

REMEDIATION PROGRESS REPORT FIRST QUARTER 2010

DEFENSE FUEL SUPPORT POINT NORWALK NORWALK, CALIFORNIA

Prepared for:

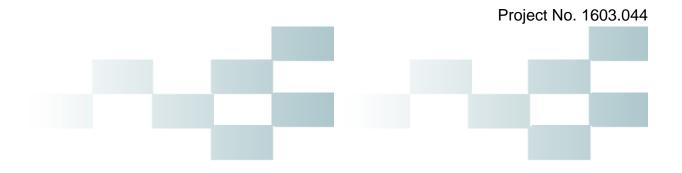
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REMEDIATION PROGRESS REPORT – FIRST QUARTER 2010 DEFENSE FUEL SUPPORT POINT, NORWALK NORWALK, CALIFORNIA

April 15, 2010 Project No. 1603.044

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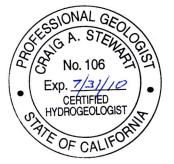




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REMEDIATION PROGRESS REPORT FIRST QUARTER 2010 SFPP, L.P. Defense Fuel Support Point Norwalk Norwalk, California

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 first 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 January through March 2010 with documentation of the following tasks:

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

The remediation activities performed during January through March 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), groundwater extraction (GWE; extraction of groundwater only), 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 and the system has not operated since that time.

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 first quarter 2010.

The TFE/GWE system was shut down on December 3, 2009 to re-evaluate selenium concentrations in groundwater from extraction wells. During the 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 to be pumping when the system was restarted in 2010: GMW-24, MW-SF-12, MW-SF-13, MW-SF-16, MW-O-2, GMW-O-11, GMW-O-23, GMW-O-15, 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 µg/L). During the shutdown period, additional repairs and enhancements were made to the TFE/GWE system including cleaning and repair



of TFE pumps, replacement of TFE pumps unable to be repaired, replacement of components of the groundwater manifold, and replacement of the conveyance piping in certain areas. A letter detailing conditions leading to the shutdown period, restart of the TFE/GWE system, and planned activities was prepared and sent to the City of Norwalk on March 11, 2010. A memorandum describing selenium management options reviewed for SFPP's groundwater remediation system, including background information, NPDES discharge options, and alternative discharge scenarios was prepared and submitted to the RWQCB on April 1, 2010.

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);
- monthly checks 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. Remediation system operation activities for the first quarter 2010 are summarized in Tables 2 and 3. The remediation systems operated continuously during first quarter 2010 with the following exceptions.

- The SVE system shut down on January 6, 11, and 12, 2010 due to main breaker trips. The breaker was reset and the system was restarted on January 11 and January 12 following the first two shutdowns. After the third shutdown it was determined that the blower motor was damaged and tripping the breaker. The SVE system remained shutdown until a replacement motor could be installed on February 1, 2010 and additional testing was performed on February 2, 2010. The SVE system was restarted on February 2, 2010.
- The TFE/GWE system was restarted on February 4, 2010, after being shut down on December 3, 2009, following an evaluation of selenium concentrations in extraction wells and after completion of maintenance activities.
- The TFE/GWE system shut down on three dates between February 12 and February 19, 2010 due to high level alarms for the transfer tank. The dates of the



shutdowns could not be determined because the operating-hours meter was found to have failed. The bag filters were changed and the TFE/GWE system was restarted on February 16, 19, and 23, 2010, after each instance of shutdown. The operating-hours meter was replaced and the bag filter housing was cleaned on February 22, 2010.

- The TFE/GWE system shut down on March 4, 2010 due to a high level alarm for the transfer tank. The bag filters were changed and the TFE/GWE system was restarted on March 5, 2010.
- The TFE/GWE system and the SVE system both shut down on March 17, 2010 due to power loss. Power returned and the systems were both restarted on March 19, 2010.
- The SVE system shut down on March 19, March 22, and March 25, 2010 due to main breaker trips. The breaker was reset and the SVE system was restarted on March 22, March 23, and March 25, 2010, respectively. The main SVE breaker was replaced on March 25, 2010.

Overall, during first quarter 2010, the SVE system operated 56% of the time (61% excluding system shutdown due to power loss) while the TFE/GWE system operated 40% of the time (68% excluding planned shutdowns for system maintenance and power loss).

