008	74.41	25.21	---	---	49.20	Stantec
	8/11/2008	74.41	29.68	---	---	44.73	Stantec
	10/13/2008	74.41	25.81	---	---	48.60	Stantec
	11/21/2008	74.41	26.20	---	---	48.21	Stantec
	4/20/2009	74.41	26.04	---	---	48.37	Blaine Tech
	10/19/2009	74.41	27.39	---	---	47.02	Blaine Tech
	5/24/2010	74.41	26.90	---	---	47.51	Blaine Tech
	5/28/2010	74.41	26.96	---	---	47.45	Blaine Tech
GMW-30	8/21/2007	74.91	23.81	---	---	51.10	Geomatrix
	8/28/2007	74.91	24.65	---	---	50.26	Stantec
	9/11/2007	74.91	24.63	---	---	50.28	Geomatrix
	10/5/2007	74.91	25.13	---	---	49.78	Geomatrix
	11/2/2007	74.91	27.45	---	---	47.46	Geomatrix
	11/12/2007	74.91	25.38	---	---	49.53	Stantec
	4/14/2008	74.91	25.65	---	---	49.26	Stantec
	11/4/2008	74.91	26.52	---	---	48.39	Stantec
	4/20/2009	74.91	26.30	---	---	48.61	Blaine Tech
	10/19/2009	74.91	27.40	---	---	47.51	Blaine Tech
	5/24/2010	74.91	27.32	---	---	47.59	Blaine Tech
	5/28/2010	74.91	27.18	---	---	47.73	Blaine Tech
	GMW-36	8/28/2007	74.53	24.31	---	---	50.22
11/12/2007		74.53	24.86	24.85	0.01	---	Stantec
2/19/2008		74.53	25.50	---	---	49.27	Stantec
4/14/2008		74.53	24.61	---	---	50.16	Stantec
8/8/2008		74.53	26.20	26.14	0.06	---	Envent
10/16/2008		74.53	26.11	26.09	0.02	---	Envent
12/18/2008		74.53	28.70	28.65	0.05	---	Envent
1/15/2009		74.53	27.73	27.45	0.28	---	Envent
2/20/2009		74.53	26.39	26.35	0.04	---	Envent
2/23/2009		74.53	26.13	25.80	0.33	---	Blaine Tech
3/24/2009		74.53	29.83	---	---	44.70	Envent
4/20/2009		74.53	25.63	25.59	0.04	---	Blaine Tech
7/17/2009		74.53	27.40	---	---	47.13	Envent
7/21/2009		74.53	26.03	---	---	48.50	Envent
7/22/2009		74.53	25.90	---	---	48.63	Blaine Tech
10/19/2009		74.53	26.56	26.45	0.11	---	Blaine Tech
2/4/2010		74.53	26.93	26.80	0.13	---	Kinder Morgan
3/15/2010		74.53	26.80	---	---	47.73	Blaine Tech
4/16/2010		74.53	26.90	---	---	47.63	Blaine Tech
5/24/2010	74.53	25.96	25.90	0.06	---	Blaine Tech	
5/28/2010	74.53	25.94	25.88	0.06	---	Blaine Tech	
6/22/2010	74.56	25.94	25.91	0.03	---	Blaine Tech	
GMW-O-11	11/12/2007	74.17	24.40	---	---	49.77	Stantec
	8/15/2008	74.17	29.30	---	---	44.87	Envent
	10/17/2008	74.17	24.45	---	---	49.72	Envent
	12/19/2008	74.17	24.85	---	---	49.32	Envent
	1/15/2009	74.17	26.87	24.38	2.49	---	Envent
	2/24/2009	74.17	24.31	24.21	0.10	---	Envent
	3/27/2009	74.17	31.08	---	---	43.09	Envent
	4/21/2009	74.17	25.36	25.34	0.02	---	Envent
	7/21/2009	74.17	26.18	---	---	47.99	Envent
	11/6/2009	74.17	26.33	26.18	0.15	---	Kinder Morgan
	GMW-O-12	11/12/2007	73.49	23.13	---	---	50.36
4/14/2008		73.49	23.36	---	---	50.13	Stantec
10/13/2008		73.49	24.20	---	---	49.29	Stantec
4/20/2009		73.49	24.21	---	---	49.28	Blaine Tech
10/19/2009		73.49	25.08	---	---	48.41	Blaine Tech
5/24/2010		73.49	24.80	---	---	48.69	Blaine Tech
5/28/2010		73.49	24.74	---	---	48.75	Blaine Tech
GMW-O-15	11/12/2007	74.23	23.95	23.85	0.10	---	Stantec
	4/14/2008	74.23	23.64	---	---	50.59	Stantec
	8/8/2008	74.23	24.60	---	---	50.59	Envent
	8/11/2008	74.23	24.40	24.34	0.06	---	Stantec
	10/16/2008	74.23	24.53	---	---	49.70	Envent
	12/18/2008	74.23	24.86	---	---	49.37	Envent
	1/2/2009	74.23	24.82	---	---	49.41	Envent
	1/15/2009	74.23	26.01	---	---	48.22	Envent
	2/20/2009	74.23	24.80	---	---	49.43	Envent
	2/23/2009	74.23	24.76	24.74	0.02	---	Blaine Tech
	3/24/2009	74.23	25.55	---	---	48.68	Envent
	4/20/2009	74.23	24.66	24.61	0.05	---	Blaine Tech
	7/17/2009	74.23	25.01	---	---	49.22	Envent



**TABLE 7
GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Well ID ¹	Date Gauged	Top of Well Casing	Measured Depth	Measured Depth	Apparent Product	Groundwater	Gauged By
		Elevation	to Groundwater	to Product	Thickness	Elevation	
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	
GMW-O-15	7/22/2009	74.23	24.99	24.94	0.05	---	Blaine Tech
	10/19/2009	74.23	25.55	25.43	0.12	---	Blaine Tech
	2/4/2010	74.23	25.50	25.48	0.02	---	Kinder Morgan
	4/16/2010	74.23	23.10	---	---	51.13	Blaine Tech
	5/24/2010	74.23	25.67	---	---	48.56	Blaine Tech
	5/28/2010	74.23	25.35	---	---	48.88	Blaine Tech
	6/22/2010	74.23	25.81	---	---	48.42	Blaine Tech
GMW-O-20	8/15/2008	73.32	25.90	---	---	47.42	Envent
	10/17/2008	73.32	25.82	---	---	47.50	Envent
	12/19/2008	73.32	27.15	---	---	46.17	Envent
	1/15/2009	73.32	26.53	26.09	0.44	---	Envent
	2/24/2009	73.32	27.85	---	---	45.47	Envent
	3/20/2009	73.32	28.81	---	---	44.51	Envent
	3/27/2009	73.32	27.84	---	---	45.48	Envent
	4/21/2009	73.32	28.70	---	---	44.62	Envent
	7/21/2009	73.32	24.10	---	---	49.22	Envent
	11/9/2009	73.32	25.60	25.40	0.20	---	Kinder Morgan
6/22/2010	73.32	24.76	24.66	0.10	---	Blaine Tech	
GMW-O-21	12/28/2007	71.43	27.67	---	---	43.76	Geomatrix
	10/17/2008	71.43	26.00	---	---	45.43	Envent
	12/19/2008	71.43	24.82	---	---	46.61	Envent
	3/27/2009	71.43	26.41	---	---	45.02	Envent
	7/21/2009	71.43	24.88	---	---	46.55	Envent
11/9/2009	71.43	25.02	---	---	46.41	Kinder Morgan	
GMW-O-23	8/14/2007	73.63	23.33	---	---	50.30	Geomatrix
	8/21/2007	73.63	23.31	---	---	50.32	Geomatrix
	8/28/2007	73.63	23.00	---	---	50.63	Stantec
	9/11/2007	73.63	23.42	---	---	50.21	Geomatrix
	10/5/2007	73.63	27.79	---	---	45.84	Geomatrix
	11/2/2007	73.63	25.15	---	---	48.48	Geomatrix
	11/13/2007	73.63	23.90	---	---	49.73	Stantec
	12/28/2007	73.63	24.91	---	---	48.72	Geomatrix
	8/15/2008	73.63	26.28	---	---	47.35	Envent
	10/17/2008	73.63	27.16	---	---	46.47	Envent
	12/19/2008	73.63	27.60	---	---	46.03	Envent
	1/15/2009	73.63	27.54	---	---	46.09	Envent
	2/24/2009	73.63	26.19	---	---	47.44	Envent
	3/27/2009	73.63	23.74	---	---	49.89	Envent
	4/21/2009	73.63	27.30	---	---	46.33	Envent
11/9/2009	73.63	27.50	---	---	46.13	Kinder Morgan	
6/22/2010	73.63	32.10	---	---	41.53	Blaine Tech	
GWR-1	11/12/2007	73.65	24.05	---	---	49.60	Stantec
	12/21/2007	73.65	24.91	---	---	48.74	Geomatrix
	4/14/2008	73.65	24.40	---	---	49.25	Stantec
	10/13/2008	73.65	25.06	---	---	48.59	Stantec
	4/20/2009	77.40	28.78	---	---	48.62	Blaine Tech
	10/19/2009	77.40	29.98	---	---	47.42	Blaine Tech
	5/24/2010	77.40	26.37	---	---	51.03	Blaine Tech
5/28/2010	77.40	25.91	---	---	51.49	Blaine Tech	
GWR-3	11/12/2007	74.93	27.90	---	---	47.03	Stantec
	10/17/2008	74.93	29.88	---	---	45.05	Envent
	12/17/2008	74.93	19.71	---	---	55.22	Envent
	1/15/2009	74.93	29.27	29.26	0.26	---	Envent
	3/27/2009	74.93	27.18	---	---	47.75	Envent
	4/21/2009	74.93	29.97	---	---	44.96	Envent
	7/21/2009	74.93	28.77	---	---	46.16	Envent
MW-O-1	8/14/2007	75.48	25.31	23.78	1.53	---	Geomatrix
	8/21/2007	75.48	23.84	23.58	0.26	---	Geomatrix
	8/28/2007	75.48	23.07	23.06	0.01	---	Stantec
	9/11/2007	75.48	23.86	23.48	0.38	---	Geomatrix
	10/5/2007	75.48	24.67	---	---	50.81	Geomatrix
	11/2/2007	75.48	24.25	---	---	51.23	Geomatrix
	11/12/2007	75.48	24.27	24.25	0.02	---	Stantec
	12/28/2007	75.48	25.54	25.51	0.03	---	Geomatrix
	8/19/2008	75.48	25.18	25.13	0.05	---	Envent
	10/17/2008	75.48	25.30	---	---	50.18	Envent
	12/19/2008	75.48	26.31	---	---	49.17	Envent
	1/15/2009	75.48	25.84	---	---	49.64	Envent
	4/21/2009	75.48	25.41	---	---	50.07	Envent
10/19/2009	75.48	26.30	---	---	49.18	Blaine Tech	

**TABLE 7
GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Well ID ¹	Date Gauged	Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Apparent Product Thickness	Groundwater Elevation	Gauged By
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	
MW-O-2	11/12/2007	71.90	23.10	---	---	48.80	Stantec
	10/17/2008	71.90	24.85	---	---	47.05	Envent
	12/19/2008	71.90	25.51	---	---	46.39	Envent
	3/27/2009	71.90	25.22	---	---	46.68	Envent
	7/21/2009	71.90	23.63	---	---	48.27	Envent
	11/9/2009	71.90	25.39	---	---	46.51	Kinder Morgan
MW-SF-1	8/28/2007	78.93	27.94	---	---	50.99	Stantec
	11/12/2007	78.93	28.76	---	---	50.17	Stantec
	2/19/2008	78.93	29.50	---	---	49.43	Stantec
	4/14/2008	78.93	29.16	---	---	49.77	Stantec
	8/11/2008	78.93	29.75	---	---	49.18	Stantec
	10/13/2008	78.93	29.86	---	---	49.07	Stantec
	2/23/2009	78.93	30.00	---	---	48.93	Blaine Tech
	4/20/2009	78.93	29.97	---	---	48.96	Blaine Tech
	7/22/2009	78.93	30.98	---	---	47.95	Blaine Tech
	10/19/2009	78.93	31.11	---	---	47.82	Blaine Tech
	3/15/2010	78.93	31.74	---	---	47.19	Blaine Tech
	5/24/2010	78.93	30.79	---	---	48.14	Blaine Tech
	5/28/2010	78.93	30.57	---	---	48.36	Blaine Tech
6/22/2010	78.93	30.84	---	---	48.09	Blaine Tech	
MW-SF-2	11/12/2007	78.53	29.18	28.71	0.47	---	Stantec
	8/12/2008	78.53	31.11	---	---	47.42	Envent
	10/17/2008	78.53	31.55	31.50	0.05	---	Envent
	12/18/2008	78.53	32.75	32.55	0.20	---	Envent
	1/15/2009	78.53	30.84	30.57	0.27	---	Envent
	3/24/2009	78.53	28.85	---	---	49.68	Envent
	4/21/2009	78.53	29.98	---	---	48.55	Envent
	7/21/2009	78.53	29.85	---	---	48.68	Envent
	12/9/2009	78.53	31.45	---	---	47.08	Kinder Morgan
MW-SF-3	11/12/2007	78.12	29.34	28.28	1.06	---	Stantec
	8/12/2008	78.12	30.30	29.05	1.25	---	Envent
	10/17/2008	78.12	29.45	---	---	48.67	Envent
	12/18/2008	78.12	31.08	30.82	0.26	---	Envent
	1/15/2009	78.12	29.96	29.94	0.02	---	Envent
	3/20/2009	78.12	31.10	---	---	47.02	Envent
	3/24/2009	78.12	27.82	---	---	50.30	Envent
	4/21/2009	78.12	29.51	29.50	0.01	---	Envent
	7/21/2009	78.12	30.07	---	---	48.05	Envent
	11/6/2009	78.12	30.37	30.35	0.02	---	Kinder Morgan
12/9/2009	78.12	30.53	---	---	48.05	Kinder Morgan	
MW-SF-4	8/14/2007	79.38	30.34	28.38	1.96	---	Geomatrix
	8/28/2007	79.38	29.95	28.30	1.65	---	Stantec
	9/11/2007	79.38	29.98	28.43	1.55	---	Geomatrix
	10/5/2007	79.38	30.68	28.85	1.83	---	Geomatrix
	10/12/2007	79.38	30.27	29.96	0.31	---	Geomatrix
	10/19/2007	79.38	30.28	---	---	49.10	Geomatrix
	10/26/2007	79.38	30.52	---	---	48.86	Geomatrix
	11/2/2007	79.38	30.68	---	---	48.70	Geomatrix
	11/12/2007	79.38	29.70	29.69	0.01	---	Stantec
	12/21/2007	79.38	30.69	---	---	48.69	Geomatrix
	2/19/2008	79.38	30.22	---	---	49.16	Stantec
	3/21/2008	79.38	30.07	---	---	49.31	Envent
	4/14/2008	79.38	29.95	---	---	49.43	Stantec
	8/8/2008	79.38	30.51	---	---	48.87	Envent
	8/11/2008	79.38	30.57	---	---	48.81	Stantec
	10/16/2008	79.38	30.77	---	---	48.61	Envent
	1/15/2009	79.38	31.14	---	---	48.24	Envent
	2/20/2009	79.38	30.84	---	---	48.54	Envent
	2/23/2009	79.38	30.96	---	---	48.42	Blaine Tech
	4/20/2009	79.38	30.02	29.94	0.08	---	Blaine Tech
4/28/2009	79.38	30.78	---	---	48.60	Envent	
7/17/2009	79.38	31.85	---	---	47.53	Envent	
7/22/2009	79.38	31.65	31.61	0.04	---	Blaine Tech	
10/19/2009	79.38	31.93	31.90	0.03	---	Blaine Tech	
3/15/2010	79.38	31.95	31.91	0.04	---	Blaine Tech	
5/24/2010	79.38	31.60	---	---	47.78	Blaine Tech	
5/28/2010	79.38	26.40	---	---	52.98	Blaine Tech	
6/22/2010	79.38	31.63	---	---	47.75	Blaine Tech	
MW-SF-5	8/21/2007	79.74	28.36	---	---	51.38	Geomatrix
	8/28/2007	79.74	28.84	---	---	50.90	Stantec
	10/5/2007	79.74	29.50	---	---	50.24	Geomatrix
	11/2/2007	79.74	31.50	---	---	48.24	Geomatrix
	11/12/2007	79.74	29.93	---	---	49.81	Stantec
	12/21/2007	79.74	31.00	---	---	48.74	Geomatrix