Vapor samples from the SVE system influent and water samples from TFE/GWE system influent were collected during the first quarter 2010 when the systems were in operation. During first quarter 2010, influent vapor samples were collected in February and March when both SVE and TFE/GWE systems were operating. Influent water samples were collected in February and March 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 flame ionization detector (FID) or 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 144 pounds during the first quarter of 2010, for a cumulative mass removed of approximately 15,775 pounds since implementing the Second Addendum system upgrades. The cumulative mass removed by SVE does not include the mass removed by biodegradation.

Approximately 933,223 gallons of groundwater were extracted during the first quarter 2010. This total includes approximately 739,990 gallons of water from the south-central area and 193,233 gallons of water from the southeastern area. The West Side Barrier groundwater extraction system was shut down in third quarter 2008 and remained shut down during first quarter 2010.

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 (μ g/L) and 70 μ g/L, respectively. 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.

Removal of free product using TFE continued during first 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 and southeastern areas was approximately 58 pounds during first quarter 2010 for a cumulative mass removed from these areas of approximately 926 pounds since implementing system upgrades described in the Second Addendum. The mass of TPHg removed by TFE and GWE by a limited number of wells in two months was greater than one-third the mass of TPHg removed during 2009 due to higher concentrations of TPHg in extracted groundwater. 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

While the SVE system was operating during first quarter 2010, VOC concentrations were measured in individual wells using an FID or PID on an approximately monthly basis, shown on Table 6. The operation status of the SVE wells at the end of the first quarter 2010 is also shown on Table 6. Because PID readings recorded on March 20, 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 fourth quarter 2009 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 first quarter 2010, free product was detected in five 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 optimized 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 two 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 and in the Remediation Progress for the fourth quarter 2009.

6.0 PLANNED SECOND QUARTER 2010 ACTIVITIES

During the second guarter 2010, AMEC plans to continue coordinating with SFPP 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. The SVE system for the south-central and southeastern areas will continue to operate. 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 second quarter 2010 will be described in the second quarter 2010 remediation progress report to be submitted by July 15, 2010.



7.0 REFERENCES

- AMEC, Letter dated March 11, 2010 to Mr. Thomas E. Lynch, City of Norwalk; Re: Holifield Park and Second Semiannual Groundwater Monitoring Report for 2009, SFPP Norwalk, 15306 Norwalk Boulevard, Norwalk, California
- AMEC, 2010, Remediation Progress Report, Fourth Quarter 2009 and Annual 2009 Summary, January 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 First Quarter 2010 ¹
	MW-SF-1	6/18/1990	78.93	25 - 40	SVE	ON
	MW-SF-2	6/18/1990	78.53	25 - 40	SVE; TFE	ON; OFF
	MW-SF-3	6/18/1990	78.12	25 - 40	SVE; TFE	ON; OFF
	MW-SF-4	6/19/1990	79.38	25 - 40	SVE	OFF
	MW-SF-5	9/19/1990	79.74	23 - 38	SVE	ON
	MW-SF-6	9/19/1990	76.80	25 - 40	SVE; TFE	ON; 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	ON; OFF
	MW-SF-12	6/18/2007	78.07	20 - 40	SVE; TFE	OFF; ON
	MW-SF-13	6/19/2007	73.40	20 - 40	SVE; TFE	ON; ON
	MW-SF-14	6/21/2007	78.16	20 - 40	SVE; TFE	OFF; OFF
	MW-SF-15	6/21/2007	78.27	20 - 40	SVE; TFE	ON; OFF
	MW-SF-16	6/20/2007	78.21	20 - 40	SVE; TFE	ON; ON
	GMW-9	7/8/1991	74.44	20 - 50	SVE; TFE	OFF; OFF
South-Central	GMW-10	7/8/1991	74.67	25 - 50	SVE	ÓN
	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; ON
	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	ON
	VEW-2				SVE	ON
	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	ON; ON
	GMW-O-12	5/21/1992	73.49	20 - 50	SVE	OFF
	GMW-O-20	6/15/1995	73.32		SVE; TFE	ON; 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; ON
	MW-18 (MID)	6/10/1991	75.67	50 - 60	SVE	OFF
	HW-2				SVE	ON
	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
Southeastern	GMW-36	4/11/1994	74.53	20 - 50	TFE	OFF
	GMW-SF-9	4/1/2003	73.00	37 - 46	GWE	OFF
	GMW-SF-10	4/2/2003	75.77	37 - 46	GWE	OFF
	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
West Side	BW-5	5/23/1996	73.59	27 - 46	GWE	OFF
Barrier	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