**TABLE 7
GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Well ID ¹	Date Gauged	Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Apparent Product Thickness	Groundwater Elevation	Gauged By	
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)		
MW-SF-5	4/14/2008	79.74	30.20	---	---	49.54	Stantec	
	8/11/2008	79.74	30.85	---	---	48.89	Stantec	
	10/13/2008	79.74	30.93	---	---	48.81	Stantec	
	4/20/2009	79.74	30.99	---	---	48.75	Blaine Tech	
	5/24/2010	79.74	31.55	---	---	48.19	Blaine Tech	
	5/28/2010	79.74	31.44	---	---	48.30	Blaine Tech	
	6/22/2010	79.74	31.57	---	---	48.17	Blaine Tech	
MW-SF-6	11/12/2007	76.80	27.14	---	---	49.66	Stantec	
	8/12/2008	76.80	29.82	---	---	46.98	Envent	
	10/17/2008	76.80	29.75	---	---	47.05	Envent	
	12/18/2008	76.80	30.73	---	---	46.07	Envent	
	1/15/2009	76.80	31.35	---	---	45.45	Envent	
	3/24/2009	76.80	30.50	---	---	46.30	Envent	
	4/21/2009	76.80	28.45	---	---	48.35	Envent	
	7/21/2009	76.80	27.22	---	---	49.58	Envent	
	11/6/2009	76.80	29.10	---	---	47.70	Kinder Morgan	
	12/9/2009	76.80	31.35	---	---	45.45	Kinder Morgan	
	MW-SF-9	8/14/2007	74.10	28.73	28.61	0.12	---	Geomatrix
8/28/2007		74.10	20.55	---	---	53.55	Stantec	
8/21/2007		74.10	26.55	---	---	47.55	Geomatrix	
9/11/2007		74.10	19.40	---	---	54.70	Geomatrix	
10/5/2007		74.10	26.84	---	---	47.26	Geomatrix	
11/2/2007		74.10	22.76	---	---	51.34	Geomatrix	
11/12/2007		74.10	22.96	---	---	51.14	Stantec	
12/21/2007		74.10	24.05	---	---	50.05	Geomatrix	
4/14/2008		74.10	24.23	---	---	49.87	Stantec	
10/13/2008		74.10	24.83	---	---	49.27	Stantec	
4/20/2009		74.10	25.27	---	---	48.83	Blaine Tech	
MW-SF-9		10/19/2009	74.10	26.45	---	---	47.65	Blaine Tech
		5/24/2010	74.10	25.80	---	---	48.30	Blaine Tech
	5/28/2010	74.10	25.66	---	---	48.44	Blaine Tech	
	6/22/2010	74.10	25.84	---	---	48.26	Blaine Tech	
	MW-SF-11	8/14/2007	78.56	28.58	28.30	0.28	---	Geomatrix
8/21/2007		78.56	28.76	28.63	0.13	---	Geomatrix	
8/28/2007		78.56	28.22	---	---	50.34	Stantec	
9/11/2007		78.56	26.90	---	---	51.66	Geomatrix	
10/5/2007		78.56	28.43	---	---	50.13	Geomatrix	
11/2/2007		78.56	29.48	29.38	0.10	---	Geomatrix	
11/12/2007		78.56	29.03	---	---	49.53	Stantec	
8/15/2008		78.56	30.13	---	---	48.43	Envent	
10/17/2008		78.56	30.50	---	---	48.06	Envent	
12/18/2008		78.56	29.92	---	---	48.64	Envent	
1/15/2009		78.56	30.32	---	---	48.24	Envent	
3/24/2009		78.56	31.05	---	---	47.51	Envent	
4/21/2009		78.56	30.03	---	---	48.53	Envent	
7/21/2009		78.56	30.89	---	---	47.67	Envent	
11/9/2009	78.56	31.00	---	---	47.56	Kinder Morgan		
MW-SF-12	8/14/2007	78.07	27.76	---	---	50.31	Geomatrix	
	8/21/2007	78.07	27.43	---	---	50.64	Geomatrix	
	8/28/2007	78.07	27.58	---	---	50.49	Stantec	
	9/11/2007	78.07	27.73	---	---	50.34	Geomatrix	
	10/5/2007	78.07	28.06	---	---	50.01	Geomatrix	
	11/2/2007	78.07	29.59	---	---	48.48	Geomatrix	
	11/12/2007	78.07	28.33	---	---	49.74	Stantec	
	8/12/2008	78.07	30.02	---	---	48.05	Envent	
	10/17/2008	78.07	30.42	---	---	47.65	Envent	
	12/18/2008	78.07	31.55	---	---	46.52	Envent	
	1/15/2009	78.07	30.11	---	---	47.96	Envent	
	3/24/2009	78.07	29.41	---	---	48.66	Envent	
	4/21/2009	78.07	29.52	---	---	48.55	Envent	
	7/21/2009	78.07	28.58	---	---	49.49	Envent	
	11/4/2009	78.07	30.36	---	---	47.71	Kinder Morgan	
	2/4/2010	78.07	29.20	---	---	48.87	Kinder Morgan	
	MW-SF-13	8/14/2007	73.40	22.98	---	---	50.42	Geomatrix
8/21/2007		73.40	23.11	---	---	50.29	Geomatrix	
8/28/2007		73.40	22.85	---	---	50.55	Stantec	
9/11/2007		73.40	23.10	---	---	50.30	Geomatrix	
10/5/2007		73.40	28.11	---	---	45.29	Geomatrix	
11/2/2007		73.40	25.43	25.41	0.02	---	Geomatrix	
11/12/2007		73.40	23.70	---	---	49.70	Stantec	
12/21/2007		73.40	24.45	24.42	0.03	---	Geomatrix	
8/15/2008		73.40	27.38	24.11	3.27	---	Envent	
10/17/2008		73.40	27.28	24.33	2.95	---	Envent	
10/21/2008		73.40	27.14	24.26	2.88	---	Envent	

**TABLE 7
GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

Well ID ¹	Date Gauged	Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Apparent Product Thickness	Groundwater Elevation	Gauged By
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	
MW-SF-13	12/17/2008	73.40	26.21	24.70	1.51	---	Envent
	1/15/2009	73.40	26.90	24.80	2.10	---	Envent
	3/27/2009	73.40	26.46	25.49	0.97	---	Envent
	4/21/2009	73.40	24.86	24.78	0.08	---	Envent
	7/21/2009	73.40	25.72	25.48	0.24	---	Envent
	11/6/2009	73.40	25.72	---	---	47.68	Kinder Morgan
	2/4/2010	73.40	25.43	25.30	0.13	---	Kinder Morgan
MW-SF-14	8/14/2007	78.16	27.68	---	---	50.48	Geomatrix
	8/21/2007	78.16	27.60	---	---	50.56	Geomatrix
	8/28/2007	78.16	27.53	---	---	50.63	Stantec
	9/11/2007	78.16	27.66	---	---	50.50	Geomatrix
	10/5/2007	78.16	27.75	---	---	50.41	Geomatrix
	11/2/2007	78.16	29.83	---	---	48.33	Geomatrix
	8/15/2008	78.16	29.77	29.24	0.53	---	Envent
	10/17/2008	78.16	29.52	29.50	0.02	---	Envent
	12/18/2008	78.16	30.62	---	---	47.54	Envent
	1/15/2009	78.16	30.08	---	---	48.08	Envent
	3/24/2009	78.16	29.73	---	---	48.43	Envent
	4/21/2009	78.16	29.61	---	---	48.55	Envent
	7/21/2009	78.16	29.20	---	---	48.96	Envent
	11/6/2009	78.16	30.48	---	---	47.68	Kinder Morgan
	12/9/2009	78.16	30.68	---	---	47.48	Kinder Morgan
6/22/2010	78.16	26.17	---	---	51.99	Blaine Tech	
MW-SF-15	8/14/2007	78.27	27.78	27.75	0.03	---	Geomatrix
	8/21/2007	78.27	27.69	27.65	0.04	---	Geomatrix
	8/28/2007	78.27	27.65	27.61	0.04	---	Stantec
	9/11/2007	78.27	27.62	---	---	50.65	Geomatrix
	10/5/2007	78.27	28.15	---	---	50.12	Geomatrix
	11/2/2007	78.27	30.45	30.20	0.25	---	Geomatrix
	11/12/2007	78.27	28.75	---	---	49.52	Stantec
	8/15/2008	78.27	30.12	29.35	0.77	---	Envent
	10/17/2008	78.27	30.80	29.44	1.36	---	Envent
	10/21/2008	78.27	30.80	29.31	1.49	---	Envent
	12/18/2008	78.27	32.11	30.56	1.55	---	Envent
	1/15/2009	78.27	31.75	29.70	2.05	---	Envent
	3/24/2009	78.27	30.32	29.93	0.39	---	Envent
	4/21/2009	78.27	29.96	29.60	0.36	---	Envent
	7/21/2009	78.27	30.45	---	---	47.82	Envent
11/4/2009	78.27	31.10	30.45	0.36	---	Kinder Morgan	
12/9/2009	78.27	30.87	---	---	47.40	Kinder Morgan	
MW-SF-16	8/14/2007	78.21	27.68	---	---	50.53	Geomatrix
	8/21/2007	78.21	27.33	---	---	50.88	Geomatrix
	8/28/2007	78.21	27.51	---	---	50.70	Stantec
	9/11/2007	78.21	27.59	---	---	50.62	Geomatrix
	10/5/2007	78.21	28.10	---	---	50.11	Geomatrix
	11/2/2007	78.21	29.81	---	---	48.40	Geomatrix
	11/12/2007	78.21	28.40	---	---	49.81	Stantec
	8/15/2008	78.21	29.36	---	---	48.85	Envent
	10/17/2008	78.21	29.51	---	---	48.70	Envent
	12/18/2008	78.21	30.94	---	---	47.27	Envent
	1/15/2009	78.21	30.01	30.00	0.01	---	Envent
	3/24/2009	78.21	29.82	---	---	48.39	Envent
	4/21/2009	78.21	29.60	---	---	48.61	Envent
	7/21/2009	78.21	30.36	---	---	47.85	Envent
	11/4/2009	78.21	30.58	---	---	47.63	Kinder Morgan
2/4/2010	78.21	30.36	---	---	47.85	Kinder Morgan	

Notes:

1. Wells equipped with a total fluids extraction or groundwater extraction pump are shown in bold font.

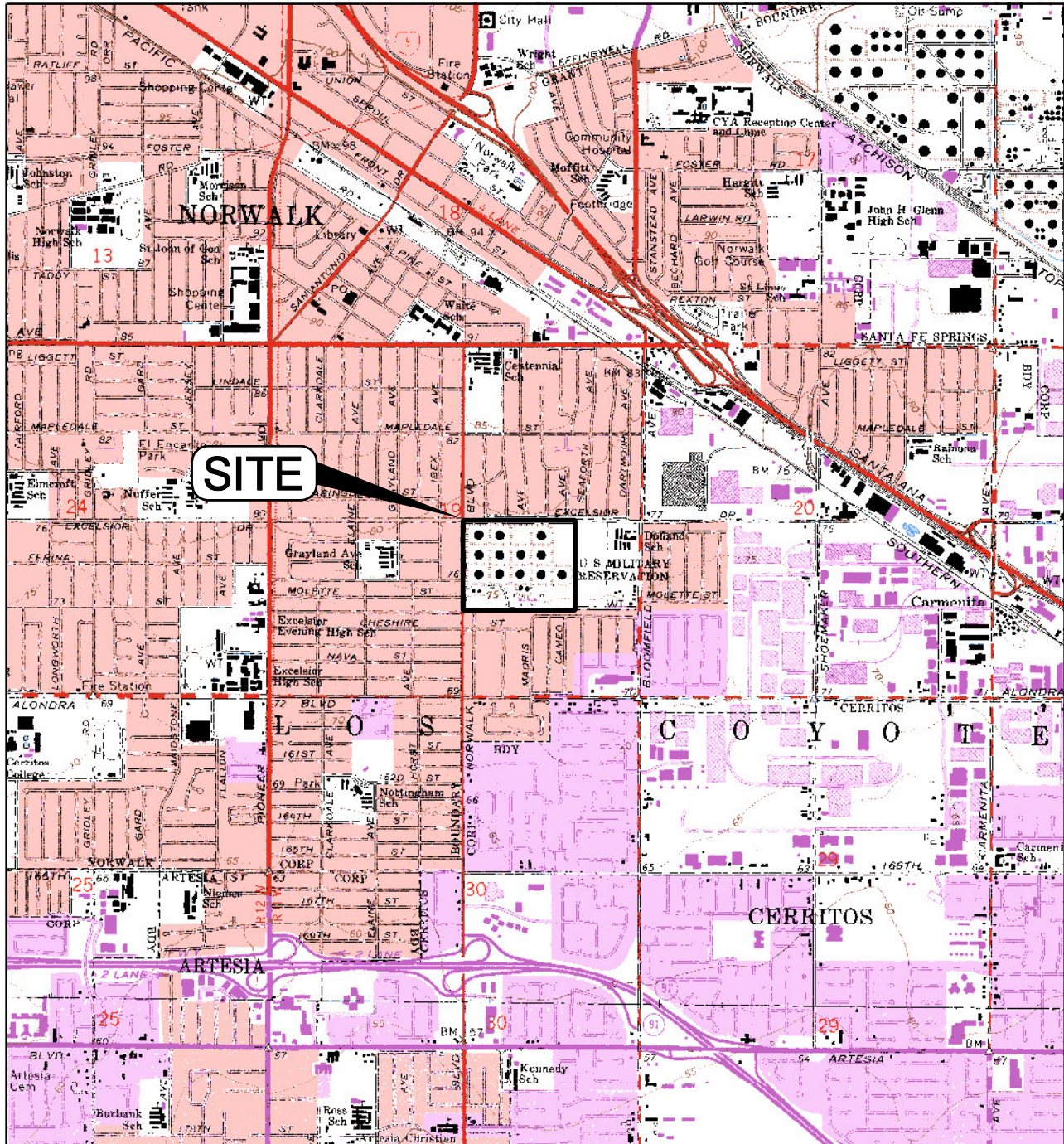
Abbreviations:

ft msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929.

ft bTOC = feet below top of casing.

--- = not detected or not applicable.

FIGURES



BASEMAP MODIFIED FROM U.S.G.S. 7.5 MINUTE QUADRANGLE MAP
 LOS ALAMITOS 1964, CALIFORNIA. PHOTO-REVISED 1981.
 WHITTIER 1965, CALIFORNIA. PHOTO-REVISED 1981.

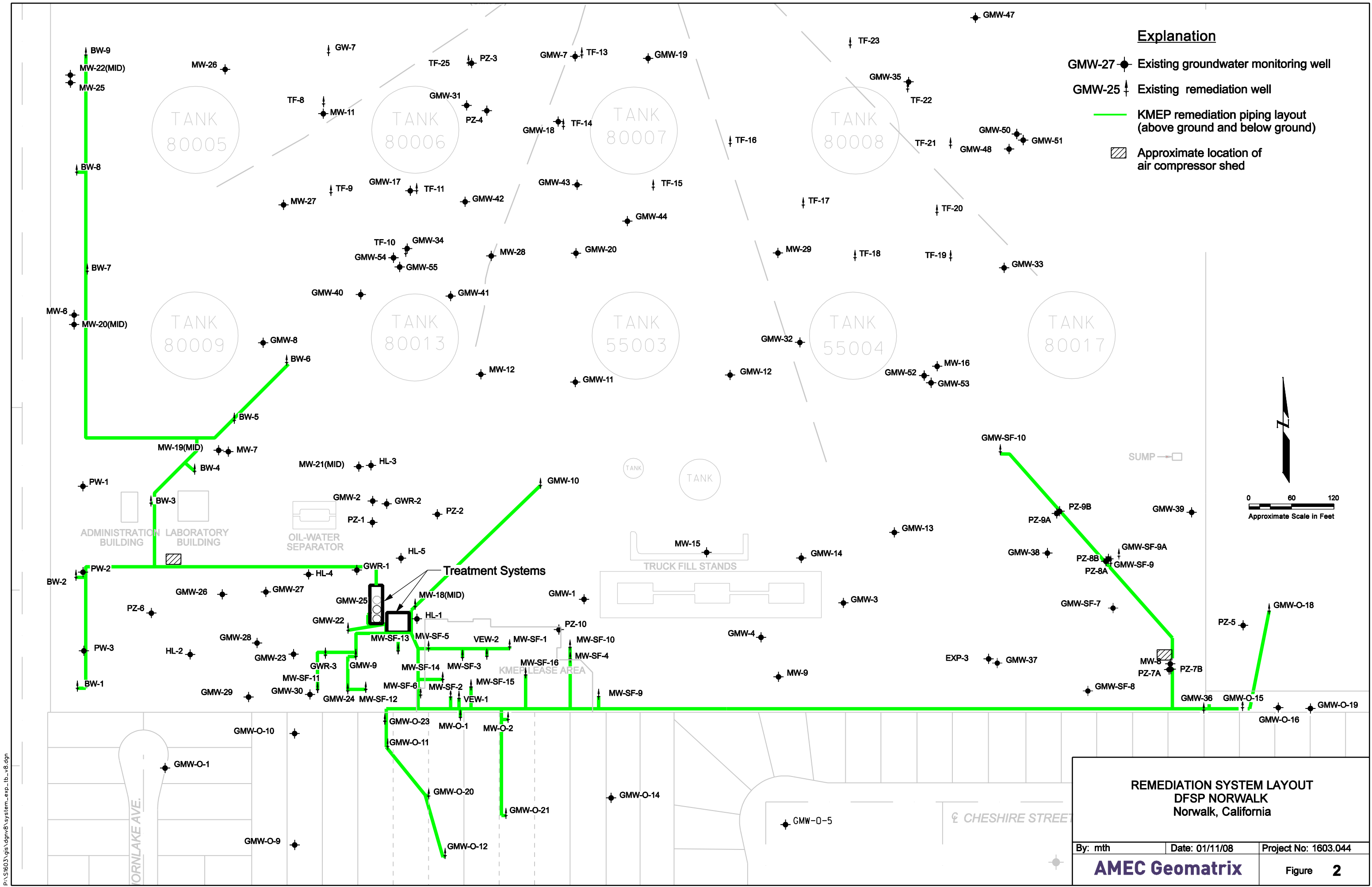
SITE LOCATION MAP

**DFSP NORWALK
 Norwalk, California**

By: kle	Date: 07/19/07	Project No: 1603.044
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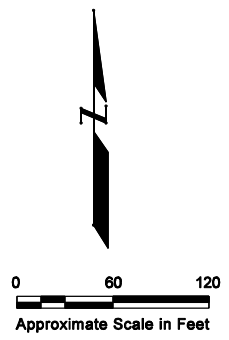
AMEC Geomatrix

Figure 1



Explanation

- GMW-27 Existing groundwater monitoring well
- GMW-25 Existing remediation well
- KMEP remediation piping layout (above ground and below ground)
- Approximate location of air compressor shed



REMEDIATION SYSTEM LAYOUT DFSP NORWALK Norwalk, California		
By: mth	Date: 01/11/08	Project No: 1603.044
AMEC Geomatrix		Figure 2

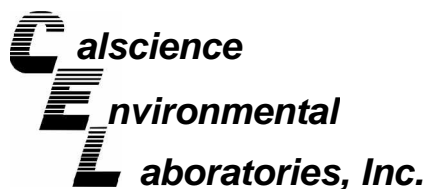
P:\S1603\gis\dgnv8\system_exp_tb_v8.dgn

APPENDIX A

LABORATORY ANALYTICAL RESULTS



GROUNDWATER



Supplemental Report 1

April 29, 2010

Alex Padilla
AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Subject: **CalScience Work Order No.: 10-04-1426**
Client Reference: SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 04/20/2010 and analyzed in accordance with the attached chain-of-custody.

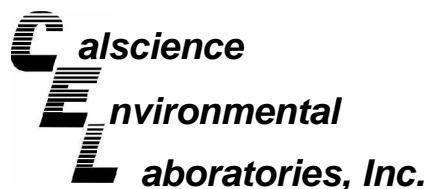
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak', is written over a white background.

CalScience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 04/20/10
Work Order No: 10-04-1426
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-04-20	10-04-1426-1-G	04/20/10 12:15	Aqueous	GC 27	04/21/10	04/23/10 20:53	100421B02

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Fuel Product	11000	500	430	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
Decachlorobiphenyl	114	68-140				

Method Blank	099-12-384-25	N/A	Aqueous	GC 27	04/21/10	04/23/10 20:00	100421B02
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Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Fuel Product	ND	500	430	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
Decachlorobiphenyl	111	68-140				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 04/20/10
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-04-20	10-04-1426-1-F	04/20/10 12:15	Aqueous	GC 25	04/23/10	04/24/10 02:13	100423B01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

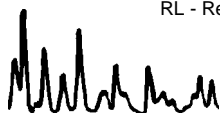
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	10000	2000	960	20		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	85	38-134				

Method Blank	099-12-247-4,128	N/A	Aqueous	GC 25	04/23/10	04/23/10 12:46	100423B01
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Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	82	38-134				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 04/20/10
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: SFPP - Norwalk Site

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-04-20	10-04-1426-1-B	04/20/10 12:15	Aqueous	GC/MS CC	04/22/10	04/22/10 20:16	100422L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	2500	1000	50		1,1-Dichloropropene	ND	50	13	50	
Benzene	6000	25	14	50		c-1,3-Dichloropropene	ND	25	14	50	
Bromobenzene	ND	50	17	50		t-1,3-Dichloropropene	ND	25	18	50	
Bromochloromethane	ND	50	35	50		Ethylbenzene	44	50	11	50	J
Bromodichloromethane	ND	50	17	50		2-Hexanone	ND	500	340	50	
Bromoform	ND	50	28	50		Isopropylbenzene	18	50	11	50	J
Bromomethane	ND	500	210	50		p-Isopropyltoluene	ND	50	13	50	
2-Butanone	ND	500	350	50		Methylene Chloride	ND	500	130	50	
n-Butylbenzene	ND	50	14	50		4-Methyl-2-Pentanone	ND	500	220	50	
sec-Butylbenzene	ND	50	10	50		Naphthalene	ND	500	130	50	
tert-Butylbenzene	ND	50	14	50		n-Propylbenzene	ND	50	40	50	
Carbon Disulfide	ND	500	96	50		Styrene	ND	50	15	50	
Carbon Tetrachloride	ND	25	21	50		1,1,1,2-Tetrachloroethane	ND	50	18	50	
Chlorobenzene	ND	50	11	50		1,1,2,2-Tetrachloroethane	ND	50	22	50	
Chloroethane	ND	250	64	50		Tetrachloroethene	ND	50	26	50	
Chloroform	ND	50	17	50		Toluene	230	50	16	50	
Chloromethane	ND	500	24	50		1,2,3-Trichlorobenzene	ND	50	15	50	
2-Chlorotoluene	ND	50	28	50		1,2,4-Trichlorobenzene	ND	50	24	50	
4-Chlorotoluene	ND	50	11	50		1,1,1-Trichloroethane	ND	50	22	50	
Dibromochloromethane	ND	50	24	50		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	32	50	
1,2-Dibromo-3-Chloropropane	ND	250	160	50		1,1,2-Trichloroethane	ND	50	27	50	
1,2-Dibromoethane	ND	50	23	50		Trichloroethene	ND	50	15	50	
Dibromomethane	ND	50	29	50		Trichlorofluoromethane	ND	500	16	50	
1,2-Dichlorobenzene	ND	50	14	50		1,2,3-Trichloropropane	ND	250	67	50	
1,3-Dichlorobenzene	ND	50	14	50		1,2,4-Trimethylbenzene	17	50	12	50	J
1,4-Dichlorobenzene	ND	50	11	50		1,3,5-Trimethylbenzene	ND	50	12	50	
Dichlorodifluoromethane	ND	50	25	50		Vinyl Acetate	ND	500	350	50	
1,1-Dichloroethane	ND	50	19	50		Vinyl Chloride	ND	25	16	50	
1,2-Dichloroethane	ND	25	16	50		p/m-Xylene	130	50	23	50	
1,1-Dichloroethene	ND	50	20	50		o-Xylene	44	50	12	50	J
c-1,2-Dichloroethene	ND	50	24	50		Methyl-t-Butyl Ether (MTBE)	130	50	15	50	
t-1,2-Dichloroethene	ND	50	20	50		Diisopropyl Ether (DIPE)	48	100	15	50	J
1,2-Dichloropropane	ND	50	19	50		Ethyl-t-Butyl Ether (ETBE)	ND	100	13	50	
1,3-Dichloropropane	ND	50	19	50		Tert-Amyl-Methyl Ether (TAME)	ND	100	14	50	
2,2-Dichloropropane	ND	50	23	50		Ethanol	ND	5000	2500	50	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	123	80-132		1,2-Dichloroethane-d4	133	80-141	
Toluene-d8	101	80-120		1,4-Bromofluorobenzene	91	76-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 04/20/10
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: SFPP - Norwalk Site


Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-513	N/A	Aqueous	GC/MS CC	04/22/10	04/22/10 12:11	100422L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	50	20	1		1,1-Dichloropropene	ND	1.0	0.26	1	
Benzene	ND	0.50	0.28	1		c-1,3-Dichloropropene	ND	0.50	0.28	1	
Bromobenzene	ND	1.0	0.33	1		t-1,3-Dichloropropene	ND	0.50	0.36	1	
Bromochloromethane	ND	1.0	0.69	1		Ethylbenzene	ND	1.0	0.22	1	
Bromodichloromethane	ND	1.0	0.33	1		2-Hexanone	ND	10	6.9	1	
Bromoform	ND	1.0	0.55	1		Isopropylbenzene	ND	1.0	0.23	1	
Bromomethane	ND	10	4.3	1		p-Isopropyltoluene	ND	1.0	0.26	1	
2-Butanone	ND	10	6.9	1		Methylene Chloride	ND	10	2.6	1	
n-Butylbenzene	ND	1.0	0.28	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
sec-Butylbenzene	ND	1.0	0.20	1		Naphthalene	ND	10	2.5	1	
tert-Butylbenzene	ND	1.0	0.28	1		n-Propylbenzene	ND	1.0	0.79	1	
Carbon Disulfide	ND	10	1.9	1		Styrene	ND	1.0	0.30	1	
Carbon Tetrachloride	ND	0.50	0.43	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.35	1	
Chlorobenzene	ND	1.0	0.22	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.44	1	
Chloroethane	ND	5.0	1.3	1		Tetrachloroethene	ND	1.0	0.51	1	
Chloroform	ND	1.0	0.33	1		Toluene	ND	1.0	0.33	1	
Chloromethane	ND	10	0.49	1		1,2,3-Trichlorobenzene	0.31	1.0	0.31	1	J
2-Chlorotoluene	ND	1.0	0.55	1		1,2,4-Trichlorobenzene	ND	1.0	0.49	1	
4-Chlorotoluene	ND	1.0	0.21	1		1,1,1-Trichloroethane	ND	1.0	0.45	1	
Dibromochloromethane	ND	1.0	0.48	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.64	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	3.1	1		1,1,2-Trichloroethane	ND	1.0	0.54	1	
1,2-Dibromoethane	ND	1.0	0.47	1		Trichloroethene	ND	1.0	0.30	1	
Dibromomethane	ND	1.0	0.59	1		Trichlorofluoromethane	ND	10	0.31	1	
1,2-Dichlorobenzene	ND	1.0	0.27	1		1,2,3-Trichloropropane	ND	5.0	1.3	1	
1,3-Dichlorobenzene	ND	1.0	0.28	1		1,2,4-Trimethylbenzene	ND	1.0	0.24	1	
1,4-Dichlorobenzene	ND	1.0	0.21	1		1,3,5-Trimethylbenzene	ND	1.0	0.23	1	
Dichlorodifluoromethane	ND	1.0	0.49	1		Vinyl Acetate	ND	10	7.1	1	
1,1-Dichloroethane	ND	1.0	0.37	1		Vinyl Chloride	ND	0.50	0.33	1	
1,2-Dichloroethane	ND	0.50	0.31	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethene	ND	1.0	0.40	1		o-Xylene	ND	1.0	0.24	1	
c-1,2-Dichloroethene	ND	1.0	0.49	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
t-1,2-Dichloroethene	ND	1.0	0.40	1		Diisopropyl Ether (DIPE)	ND	2.0	0.31	1	
1,2-Dichloropropane	ND	1.0	0.38	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.27	1	
1,3-Dichloropropane	ND	1.0	0.38	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.28	1	
2,2-Dichloropropane	ND	1.0	0.46	1		Ethanol	ND	100	50	1	
Surrogates:	REC (%)	Control Limits	Qual			Surrogates:	REC (%)	Control Limits	Qual		
Dibromofluoromethane	116	80-132				1,2-Dichloroethane-d4	122	80-141			
Toluene-d8	102	80-120				1,4-Bromofluorobenzene	91	76-120			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 04/20/10
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-04-1682-1	Aqueous	GC 25	04/23/10	04/23/10	100423S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	92	92	68-122	1	0-18	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 04/20/10
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-04-1438-2	Aqueous	GC/MS CC	04/22/10	04/22/10	100422S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	99	100	72-120	1	0-20	
Carbon Tetrachloride	102	106	63-135	4	0-20	
Chlorobenzene	99	100	80-120	0	0-20	
1,2-Dibromoethane	98	96	80-120	2	0-20	
1,2-Dichlorobenzene	88	91	80-120	3	0-20	
1,1-Dichloroethene	107	112	60-132	4	0-24	
Ethylbenzene	96	96	78-120	1	0-20	
Toluene	104	102	74-122	2	0-20	
Trichloroethene	105	107	69-120	2	0-20	
Vinyl Chloride	91	99	58-130	8	0-20	
Methyl-t-Butyl Ether (MTBE)	83	85	72-126	2	0-21	
Tert-Butyl Alcohol (TBA)	127	127	72-126	0	0-20	3
Diisopropyl Ether (DIPE)	105	107	71-137	2	0-23	
Ethyl-t-Butyl Ether (ETBE)	78	82	74-128	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	78	80	76-124	2	0-20	
Ethanol	120	113	35-167	6	0-48	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-04-1426
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-384-25	Aqueous	GC 27	04/21/10	04/23/10	100421B02

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Fuel Product	94	96	75-117	2	0-13	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-4,128	Aqueous	GC 25	04/23/10	04/23/10	100423B01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	92	90	78-120	2	0-10	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-04-1426
Preparation: EPA 5030B
Method: EPA 8260B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-14-001-513	Aqueous	GC/MS CC	04/22/10	04/22/10	100422L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	98	99	80-122	73-129	1	0-20	
Carbon Tetrachloride	104	101	68-140	56-152	3	0-20	
Chlorobenzene	99	99	80-120	73-127	0	0-20	
1,2-Dibromoethane	97	97	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	92	92	80-120	73-127	1	0-20	
1,1-Dichloroethene	109	110	72-132	62-142	1	0-25	
Ethylbenzene	96	95	80-126	72-134	1	0-20	
Toluene	101	101	80-121	73-128	0	0-20	
Trichloroethene	102	103	80-123	73-130	1	0-20	
Vinyl Chloride	95	99	67-133	56-144	4	0-20	
Methyl-t-Butyl Ether (MTBE)	87	86	75-123	67-131	1	0-20	
Tert-Butyl Alcohol (TBA)	118	123	75-123	67-131	4	0-20	
Diisopropyl Ether (DIPE)	106	104	71-131	61-141	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	84	81	76-124	68-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	80	79	80-123	73-130	1	0-20	ME
Ethanol	118	138	61-139	48-152	16	0-27	

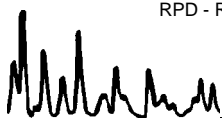
Total number of LCS compounds : 16

Total number of ME compounds : 1

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Glossary of Terms and Qualifiers



Work Order Number: 10-04-1426


<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



CHAIN OF CUSTODY RECORD
 DATE: 04-20-12
 PAGE: 1 OF 1

CE science
Environmental
Laboratories, Inc.
 7440 LINCOLN WAY
 GARDEN GROVE, CA 92841-1432
 TEL: (714) 895-5494 . FAX: (714) 894-7501

LABORATORY CLIENT: **Kinder Morgan Energy Partners, Attn: Steve Defibaugh**
 ADDRESS: **1100 Town & Country Road**
 CITY: **Orange, CA 92868**
 TEL: **714-560-4802** FAX: **714-560-4601** E-MAIL: james.dye@kindermorgan.com

CLIENT PROJECT NAME/NUMBER: **SFPP - Norwalk Site**
 PROJECT CONTACT: **James Dye**
 SAMPLER(S) (SIGNATURE): 

P.O. NO.: _____ QUOTE NO.: _____

LAB USE ONLY: 0 4 1 4 2 6

REQUESTED ANALYSIS


LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	TIME	MAT- RIX	NO. OF CONT.	TPH - g (8015M)	TPH - fp (8015M)	VOCs, Full List (8260B)	Oil & Grease (413.1)	TPH-g (CS-C14 Only) (8015M)	MBE;BTEX;1,1-DCA;1,2-DCA;MEK(8260B)	Settleable Solids (160.5)	Total Suspended Solids (160.2)	Phenolics (420.1)	Hg,Cr(VI),Cu(1669,7199,6020)	Selenium on 24 HR TAT	Comments
1	INF-04-20	Influent	04-20-12	12:15	WW	7	X	X	X	X	X	X	X	X	X	X	X	Temperature* = _____
2	EFF-04-20	Effluent	04-20-12	12:15	WW	12												Temperature* = _____ (Temp. as sampled*)
																		Monthly

Report to A. Padilla at Geomatrix, cc: KMEP
 Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195
 "J" flags required/Use lowest possible detection limit - all methods.

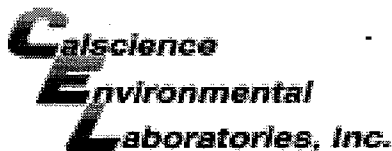
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
 SAME DAY 24 HR 48HR 72 HR 5 DAYS 10 DAYS

RWQCB REPORTING ARCHIVE SAMPLES UNTIL / /

SPECIAL INSTRUCTIONS

Relinquished by: (Signature)  Date: 4/20/10 Time: 13:12
 Relinquished by: (Signature) _____ Date: _____ Time: _____
 Relinquished by: (Signature) _____ Date: _____ Time: _____

Revised: 07/23/09



WORK ORDER #: 10-04-7426

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KMEP

DATE: 04/20/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.4 °C + 0.5°C (CF) = 2.9 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only Initial: bl

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: bl

Sample _____ No (Not Intact) Not Present Initial: g

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

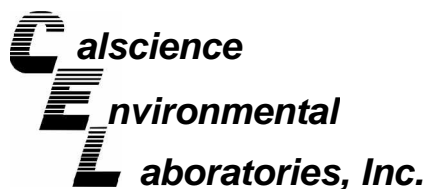
500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBzanna 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® **Other:** _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** g

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** WSC

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ zanna: ZnAc₂+NaOH f: Field-filtered **Scanned by:** WSC



May 21, 2010

Alex Padilla
AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Subject: **CalScience Work Order No.: 10-05-1198**
Client Reference: SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/14/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

CalScience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/14/10
Work Order No: 10-05-1198
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-5-14	10-05-1198-1-G	05/14/10 12:45	Aqueous	GC 48	05/18/10	05/19/10 00:29	100518B06

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard.
Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
-Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

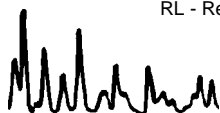
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Fuel Product	2100	500	430	1		ug/L
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>MDL</u>		<u>Qual</u>	
Decachlorobiphenyl	77	68-140				

Method Blank	099-12-384-26	N/A	Aqueous	GC 48	05/18/10	05/18/10 23:43	100518B06

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Fuel Product	ND	500	430	1		ug/L
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>MDL</u>		<u>Qual</u>	
Decachlorobiphenyl	113	68-140				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/14/10
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-5-14	10-05-1198-1-D	05/14/10 12:45	Aqueous	GC 1	05/15/10	05/16/10 15:11	100515B02

Comment(s): -The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard.
Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
-Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

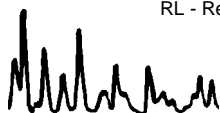
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	8500	2000	960	20		ug/L
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>MDL</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	86	38-134				

Method Blank	099-12-247-4,205	N/A	Aqueous	GC 1	05/15/10	05/16/10 08:16	100515B02
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Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	<u>REC (%)</u>	<u>Control Limits</u>	<u>MDL</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	84	38-134				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/14/10
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: SFPP - Norwalk Site

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-5-14	10-05-1198-1-A	05/14/10 12:45	Aqueous	GC/MS LL	05/20/10	05/21/10 00:35	100520L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	1000	400	20		1,1-Dichloropropene	ND	20	5.1	20	
Benzene	3600	10	5.7	20		c-1,3-Dichloropropene	ND	10	5.7	20	
Bromobenzene	ND	20	6.7	20		t-1,3-Dichloropropene	ND	10	7.2	20	
Bromochloromethane	ND	20	14	20		Ethylbenzene	67	20	4.4	20	
Bromodichloromethane	ND	20	6.6	20		2-Hexanone	ND	200	140	20	
Bromoform	ND	20	11	20		Isopropylbenzene	14	20	4.5	20	J
Bromomethane	ND	200	86	20		p-Isopropyltoluene	ND	20	5.2	20	
2-Butanone	ND	200	140	20		Methylene Chloride	ND	200	52	20	
n-Butylbenzene	9.2	20	5.5	20	J	4-Methyl-2-Pentanone	ND	200	88	20	
sec-Butylbenzene	ND	20	4.1	20		Naphthalene	110	200	51	20	J
tert-Butylbenzene	ND	20	5.5	20		n-Propylbenzene	28	20	16	20	
Carbon Disulfide	ND	200	38	20		Styrene	ND	20	6.0	20	
Carbon Tetrachloride	ND	10	8.5	20		1,1,1,2-Tetrachloroethane	ND	20	7.0	20	
Chlorobenzene	ND	20	4.4	20		1,1,2,2-Tetrachloroethane	ND	20	8.8	20	
Chloroethane	ND	100	26	20		Tetrachloroethene	ND	20	10	20	
Chloroform	ND	20	6.6	20		Toluene	380	20	6.5	20	
Chloromethane	ND	200	9.7	20		1,2,3-Trichlorobenzene	ND	20	6.1	20	
2-Chlorotoluene	ND	20	11	20		1,2,4-Trichlorobenzene	ND	20	9.7	20	
4-Chlorotoluene	ND	20	4.2	20		1,1,1-Trichloroethane	ND	20	9.0	20	
Dibromochloromethane	ND	20	9.7	20		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	200	13	20	
1,2-Dibromo-3-Chloropropane	ND	100	62	20		1,1,2-Trichloroethane	ND	20	11	20	
1,2-Dibromoethane	ND	20	9.3	20		Trichloroethene	ND	20	6.1	20	
Dibromomethane	ND	20	12	20		Trichlorofluoromethane	ND	200	6.2	20	
1,2-Dichlorobenzene	ND	20	5.4	20		1,2,3-Trichloropropane	ND	100	27	20	
1,3-Dichlorobenzene	ND	20	5.7	20		1,2,4-Trimethylbenzene	98	20	4.9	20	
1,4-Dichlorobenzene	ND	20	4.2	20		1,3,5-Trimethylbenzene	27	20	4.6	20	
Dichlorodifluoromethane	ND	20	9.8	20		Vinyl Acetate	ND	200	140	20	
1,1-Dichloroethane	ND	20	7.5	20		Vinyl Chloride	ND	10	6.5	20	
1,2-Dichloroethane	ND	10	6.3	20		p/m-Xylene	300	20	9.1	20	
1,1-Dichloroethene	ND	20	8.0	20		o-Xylene	100	20	4.7	20	
c-1,2-Dichloroethene	ND	20	9.7	20		Methyl-t-Butyl Ether (MTBE)	210	20	6.1	20	
t-1,2-Dichloroethene	ND	20	8.1	20		Diisopropyl Ether (DIPE)	26	40	6.2	20	J
1,2-Dichloropropane	ND	20	7.6	20		Ethyl-t-Butyl Ether (ETBE)	ND	40	5.3	20	
1,3-Dichloropropane	ND	20	7.6	20		Tert-Amyl-Methyl Ether (TAME)	ND	40	5.7	20	
2,2-Dichloropropane	ND	20	9.2	20		Ethanol	ND	2000	1000	20	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	111	80-132				1,2-Dichloroethane-d4	116	80-141			
Toluene-d8	100	80-120				1,4-Bromofluorobenzene	95	76-120			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/14/10
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: SFPP - Norwalk Site

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-853	N/A	Aqueous	GC/MS LL	05/20/10	05/20/10 21:03	100520L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	50	20	1		1,1-Dichloropropene	ND	1.0	0.26	1	
Benzene	ND	0.50	0.28	1		c-1,3-Dichloropropene	ND	0.50	0.28	1	
Bromobenzene	ND	1.0	0.33	1		t-1,3-Dichloropropene	ND	0.50	0.36	1	
Bromochloromethane	ND	1.0	0.69	1		Ethylbenzene	ND	1.0	0.22	1	
Bromodichloromethane	ND	1.0	0.33	1		2-Hexanone	ND	10	6.9	1	
Bromoform	ND	1.0	0.55	1		Isopropylbenzene	ND	1.0	0.23	1	
Bromomethane	ND	10	4.3	1		p-Isopropyltoluene	ND	1.0	0.26	1	
2-Butanone	ND	10	6.9	1		Methylene Chloride	ND	10	2.6	1	
n-Butylbenzene	ND	1.0	0.28	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
sec-Butylbenzene	ND	1.0	0.20	1		Naphthalene	ND	10	2.5	1	
tert-Butylbenzene	ND	1.0	0.28	1		n-Propylbenzene	ND	1.0	0.79	1	
Carbon Disulfide	ND	10	1.9	1		Styrene	ND	1.0	0.30	1	
Carbon Tetrachloride	ND	0.50	0.43	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.35	1	
Chlorobenzene	ND	1.0	0.22	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.44	1	
Chloroethane	ND	5.0	1.3	1		Tetrachloroethene	ND	1.0	0.51	1	
Chloroform	ND	1.0	0.33	1		Toluene	ND	1.0	0.33	1	
Chloromethane	ND	10	0.49	1		1,2,3-Trichlorobenzene	ND	1.0	0.31	1	
2-Chlorotoluene	ND	1.0	0.55	1		1,2,4-Trichlorobenzene	ND	1.0	0.49	1	
4-Chlorotoluene	ND	1.0	0.21	1		1,1,1-Trichloroethane	ND	1.0	0.45	1	
Dibromochloromethane	ND	1.0	0.48	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.64	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	3.1	1		1,1,2-Trichloroethane	ND	1.0	0.54	1	
1,2-Dibromoethane	ND	1.0	0.47	1		Trichloroethene	ND	1.0	0.30	1	
Dibromomethane	ND	1.0	0.59	1		Trichlorofluoromethane	ND	10	0.31	1	
1,2-Dichlorobenzene	ND	1.0	0.27	1		1,2,3-Trichloropropane	ND	5.0	1.3	1	
1,3-Dichlorobenzene	ND	1.0	0.28	1		1,2,4-Trimethylbenzene	ND	1.0	0.24	1	
1,4-Dichlorobenzene	ND	1.0	0.21	1		1,3,5-Trimethylbenzene	ND	1.0	0.23	1	
Dichlorodifluoromethane	ND	1.0	0.49	1		Vinyl Acetate	ND	10	7.1	1	
1,1-Dichloroethane	ND	1.0	0.37	1		Vinyl Chloride	ND	0.50	0.33	1	
1,2-Dichloroethane	ND	0.50	0.31	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethene	ND	1.0	0.40	1		o-Xylene	ND	1.0	0.24	1	
c-1,2-Dichloroethene	ND	1.0	0.49	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
t-1,2-Dichloroethene	ND	1.0	0.40	1		Diisopropyl Ether (DIPE)	ND	2.0	0.31	1	
1,2-Dichloropropane	ND	1.0	0.38	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.27	1	
1,3-Dichloropropane	ND	1.0	0.38	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.28	1	
2,2-Dichloropropane	ND	1.0	0.46	1		Ethanol	ND	100	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	106	80-132				1,2-Dichloroethane-d4	107	80-141			
Toluene-d8	99	80-120				1,4-Bromofluorobenzene	93	76-120			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/14/10
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-1138-3	Aqueous	GC 1	05/15/10	05/16/10	100515S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	92	91	68-122	1	0-18	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/14/10
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-1381-1	Aqueous	GC/MS LL	05/20/10	05/21/10	100520S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	97	93	72-120	4	0-20	
Carbon Tetrachloride	106	103	63-135	3	0-20	
Chlorobenzene	96	94	80-120	2	0-20	
1,2-Dibromoethane	95	94	80-120	1	0-20	
1,2-Dichlorobenzene	93	94	80-120	1	0-20	
1,2-Dichloroethane	105	101	80-120	3	0-20	
1,1-Dichloroethene	93	91	60-132	2	0-24	
Ethylbenzene	101	100	78-120	1	0-20	
Toluene	98	95	74-122	3	0-20	
Trichloroethene	99	95	69-120	3	0-20	
Vinyl Chloride	110	120	58-130	9	0-20	
Methyl-t-Butyl Ether (MTBE)	99	95	72-126	4	0-21	
Tert-Butyl Alcohol (TBA)	99	105	72-126	6	0-20	
Diisopropyl Ether (DIPE)	99	96	71-137	4	0-23	
Ethyl-t-Butyl Ether (ETBE)	98	96	74-128	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	99	94	76-124	5	0-20	
Ethanol	102	112	35-167	10	0-48	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

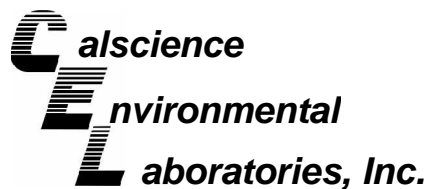
Date Received: N/A
Work Order No: 10-05-1198
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-384-26	Aqueous	GC 48	05/18/10	05/19/10	100518B06

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Fuel Product	93	94	75-117	1	0-13	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-4,205	Aqueous	GC 1	05/15/10	05/16/10	100515B02

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	105	104	78-120	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-05-1198
Preparation: EPA 5030B
Method: EPA 8260B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-14-001-853	Aqueous	GC/MS LL	05/20/10	05/20/10	100520L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	93	95	80-122	73-129	2	0-20	
Carbon Tetrachloride	97	99	68-140	56-152	3	0-20	
Chlorobenzene	95	97	80-120	73-127	3	0-20	
1,2-Dibromoethane	91	95	80-121	73-128	4	0-20	
1,2-Dichlorobenzene	94	98	80-120	73-127	4	0-20	
1,1-Dichloroethene	90	95	72-132	62-142	5	0-25	
Ethylbenzene	97	101	80-126	72-134	3	0-20	
Toluene	94	96	80-121	73-128	3	0-20	
Trichloroethene	93	97	80-123	73-130	4	0-20	
Vinyl Chloride	91	95	67-133	56-144	4	0-20	
Methyl-t-Butyl Ether (MTBE)	97	101	75-123	67-131	4	0-20	
Tert-Butyl Alcohol (TBA)	102	105	75-123	67-131	4	0-20	
Diisopropyl Ether (DIPE)	97	100	71-131	61-141	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	96	100	76-124	68-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	96	98	80-123	73-130	2	0-20	
Ethanol	74	83	61-139	48-152	11	0-27	

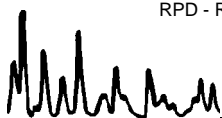
Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 10-05-1198

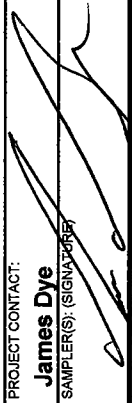
<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



CHAIN OF CUSTODY RECORD
 DATE: 05-14-10
 PAGE: 1 OF 1

7440 LINCOLN WAY
 GARDEN GROVE, CA 92841-1432
 TEL: (714) 895-5494 . FAX: (714) 894-7501

LABORATORY CLIENT: **Kinder Morgan Energy Partners, Attn: Steve Defibaugh**
 ADDRESS: **1100 Town & Country Road**
 CITY: **Orange, CA 92868**
 TEL: **714-560-4802** FAX: **714-560-4601** E-MAIL: **james.dye@kindermorgan.com**
 TURNAROUND TIME
 SAME DAY 24 HR 48HR 72 HR 5 DAYS 10 DAYS
 SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
 RWQCB REPORTING ARCHIVE SAMPLES UNTIL / /

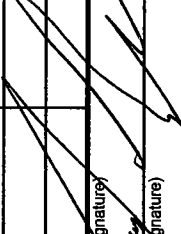
CLIENT PROJECT NAME/NUMBER: **SFPP - Norwalk Site**
 PROJECT CONTACT: **James Dye**
 SAMPLER(S): (SIGNATURE) 
 P.O. NO.:
 QUOTE NO.:
 LAB USE ONLY:

0	0	1	1	9	8
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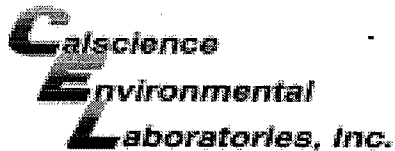
REQUESTED ANALYSIS

TPH - g (8015M) TPH-fp (8015M) VOCs, Full List (8260B) Oil & Grease (413.1) TPH-g (C5-C14 Only) (8015M) MBE;BTEX;1,1-DCA;1,2-DCA;MEK(8260B) Settleable Solids (160.5) Total Suspended Solids (160.2) Phenolics (420.1) Hg,Cr(VI),Cu(1669.7199.6020) Selenium on 24 HR TAT

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING		NO. OF CONT.	COMMENTS	
			DATE	TIME			
	INF-5-14	Influent	5-14-10	1245	WW	7	Temperature* = _____ (Temp. as sampled*)
							Monthly

Received by: (Signature)  Date: 5/14/10 Time: 14:52
 Received by: (Signature) nanngyle ccc Date: _____ Time: _____
 Received by: (Signature) _____ Date: _____ Time: _____

Revised: 07/23/09



WORK ORDER #: 10-05-1198

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: KMEP

DATE: 05/14/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.1 °C + 0.5°C (CF) = 2.6 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only Initial: KL

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: KL

Sample _____ No (Not Intact) Not Present Initial: PS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

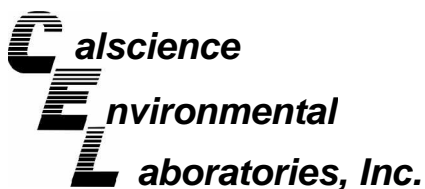
500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBz_{na} 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® **Other:** _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** PS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** WB

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ z_{na}: ZnAc₂+NaOH f: Field-filtered **Scanned by:** PS



July 02, 2010

Alex Padilla
AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Subject: **CalScience Work Order No.: 10-06-2057**
Client Reference: SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 6/25/2010 and analyzed in accordance with the attached chain-of-custody.

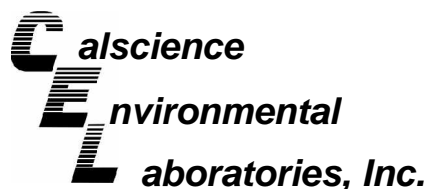
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak', is written over a white background.

CalScience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/25/10
Work Order No: 10-06-2057
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-06-25	10-06-2057-1-G	06/25/10 11:40	Aqueous	GC 27	06/28/10	06/29/10 13:25	100628B06

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Fuel Product	2600	500	430	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
Decachlorobiphenyl	111	68-140				

Method Blank	099-12-384-27	N/A	Aqueous	GC 27	06/28/10	06/29/10 12:31	100628B06
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Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Fuel Product	ND	500	430	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
Decachlorobiphenyl	116	68-140				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/25/10
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-06-25	10-06-2057-1-E	06/25/10 11:40	Aqueous	GC 18	07/01/10	07/01/10 12:38	100701B01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

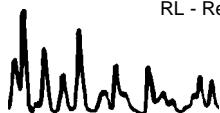
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	4600	500	240	5		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	92	38-134				

Method Blank	099-12-247-4,318	N/A	Aqueous	GC 18	07/01/10	07/01/10 10:45	100701B01
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Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	84	38-134				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/25/10
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: SFPP - Norwalk Site

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-06-25	10-06-2057-1-A	06/25/10 11:40	Aqueous	GC/MS S	06/25/10	06/26/10 08:29	100625L03

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	1000	400	20		1,1-Dichloropropene	ND	20	5.1	20	
Benzene	2200	10	5.7	20		c-1,3-Dichloropropene	ND	10	5.7	20	
Bromobenzene	ND	20	6.7	20		t-1,3-Dichloropropene	ND	10	7.2	20	
Bromochloromethane	ND	20	14	20		Ethylbenzene	61	20	4.4	20	
Bromodichloromethane	ND	20	6.6	20		2-Hexanone	ND	200	140	20	
Bromoform	ND	20	11	20		Isopropylbenzene	5.5	20	4.5	20	J
Bromomethane	ND	200	86	20		p-Isopropyltoluene	ND	20	5.2	20	
2-Butanone	ND	200	140	20		Methylene Chloride	ND	200	52	20	
n-Butylbenzene	ND	20	5.5	20		4-Methyl-2-Pentanone	ND	200	88	20	
sec-Butylbenzene	ND	20	4.1	20		Naphthalene	ND	200	51	20	
tert-Butylbenzene	ND	20	5.5	20		n-Propylbenzene	ND	20	16	20	
Carbon Disulfide	ND	200	38	20		Styrene	ND	20	6.0	20	
Carbon Tetrachloride	ND	10	8.5	20		1,1,1,2-Tetrachloroethane	ND	20	7.0	20	
Chlorobenzene	ND	20	4.4	20		1,1,2,2-Tetrachloroethane	ND	20	8.8	20	
Chloroethane	ND	100	26	20		Tetrachloroethene	ND	20	10	20	
Chloroform	ND	20	6.6	20		Toluene	540	20	6.5	20	
Chloromethane	ND	200	9.7	20		1,2,3-Trichlorobenzene	ND	20	6.1	20	
2-Chlorotoluene	ND	20	11	20		1,2,4-Trichlorobenzene	ND	20	9.7	20	
4-Chlorotoluene	ND	20	4.2	20		1,1,1-Trichloroethane	ND	20	9.0	20	
Dibromochloromethane	ND	20	9.7	20		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	200	13	20	
1,2-Dibromo-3-Chloropropane	ND	100	62	20		1,1,2-Trichloroethane	ND	20	11	20	
1,2-Dibromoethane	ND	20	9.3	20		Trichloroethene	ND	20	6.1	20	
Dibromomethane	ND	20	12	20		Trichlorofluoromethane	ND	200	6.2	20	
1,2-Dichlorobenzene	ND	20	5.4	20		1,2,3-Trichloropropane	ND	100	27	20	
1,3-Dichlorobenzene	ND	20	5.7	20		1,2,4-Trimethylbenzene	62	20	4.9	20	
1,4-Dichlorobenzene	ND	20	4.2	20		1,3,5-Trimethylbenzene	22	20	4.6	20	
Dichlorodifluoromethane	ND	20	9.8	20		Vinyl Acetate	ND	200	140	20	
1,1-Dichloroethane	ND	20	7.5	20		Vinyl Chloride	ND	10	6.5	20	
1,2-Dichloroethane	ND	10	6.3	20		p/m-Xylene	270	20	9.1	20	
1,1-Dichloroethene	ND	20	8.0	20		o-Xylene	110	20	4.7	20	
c-1,2-Dichloroethene	ND	20	9.7	20		Methyl-t-Butyl Ether (MTBE)	170	20	6.1	20	
t-1,2-Dichloroethene	ND	20	8.1	20		Diisopropyl Ether (DIPE)	17	40	6.2	20	J
1,2-Dichloropropane	ND	20	7.6	20		Ethyl-t-Butyl Ether (ETBE)	ND	40	5.3	20	
1,3-Dichloropropane	ND	20	7.6	20		Tert-Amyl-Methyl Ether (TAME)	ND	40	5.7	20	
2,2-Dichloropropane	ND	20	9.2	20		Ethanol	ND	2000	1000	20	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	125	80-126		1,2-Dichloroethane-d4	122	80-131	
Toluene-d8	95	80-120		1,4-Bromofluorobenzene	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/25/10
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: SFPP - Norwalk Site

Page 2 of 2


Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-1,256	N/A	Aqueous	GC/MS S	06/25/10	06/26/10 01:51	100625L03

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	50	20	1		1,1-Dichloropropene	ND	1.0	0.26	1	
Benzene	ND	0.50	0.28	1		c-1,3-Dichloropropene	ND	0.50	0.28	1	
Bromobenzene	ND	1.0	0.33	1		t-1,3-Dichloropropene	ND	0.50	0.36	1	
Bromochloromethane	ND	1.0	0.69	1		Ethylbenzene	ND	1.0	0.22	1	
Bromodichloromethane	ND	1.0	0.33	1		2-Hexanone	ND	10	6.9	1	
Bromoform	ND	1.0	0.55	1		Isopropylbenzene	ND	1.0	0.23	1	
Bromomethane	ND	10	4.3	1		p-Isopropyltoluene	ND	1.0	0.26	1	
2-Butanone	ND	10	6.9	1		Methylene Chloride	ND	10	2.6	1	
n-Butylbenzene	ND	1.0	0.28	1		4-Methyl-2-Pentanone	ND	10	4.4	1	
sec-Butylbenzene	ND	1.0	0.20	1		Naphthalene	ND	10	2.5	1	
tert-Butylbenzene	ND	1.0	0.28	1		n-Propylbenzene	ND	1.0	0.79	1	
Carbon Disulfide	ND	10	1.9	1		Styrene	ND	1.0	0.30	1	
Carbon Tetrachloride	ND	0.50	0.43	1		1,1,1,2-Tetrachloroethane	ND	1.0	0.35	1	
Chlorobenzene	ND	1.0	0.22	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.44	1	
Chloroethane	ND	5.0	1.3	1		Tetrachloroethene	ND	1.0	0.51	1	
Chloroform	ND	1.0	0.33	1		Toluene	ND	1.0	0.33	1	
Chloromethane	ND	10	0.49	1		1,2,3-Trichlorobenzene	ND	1.0	0.31	1	
2-Chlorotoluene	ND	1.0	0.55	1		1,2,4-Trichlorobenzene	ND	1.0	0.49	1	
4-Chlorotoluene	ND	1.0	0.21	1		1,1,1-Trichloroethane	ND	1.0	0.45	1	
Dibromochloromethane	ND	1.0	0.48	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.64	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	3.1	1		1,1,2-Trichloroethane	ND	1.0	0.54	1	
1,2-Dibromoethane	ND	1.0	0.47	1		Trichloroethene	ND	1.0	0.30	1	
Dibromomethane	ND	1.0	0.59	1		Trichlorofluoromethane	ND	10	0.31	1	
1,2-Dichlorobenzene	ND	1.0	0.27	1		1,2,3-Trichloropropane	ND	5.0	1.3	1	
1,3-Dichlorobenzene	ND	1.0	0.28	1		1,2,4-Trimethylbenzene	ND	1.0	0.24	1	
1,4-Dichlorobenzene	ND	1.0	0.21	1		1,3,5-Trimethylbenzene	ND	1.0	0.23	1	
Dichlorodifluoromethane	ND	1.0	0.49	1		Vinyl Acetate	ND	10	7.1	1	
1,1-Dichloroethane	ND	1.0	0.37	1		Vinyl Chloride	ND	0.50	0.33	1	
1,2-Dichloroethane	ND	0.50	0.31	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethene	ND	1.0	0.40	1		o-Xylene	ND	1.0	0.24	1	
c-1,2-Dichloroethene	ND	1.0	0.49	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
t-1,2-Dichloroethene	ND	1.0	0.40	1		Diisopropyl Ether (DIPE)	ND	2.0	0.31	1	
1,2-Dichloropropane	ND	1.0	0.38	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.27	1	
1,3-Dichloropropane	ND	1.0	0.38	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.28	1	
2,2-Dichloropropane	ND	1.0	0.46	1		Ethanol	ND	100	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	106	80-126		1,2-Dichloroethane-d4	101	80-131	
Toluene-d8	98	80-120		1,4-Bromofluorobenzene	92	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/25/10
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-2235-1	Aqueous	GC 18	07/01/10	07/01/10	100701S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	95	98	68-122	3	0-18	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

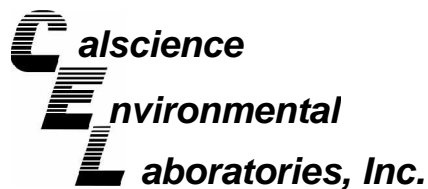
Date Received: 06/25/10
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-1589-7	Aqueous	GC/MS S	06/25/10	06/26/10	100625S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	105	101	80-120	4	0-20	
Carbon Tetrachloride	94	92	55-151	2	0-20	
Chlorobenzene	100	97	80-120	3	0-20	
1,2-Dibromoethane	108	104	77-125	4	0-20	
1,2-Dichlorobenzene	101	101	78-120	1	0-20	
1,2-Dichloroethane	101	97	80-120	4	0-20	
1,1-Dichloroethene	95	91	69-129	4	0-20	
Ethylbenzene	110	107	73-127	3	0-20	
Toluene	106	101	80-120	4	0-20	
Trichloroethene	101	99	67-133	2	0-20	
Vinyl Chloride	96	96	67-133	0	0-20	
Methyl-t-Butyl Ether (MTBE)	105	102	65-131	2	0-22	
Tert-Butyl Alcohol (TBA)	113	110	62-134	2	0-20	
Diisopropyl Ether (DIPE)	108	105	64-136	3	0-29	
Ethyl-t-Butyl Ether (ETBE)	108	106	70-124	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	110	106	71-125	4	0-20	
Ethanol	92	96	44-152	5	0-43	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

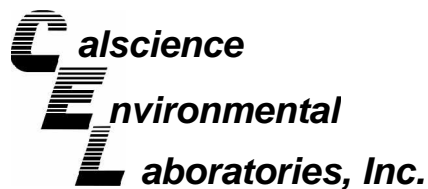
Date Received: N/A
Work Order No: 10-06-2057
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-384-27	Aqueous	GC 27	06/28/10	06/29/10	100628B06

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Fuel Product	113	109	75-117	4	0-13	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-4,318	Aqueous	GC 18	07/01/10	07/01/10	100701B01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	94	95	78-120	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-06-2057
Preparation: EPA 5030B
Method: EPA 8260B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-14-001-1,256	Aqueous	GC/MS S	06/25/10	06/26/10	100625L03		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	109	104	80-120	73-127	5	0-20	
Carbon Tetrachloride	95	91	67-139	55-151	3	0-22	
Chlorobenzene	105	98	80-120	73-127	7	0-20	
1,2-Dibromoethane	110	105	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	113	107	79-120	72-127	5	0-20	
1,2-Dichloroethane	97	92	80-120	73-127	5	0-20	
1,1-Dichloroethene	96	94	71-125	62-134	2	0-25	
Ethylbenzene	117	110	80-123	73-130	6	0-20	
Toluene	109	104	80-120	73-127	5	0-20	
Trichloroethene	108	100	80-120	73-127	8	0-20	
Vinyl Chloride	104	98	68-140	56-152	5	0-23	
Methyl-t-Butyl Ether (MTBE)	111	110	75-123	67-131	1	0-25	
Tert-Butyl Alcohol (TBA)	119	113	72-126	63-135	5	0-20	
Diisopropyl Ether (DIPE)	113	114	75-129	66-138	1	0-22	
Ethyl-t-Butyl Ether (ETBE)	122	120	76-124	68-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	117	113	79-121	72-128	4	0-20	
Ethanol	97	83	53-143	38-158	15	0-25	

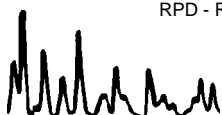
Total number of LCS compounds : 17

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 10-06-2057

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

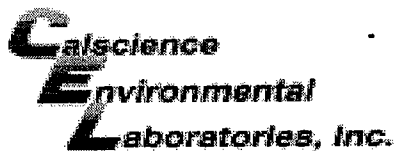


CHAIN OF CUSTODY RECORD

DATE: 06-25-10
 PAGE: 1 OF 1

CE Science
E Environmental
L Laboratories, Inc.
 7440 LINCOLN WAY
 GARDEN GROVE, CA 92841-1432
 TEL: (714) 895-5494 · FAX: (714) 894-7501

LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh 1100 Town & Country Road Orange, CA 92868 TEL: 714-560-4802 FAX: 714-560-4601 E-MAIL: james.dye@kindermorgan.com		CLIENT PROJECT NAME/NUMBER: SFPP - Norwalk Site PROJECT CONTACT: James Dye SAMPLER(S): (SIGNATURE)		P.O. NO.: QUOTE NO.: LAB USE ONLY 06-2057																																																																																																																																																																																																																								
TURNAROUND TIME <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL / /		REQUESTED ANALYSIS																																																																																																																																																																																																																										
SPECIAL INSTRUCTIONS Report to A. Padilla at Geomatrix, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195 "J" flags required/Use lowest possible detection limit - all methods.		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">LAB USE ONLY</th> <th rowspan="2">SAMPLE ID</th> <th rowspan="2">LOCATION/ DESCRIPTION</th> <th colspan="2">SAMPLING</th> <th rowspan="2">NO. OF CONT.</th> <th rowspan="2">MATERIAL</th> <th rowspan="2">DATE</th> <th rowspan="2">TIME</th> <th rowspan="2">VOCs, Full List (8260B)</th> <th rowspan="2">TPH-g (8015M)</th> <th rowspan="2">TPH-fp (8015M)</th> <th rowspan="2">Oil & Grease (413.1)</th> <th rowspan="2">TPH-g (CS-C14 Only) (8015M)</th> <th rowspan="2">MBE;BTEX;1,1-DCA;1,2-DCA;MEK(8260B)</th> <th rowspan="2">Settleable Solids (160.5)</th> <th rowspan="2">Total Suspended Solids (160.2)</th> <th rowspan="2">Phenolics (420.1)</th> <th rowspan="2">Hg,Cr(VI),Cu(1669,7199,6020)</th> <th rowspan="2">Selenium on 24 HR TAT</th> <th rowspan="2">Comments</th> </tr> <tr> <th>DATE</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td></td> <td>INF-06-25</td> <td>Influent</td> <td>06-25-10</td> <td>1140</td> <td>7</td> <td>WW</td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Temperature* = <u>79.4</u></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(Temp. as sampled*)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Monthly</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2"> Relinquished by: (Signature) </td> <td colspan="2"> Received by: (Signature) <i>Pannye cel</i> </td> <td colspan="2"> Date: <u>6/25/10</u> </td> <td colspan="2"> Time: <u>14:23</u> </td> <td colspan="4"></td> <td colspan="2"> Date: </td> <td colspan="2"> Time: </td> <td colspan="4"></td> </tr> <tr> <td colspan="2"> Relinquished by: (Signature) </td> <td colspan="2"> Received by: (Signature) </td> <td colspan="2"> Date: </td> <td colspan="2"> Time: </td> <td colspan="4"></td> <td colspan="2"> Date: </td> <td colspan="2"> Time: </td> <td colspan="4"></td> </tr> <tr> <td colspan="2"> Relinquished by: (Signature) </td> <td colspan="2"> Received by: (Signature) </td> <td colspan="2"> Date: </td> <td colspan="2"> Time: </td> <td colspan="4"></td> <td colspan="2"> Date: </td> <td colspan="2"> Time: </td> <td colspan="4"></td> </tr> </tbody> </table>				LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING		NO. OF CONT.	MATERIAL	DATE	TIME	VOCs, Full List (8260B)	TPH-g (8015M)	TPH-fp (8015M)	Oil & Grease (413.1)	TPH-g (CS-C14 Only) (8015M)	MBE;BTEX;1,1-DCA;1,2-DCA;MEK(8260B)	Settleable Solids (160.5)	Total Suspended Solids (160.2)	Phenolics (420.1)	Hg,Cr(VI),Cu(1669,7199,6020)	Selenium on 24 HR TAT	Comments	DATE	TIME		INF-06-25	Influent	06-25-10	1140	7	WW			X	X											Temperature* = <u>79.4</u>																						(Temp. as sampled*)																						Monthly																																																																			Relinquished by: (Signature)		Received by: (Signature) <i>Pannye cel</i>		Date: <u>6/25/10</u>		Time: <u>14:23</u>						Date:		Time:						Relinquished by: (Signature)		Received by: (Signature)		Date:		Time:						Date:		Time:						Relinquished by: (Signature)		Received by: (Signature)		Date:		Time:						Date:		Time:					
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Revised: 07/23/09																																																																																																																																																																																																																												



WORK ORDER #: 10-06-2057

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KMEP

DATE: 06/25/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature 2.1 °C + 0.5°C (CF) = 2.6 °C [X] Blank [] Sample

[] Sample(s) outside temperature criteria (PM/APM contacted by: _____).

[] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

[] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [] Air [] Filter [] Metals Only [] PCBs Only

Initial: DL

CUSTODY SEALS INTACT:

[] Cooler [] _____ [] No (Not Intact) [X] Not Present [] N/A

Initial: DL

[] Sample [] _____ [] No (Not Intact) [X] Not Present

Initial: [Signature]

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... [X] Yes [] No [] N/A

COC document(s) received complete..... [X] Yes [] No [] N/A

[] Collection date/time, matrix, and/or # of containers logged in based on sample labels.

[] No analysis requested. [] Not relinquished. [] No date/time relinquished.

Sampler's name indicated on COC..... [X] Yes [] No [] N/A

Sample container label(s) consistent with COC..... [X] Yes [] No [] N/A

Sample container(s) intact and good condition..... [X] Yes [] No [] N/A

Proper containers and sufficient volume for analyses requested..... [X] Yes [] No [] N/A

Analyses received within holding time..... [X] Yes [] No [] N/A

pH / Residual Chlorine / Dissolved Sulfide received within 24 hours..... [] Yes [] No [X] N/A

Proper preservation noted on COC or sample container..... [X] Yes [] No [] N/A

[] Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... [X] Yes [] No [] N/A

Tedlar bag(s) free of condensation..... [] Yes [] No [X] N/A

CONTAINER TYPE:

Solid: [] 4ozCGJ [] 8ozCGJ [] 16ozCGJ [] Sleeve (____) [] EnCores® [] TerraCores® [] _____

Water: [] VOA [X] VOAh [] VOAna2 [] 125AGB [] 125AGBh [] 125AGBp [] 1AGB [] 1AGBna2 [] 1AGBs

[] 500AGB [X] 500AGJ [] 500AGJs [] 250AGB [] 250CGB [] 250CGBs [] 1PB [] 500PB [] 500PBna

[] 250PB [] 250PBn [] 125PB [] 125PBzanna [] 100PJ [] 100PJna2 [] _____ [] _____ [] _____

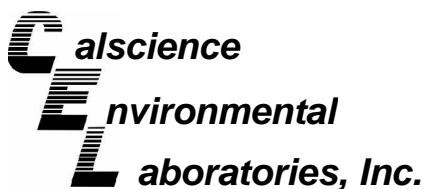
Air: [] Tedlar® [] Summa® Other: [] _____ Trip Blank Lot#: _____ Labeled/Checked by: [Signature]

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: [Signature]

Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: [Signature]



VAPOR



May 11, 2010

Alex Padilla
AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Subject: **CalScience Work Order No.: 10-05-0152**
Client Reference: SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 05/04/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak', is written over a white background.

CalScience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/04/10
Work Order No: 10-05-0152
Preparation: N/A
Method: ASTM D-1946
Units: %v

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-05-04	10-05-0152-1-A	05/04/10 11:55	Air	GC 36	N/A	05/04/10 00:00	100504L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Methane	ND	0.500	0.0981	1		Oxygen + Argon	21.4	0.500	0.370	1	
Carbon Dioxide	0.442	0.500	0.344	1	J						

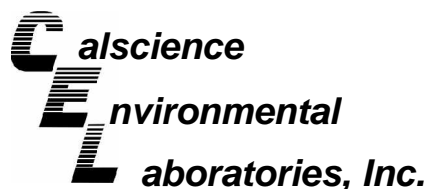
Method Blank	099-03-002-1,041	N/A	Air	GC 36	N/A	05/04/10 00:00	100504L01
--------------	------------------	-----	-----	-------	-----	-------------------	-----------

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Methane	ND	0.500	0.0981	1		Oxygen + Argon	ND	0.500	0.370	1	
Carbon Dioxide	ND	0.500	0.344	1							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/04/10
Work Order No: 10-05-0152
Preparation: N/A
Method: EPA TO-3M

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-05-04	10-05-0152-1-A	05/04/10 11:55	Air	GC 13	N/A	05/04/10 16:33	100504L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	13	1.5	0.17	1		ppm (v/v)

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	098-01-005-2,268	N/A	Air	GC 13	N/A	05/04/10 08:50	100504L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	1.5	0.17	1		ppm (v/v)

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/04/10
Work Order No: 10-05-0152
Preparation: N/A
Method: EPA TO-15M
Units: ppb (v/v)

Project: SFPP - Norwalk Site

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-05-04	10-05-0152-1-A	05/04/10 11:55	Air	GC/MS ZZ	N/A	05/04/10 23:42	100504L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

-The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	160	80	3.2		t-1,2-Dichloroethene	ND	1.6	0.60	3.2	
Benzene	100	1.6	0.30	3.2		t-1,3-Dichloropropene	ND	3.2	0.33	3.2	
Benzyl Chloride	ND	4.8	1.3	3.2		Ethylbenzene	42	1.6	0.36	3.2	
Bromodichloromethane	ND	1.6	0.33	3.2		4-Ethyltoluene	13	1.6	0.58	3.2	
Bromoform	ND	1.6	0.49	3.2		Hexachloro-1,3-Butadiene	ND	4.8	0.58	3.2	
Bromomethane	ND	1.6	0.30	3.2		2-Hexanone	ND	4.8	1.7	3.2	
2-Butanone	7.1	4.8	0.32	3.2		Methyl-t-Butyl Ether (MTBE)	3.4	6.4	0.38	3.2	J
Carbon Disulfide	ND	32	16	3.2		Methylene Chloride	ND	16	3.2	3.2	
Carbon Tetrachloride	ND	1.6	0.32	3.2		4-Methyl-2-Pentanone	ND	4.8	0.48	3.2	
Chlorobenzene	ND	1.6	0.35	3.2		o-Xylene	62	1.6	0.39	3.2	
Chloroethane	ND	1.6	0.49	3.2		p/m-Xylene	160	6.4	2.4	3.2	
Chloroform	ND	1.6	0.29	3.2		Styrene	ND	4.8	0.57	3.2	
Chloromethane	ND	1.6	0.31	3.2		Tetrachloroethene	ND	1.6	0.35	3.2	
Dibromochloromethane	ND	1.6	0.36	3.2		Toluene	170	16	6.4	3.2	
Dichlorodifluoromethane	ND	1.6	0.46	3.2		Trichloroethene	0.73	1.6	0.34	3.2	J
1,1-Dichloroethane	ND	1.6	0.33	3.2		Trichlorofluoromethane	ND	3.2	0.25	3.2	
1,1-Dichloroethene	ND	1.6	0.35	3.2		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	4.8	0.32	3.2	
1,2-Dibromoethane	ND	1.6	0.36	3.2		1,1,1-Trichloroethane	ND	1.6	0.32	3.2	
Dichlorotetrafluoroethane	ND	6.4	0.35	3.2		1,1,2-Trichloroethane	ND	1.6	0.39	3.2	
1,2-Dichlorobenzene	ND	1.6	0.35	3.2		1,3,5-Trimethylbenzene	16	1.6	0.54	3.2	
1,2-Dichloroethane	ND	1.6	0.30	3.2		1,1,2,2-Tetrachloroethane	ND	3.2	0.34	3.2	
1,2-Dichloropropane	ND	1.6	0.37	3.2		1,2,4-Trimethylbenzene	36	4.8	1.0	3.2	
1,3-Dichlorobenzene	ND	1.6	0.42	3.2		1,2,4-Trichlorobenzene	ND	6.4	2.3	3.2	
1,4-Dichlorobenzene	ND	1.6	0.43	3.2		Vinyl Acetate	ND	6.4	1.5	3.2	
c-1,3-Dichloropropene	ND	1.6	0.45	3.2		Vinyl Chloride	ND	1.6	0.32	3.2	
c-1,2-Dichloroethene	ND	1.6	0.42	3.2							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	106	57-129		1,2-Dichloroethane-d4	100	47-137	
Toluene-d8	99	78-156					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 05/04/10
Work Order No: 10-05-0152
Preparation: N/A
Method: EPA TO-15M
Units: ppb (v/v)

Project: SFPP - Norwalk Site

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-509	N/A	Air	GC/MS ZZ	N/A	05/04/10 12:15	100504L01

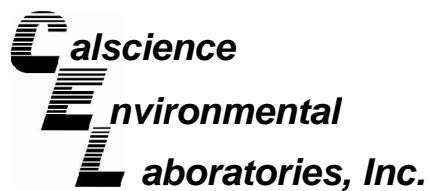
Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	50	25	1		t-1,2-Dichloroethene	ND	0.50	0.19	1	
Benzene	ND	0.50	0.094	1		t-1,3-Dichloropropene	ND	1.0	0.10	1	
Benzyl Chloride	ND	1.5	0.39	1		Ethylbenzene	ND	0.50	0.11	1	
Bromodichloromethane	ND	0.50	0.10	1		4-Ethyltoluene	ND	0.50	0.18	1	
Bromoform	ND	0.50	0.15	1		Hexachloro-1,3-Butadiene	ND	1.5	0.18	1	
Bromomethane	ND	0.50	0.093	1		2-Hexanone	ND	1.5	0.52	1	
2-Butanone	ND	1.5	0.099	1		Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.12	1	
Carbon Disulfide	ND	10	5.0	1		Methylene Chloride	ND	5.0	1.0	1	
Carbon Tetrachloride	ND	0.50	0.098	1		4-Methyl-2-Pentanone	ND	1.5	0.15	1	
Chlorobenzene	ND	0.50	0.11	1		o-Xylene	ND	0.50	0.12	1	
Chloroethane	ND	0.50	0.15	1		p/m-Xylene	ND	2.0	0.76	1	
Chloroform	ND	0.50	0.090	1		Styrene	ND	1.5	0.18	1	
Chloromethane	ND	0.50	0.098	1		Tetrachloroethene	ND	0.50	0.11	1	
Dibromochloromethane	ND	0.50	0.11	1		Toluene	ND	5.0	2.0	1	
Dichlorodifluoromethane	ND	0.50	0.14	1		Trichloroethene	ND	0.50	0.11	1	
1,1-Dichloroethane	ND	0.50	0.10	1		Trichlorofluoromethane	ND	1.0	0.077	1	
1,1-Dichloroethene	ND	0.50	0.11	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	0.10	1	
1,2-Dibromoethane	ND	0.50	0.11	1		1,1,1-Trichloroethane	ND	0.50	0.10	1	
Dichlorotetrafluoroethane	ND	2.0	0.11	1		1,1,2-Trichloroethane	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.11	1		1,3,5-Trimethylbenzene	ND	0.50	0.17	1	
1,2-Dichloroethane	ND	0.50	0.095	1		1,1,2,2-Tetrachloroethane	ND	1.0	0.11	1	
1,2-Dichloropropane	ND	0.50	0.11	1		1,2,4-Trimethylbenzene	ND	1.5	0.33	1	
1,3-Dichlorobenzene	ND	0.50	0.13	1		1,2,4-Trichlorobenzene	ND	2.0	0.72	1	
1,4-Dichlorobenzene	ND	0.50	0.13	1		Vinyl Acetate	ND	2.0	0.45	1	
c-1,3-Dichloropropene	ND	0.50	0.14	1		Vinyl Chloride	ND	0.50	0.10	1	
c-1,2-Dichloroethene	ND	0.50	0.13	1							

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	57-129		1,2-Dichloroethane-d4	100	47-137	
Toluene-d8	97	78-156					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

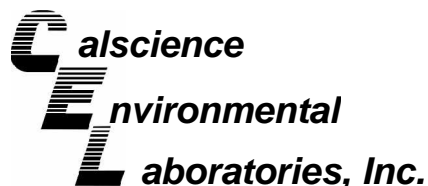
Date Received: 05/04/10
Work Order No: 10-05-0152
Preparation: N/A
Method: EPA TO-3M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
10-05-0083-1	Air	GC 13	N/A	05/04/10	100504D01

<u>Parameter</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	7.2	7.4	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-05-0152
Preparation: N/A
Method: ASTM D-1946

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,041	Air	GC 36	N/A	05/04/10	100504L01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon Dioxide	107	107	80-120	0	0-30	
Oxygen + Argon	98	97	80-120	1	0-30	
Nitrogen	98	97	80-120	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-05-0152
Preparation: N/A
Method: EPA TO-15M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-981-509	Air	GC/MS ZZ	N/A	05/04/10	100504L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	93	90	60-156	44-172	4	0-40	
Carbon Tetrachloride	99	96	64-154	49-169	3	0-32	
1,2-Dibromoethane	98	98	54-144	39-159	0	0-36	
1,2-Dichlorobenzene	101	98	34-160	13-181	3	0-47	
1,2-Dichloroethane	96	94	69-153	55-167	2	0-30	
1,2-Dichloropropane	95	93	67-157	52-172	2	0-35	
1,4-Dichlorobenzene	100	96	36-156	16-176	4	0-47	
c-1,3-Dichloropropene	103	101	61-157	45-173	2	0-35	
Ethylbenzene	97	93	52-154	35-171	4	0-38	
o-Xylene	97	93	52-148	36-164	4	0-38	
p/m-Xylene	96	92	42-156	23-175	4	0-41	
Tetrachloroethene	96	96	56-152	40-168	1	0-40	
Toluene	96	94	56-146	41-161	2	0-43	
Trichloroethene	95	92	63-159	47-175	4	0-34	
1,1,2-Trichloroethane	98	96	65-149	51-163	2	0-37	
Vinyl Chloride	92	95	45-177	23-199	3	0-36	

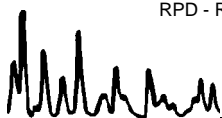
Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

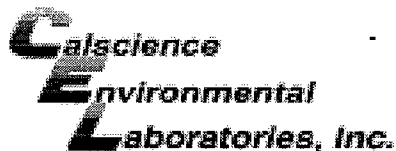
RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 10-05-0152

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.





WORK ORDER #: 10-05-0152

SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: Kinder Morgan

DATE: 05/04/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature _____ °C + 0.5 °C (CF) = _____ °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only Initial: PS

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: PS

Sample _____ No (Not Intact) Not Present Initial: [Signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Water: VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s

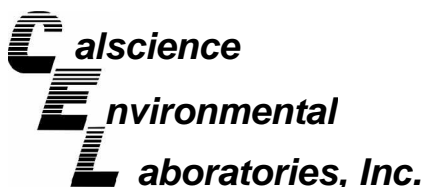
500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 500PB 500PB_{na}

250PB 250PB_n 125PB 125PB_{z_{na}} 100PJ 100PJ_{na2} _____ _____ _____

Air: Tedlar® Summa® **Other:** _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** [Signature]

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** [Signature]

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ z_{na}: ZnAc₂+NaOH f: Field-filtered **Scanned by:** [Signature]



July 07, 2010

Alex Padilla
AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Subject: **Calscience Work Order No.: 10-06-2242**
Client Reference: SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 6/29/2010 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Nowak".

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

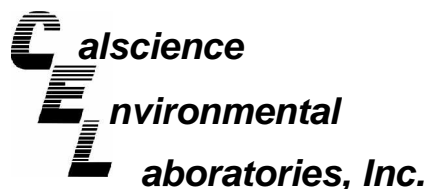
Case Narrative

Work Order # 10-06-2242 Modified EPA TO-14A or EPA TO-15

EPA Methods TO-14A and TO-15 describe gas chromatographic procedures that will allow for that separation of volatile organic compounds and their qualitative and quantitative analysis by mass spectrometry (GC/MS). A known volume of sample is directed from the container (Summa® canister or Tedlar™ bag) through a solid multi-module (glass beads, tenex, cryofocuser) concentrator. Following concentration, the VOCs are thermally desorbed onto a gas chromatographic column for separation and then detected on a mass selective detector.

Comparison of EPA TO-14A/TO-15 versus Calscience EPA TO-14A/TO-15 (Modified)

Requirement	EPA Method	Calscience Modifications
BFB Acceptance Criteria	CLP Protocol	SW846 Protocol
Initial Calibration	Allowable % RSD for each Target Analyte \leq 30%, two analytes allowed \leq 40%	Allowable % RSD for each Target Analyte \leq 30%, 10% of analytes allowed \leq 40%
Initial Calibration Verification (ICV) - Second Source Standard (LCS)	Not Mentioned	Analytes contained in the LCS standard evaluated against historical control limits for the LCS
Daily Calibration Verification (CCV)	Allowable % Difference for each Target Analyte is \leq 30%	Full List Analysis: Allowable % Difference for each CCC analyte is \leq 30%
		Target List Analysis: Allowable % Difference for each target analytes is \leq 30%
Daily Calibration Verification (CCV) - Internal Standard Area Response	Allowable +/- 40% (Range: 60% to 140%)	Allowable +/- 50% (Range: 50% to 150%)
Method Blank, Laboratory Control Sample and Sample - Internal Standard Area Response	Allowable +/- 40% of the mean area response of most recent Initial Calibration (Range: 60% to 140%)	Allowable +/- 50% of the mean area response of the most recent Calibration Verification (Range: 50% to 150%)
Surrogates	Not Mentioned	1,4-Bromofluorobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S



Analytical Report



AMEC Geomatrix, Inc.
 510 Superior Avenue
 Suite 200
 Newport Beach, CA 92663-3627

Date Received: 06/29/10
 Work Order No: 10-06-2242
 Preparation: N/A
 Method: ASTM D-1946
 Units: %v

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-06-29	10-06-2242-1-A	06/29/10 12:20	Air	GC 36	N/A	06/29/10 00:00	100629L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

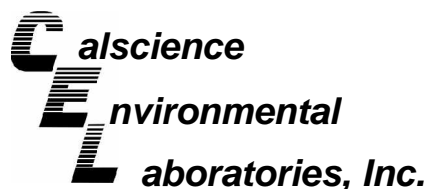
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Methane	ND	0.500	0.0981	1		Oxygen + Argon	21.3	0.500	0.370	1	
Carbon Dioxide	0.403	0.500	0.344	1	J						

Method Blank	099-03-002-1,077	N/A	Air	GC 36	N/A	06/29/10 00:00	100629L01
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Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Methane	ND	0.500	0.0981	1		Oxygen + Argon	ND	0.500	0.370	1	
Carbon Dioxide	ND	0.500	0.344	1							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/29/10
Work Order No: 10-06-2242
Preparation: N/A
Method: EPA TO-3M

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-06-29	10-06-2242-1-A	06/29/10 12:20	Air	GC 13	N/A	06/29/10 15:25	100629L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	9.3	1.5	0.17	1		ppm (v/v)

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	098-01-005-2,389	N/A	Air	GC 13	N/A	06/29/10 08:44	100629L01

Comment(s): -Results were evaluated to the MDL, concentrations \geq to the MDL but $<$ RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	1.5	0.17	1		ppm (v/v)

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/29/10
Work Order No: 10-06-2242
Preparation: N/A
Method: EPA TO-15M
Units: ppb (v/v)

Project: SFPP - Norwalk Site

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-06-29	10-06-2242-1-A	06/29/10 12:20	Air	GC/MS K	N/A	06/29/10 18:30	100629L01

Comment(s): -The method has been modified to use Tedlar bags instead of Summa Canisters.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	120	2.5		t-1,2-Dichloroethene	ND	1.2	2.5	
Benzene	74	1.2	2.5		t-1,3-Dichloropropene	ND	2.5	2.5	
Benzyl Chloride	ND	3.8	2.5		Ethylbenzene	13	1.2	2.5	
Bromodichloromethane	ND	1.2	2.5		4-Ethyltoluene	6.4	1.2	2.5	
Bromoform	ND	1.2	2.5		Hexachloro-1,3-Butadiene	ND	3.8	2.5	
Bromomethane	ND	1.2	2.5		2-Hexanone	ND	3.8	2.5	
2-Butanone	71	3.8	2.5		Methyl-t-Butyl Ether (MTBE)	ND	5.0	2.5	
Carbon Disulfide	ND	25	2.5		Methylene Chloride	ND	12	2.5	
Carbon Tetrachloride	ND	1.2	2.5		4-Methyl-2-Pentanone	ND	3.8	2.5	
Chlorobenzene	ND	1.2	2.5		o-Xylene	22	1.2	2.5	
Chloroethane	ND	1.2	2.5		p/m-Xylene	60	5.0	2.5	
Chloroform	ND	1.2	2.5		Styrene	ND	3.8	2.5	
Chloromethane	ND	1.2	2.5		Tetrachloroethene	ND	1.2	2.5	
Dibromochloromethane	ND	1.2	2.5		Toluene	66	12	2.5	
Dichlorodifluoromethane	ND	1.2	2.5		Trichloroethene	12	1.2	2.5	
1,1-Dichloroethane	ND	1.2	2.5		Trichlorofluoromethane	ND	2.5	2.5	
1,1-Dichloroethene	ND	1.2	2.5		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	3.8	2.5	
1,2-Dibromoethane	ND	1.2	2.5		1,1,1-Trichloroethane	ND	1.2	2.5	
Dichlorotetrafluoroethane	ND	5.0	2.5		1,1,2-Trichloroethane	ND	1.2	2.5	
1,2-Dichlorobenzene	ND	1.2	2.5		1,3,5-Trimethylbenzene	7.8	1.2	2.5	
1,2-Dichloroethane	ND	1.2	2.5		1,1,2,2-Tetrachloroethane	ND	2.5	2.5	
1,2-Dichloropropane	ND	1.2	2.5		1,2,4-Trimethylbenzene	18	3.8	2.5	
1,3-Dichlorobenzene	ND	1.2	2.5		1,2,4-Trichlorobenzene	ND	5.0	2.5	
1,4-Dichlorobenzene	ND	1.2	2.5		Vinyl Acetate	ND	5.0	2.5	
c-1,3-Dichloropropene	ND	1.2	2.5		Vinyl Chloride	ND	1.2	2.5	
c-1,2-Dichloroethene	ND	1.2	2.5						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	98	57-129			1,2-Dichloroethane-d4	98	47-137		
Toluene-d8	101	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: 06/29/10
Work Order No: 10-06-2242
Preparation: N/A
Method: EPA TO-15M
Units: ppb (v/v)

Project: SFPP - Norwalk Site

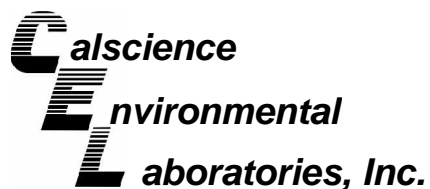
Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-981-613	N/A	Air	GC/MS K	N/A	06/29/10 13:47	100629L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		t-1,2-Dichloroethene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	1.0	1	
Benzyl Chloride	ND	1.5	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		4-Ethyltoluene	ND	0.50	1	
Bromoform	ND	0.50	1		Hexachloro-1,3-Butadiene	ND	1.5	1	
Bromomethane	ND	0.50	1		2-Hexanone	ND	1.5	1	
2-Butanone	ND	1.5	1		Methyl-t-Butyl Ether (MTBE)	ND	2.0	1	
Carbon Disulfide	ND	10	1		Methylene Chloride	ND	5.0	1	
Carbon Tetrachloride	ND	0.50	1		4-Methyl-2-Pentanone	ND	1.5	1	
Chlorobenzene	ND	0.50	1		o-Xylene	ND	0.50	1	
Chloroethane	ND	0.50	1		p/m-Xylene	ND	2.0	1	
Chloroform	ND	0.50	1		Styrene	ND	1.5	1	
Chloromethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		Toluene	ND	5.0	1	
Dichlorodifluoromethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		Trichlorofluoromethane	ND	1.0	1	
1,1-Dichloroethene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1	
1,2-Dibromoethane	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dichlorotetrafluoroethane	ND	2.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	1.0	1	
1,2-Dichloropropane	ND	0.50	1		1,2,4-Trimethylbenzene	ND	1.5	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	2.0	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	2.0	1	
c-1,3-Dichloropropene	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,4-Bromofluorobenzene	100	57-129			1,2-Dichloroethane-d4	107	47-137		
Toluene-d8	103	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

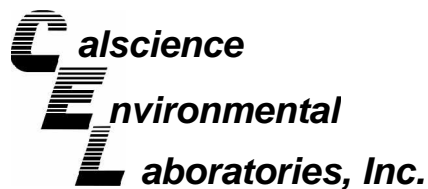
Date Received: 06/29/10
Work Order No: 10-06-2242
Preparation: N/A
Method: EPA TO-3M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
INF-06-29	Air	GC 13	N/A	06/29/10	100629D01

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	9.3	9.1	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-06-2242
Preparation: N/A
Method: ASTM D-1946

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,077	Air	GC 36	N/A	06/29/10	100629L01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon Dioxide	93	92	80-120	1	0-30	
Oxygen + Argon	87	87	80-120	1	0-30	
Nitrogen	88	87	80-120	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: N/A
Work Order No: 10-06-2242
Preparation: N/A
Method: EPA TO-15M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-981-613	Air	GC/MS K	N/A	06/29/10	100629L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	82	86	60-156	44-172	5	0-40	
Carbon Tetrachloride	86	91	64-154	49-169	6	0-32	
1,2-Dibromoethane	87	91	54-144	39-159	4	0-36	
1,2-Dichlorobenzene	84	86	34-160	13-181	2	0-47	
1,2-Dichloroethane	90	94	69-153	55-167	4	0-30	
1,2-Dichloropropane	92	95	67-157	52-172	4	0-35	
1,4-Dichlorobenzene	83	85	36-156	16-176	2	0-47	
c-1,3-Dichloropropene	102	107	61-157	45-173	5	0-35	
Ethylbenzene	89	92	52-154	35-171	3	0-38	
o-Xylene	88	91	52-148	36-164	3	0-38	
p/m-Xylene	88	91	42-156	23-175	3	0-41	
Tetrachloroethene	86	91	56-152	40-168	5	0-40	
Toluene	84	88	56-146	41-161	5	0-43	
Trichloroethene	84	89	63-159	47-175	5	0-34	
1,1,2-Trichloroethane	91	95	65-149	51-163	5	0-37	
Vinyl Chloride	93	100	45-177	23-199	8	0-36	

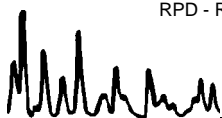
Total number of LCS compounds : 16

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

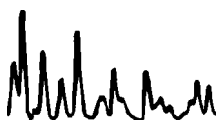
LCS ME CL validation result : Pass

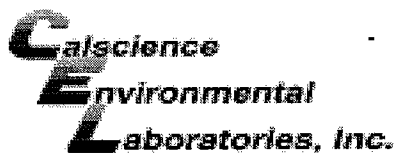
RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 10-06-2242

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.





WORK ORDER #: 10-06-2242

SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: KMep

DATE: 06/29/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature . °C + 0.5°C (CF) = . °C [] Blank [] Sample

[] Sample(s) outside temperature criteria (PM/APM contacted by:)

[] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

[] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [x] Air [] Filter [] Metals Only [] PCBs Only

Initial: PL

CUSTODY SEALS INTACT:

[] Cooler [] [] No (Not Intact) [] Not Present [x] N/A

Initial: PL

[] Sample [] [] No (Not Intact) [x] Not Present

Initial: PL

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... [x] Yes [] No [] N/A

COC document(s) received complete..... [x] Yes [] No [] N/A

[] Collection date/time, matrix, and/or # of containers logged in based on sample labels.

[] No analysis requested. [] Not relinquished. [] No date/time relinquished.

Sampler's name indicated on COC..... [x] Yes [] No [] N/A

Sample container label(s) consistent with COC..... [x] Yes [] No [] N/A

Sample container(s) intact and good condition..... [x] Yes [] No [] N/A

Proper containers and sufficient volume for analyses requested..... [x] Yes [] No [] N/A

Analyses received within holding time..... [x] Yes [] No [] N/A

pH / Residual Chlorine / Dissolved Sulfide received within 24 hours..... [] Yes [] No [x] N/A

Proper preservation noted on COC or sample container..... [] Yes [] No [x] N/A

[] Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... [] Yes [] No [x] N/A

Tedlar bag(s) free of condensation..... [x] Yes [] No [] N/A

CONTAINER TYPE:

Solid: [] 4ozCGJ [] 8ozCGJ [] 16ozCGJ [] Sleeve () [] EnCores® [] TerraCores® []

Water: [] VOA [] VOA h [] VOANa2 [] 125AGB [] 125AGBh [] 125AGBp [] 1AGB [] 1AGBna2 [] 1AGBs

[] 500AGB [] 500AGJ [] 500AGJs [] 250AGB [] 250CGB [] 250CGBs [] 1PB [] 500PB [] 500PBna

[] 250PB [] 250PBn [] 125PB [] 125PBzanna [] 100PJ [] 100PJna2 [] [] [] []

Air: [x] Tedlar® [] Summa® Other: [] Trip Blank Lot#: Labeled/Checked by: PL

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: PL

Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: PL