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 Totals ³	58,319	2,058					343
2008 Totals	64,233	5,915					4,428
2009 Totals	68,858	4,489					10,860
01/06/10	68,906.7	48.5		11	1,681	30	13
01/12/10	68,916.5	9.8		4	1,237	30	1
02/04/10	68,965.1	48.6		20	1,318	30	19
02/09/10	69,084.6	119.5		5	963	25	9
02/12/10	69,154.0	69.4		14	918	25	13
02/16/10	69,253.5	99.5		327	80	25	39
02/24/10	69,442.9	189.4	20 ⁴	38	47	15	5
03/02/10	69,582.1	139.2		33	41	10	3
03/09/10	69,749.6	167.5		51	41	30	5
03/16/10	69,916.2	166.6		26	396	30	25
03/23/10	69,934.7	18.5	18 ⁵	4	358	20	0
03/30/10	70,038.2	103.5		18	362	25	10
First Quarter 2010 Totals	70,038	1,180					144
umulative Mass Removed Sir	nce Implementati	on of RAP Upgra	ldes ⁶				15,775

Notes:

1. 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.

2. The total mass removed based on influent FID or PID readings, hours of operation, and flow rate.

3. The 2007 total includes only operation after upgrades were made to the South-Central system.

4. This influent vapor sample was collected on February 26, 2010.

5. This influent vapor sample was collected on March 26, 2010.

6. 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

 H_20 = inches of water

-- = not applicable



TABLE 3 GROUNDWATER REMEDIATION SYSTEM OPERATION SUMMARY

System Inspection Date 2007 Totals ³ 2008 Totals	Groundwater Removed from the South-Central Area (gallons) 2,080,762 5,391,860	Groundwater Removed from the Southeastern Area (gallons) 529,411 700,882	Groundwater Removed from the West Side Barrier Area (gallons) 630,877 405,954 ⁴	Influent TPHg Concentration (μg/L) ¹ 	TPHg Removed from the South-Central and Southeastern Areas (pounds) ² 395 311
2009 Totals	8,044,836	770,869	0		161
02/08/10 ⁵	87,327	8,159	0	8,000	6.37
02/12/10	74,192	18,214	0	8,000	6.16
02/16/10	2,475	1,153	0	8,000	0.24
02/19/10	6,387	6,932	0	8,000	0.89
02/22/10	39,881	11,084	0	8,000	3.40
02/23/10	24	0	0	8,000	0.00
02/24/10	13,159	3,300	0	8,000	1.10
02/26/10	35,653	10,173	0	8,000	3.06
03/02/10	72,817	21,958	0	8,000	6.32
03/03/10	15,966	5,160	0	8,000	1.41
03/05/10	10,797	3,370	0	8,000	0.94
03/09/10	70,304	22,642	0	7,000	5.42
03/12/10	54,209	17,436	0	7,000	4.18
03/16/10	67,329	21,520	0	7,000	5.18
03/18/10	18,973	5,109	0	7,000	1.41
03/19/10	9	0	0	7,000	0.00
03/22/10	8,378	1,888	0	7,000	0.60
03/23/10	20,986	4,285	0	7,000	1.47
03/26/10	64,286	13,076	0	7,000	4.51
03/29/10	66,022	12,974	0	7,000	4.61
03/30/10	10,816	4,800	0	7,000	0.91
First Quarter 2010 Totals	739,990	193,233	0		58
Cumulative TPHg Removed	Since Implementation o	f RAP Upgrades ⁶			926

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

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 and southeastern 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.

3. The 2007 total includes only operation after upgrades were made to the South-Central system.

4. Groundwater removal in the West Side Barrier Area was discontinued in August, 2008.

5. The groundwater remediation system was restarted on February 4, 2010 following evaluation of selenium concentrations in the extraction wells.

6. 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).

 $\mu g/L = micrograms per liter$



TABLE 4 EXTRACTED VAPOR ANALYTICAL RESULTS¹

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

Date	Total Fluids	ASTM D-1946			EPA TO-3		EPA TO-15 (VOCs) ²			
Sampled	Extraction System Status	Methane (%v) ³	Carbon Dioxide (%v)	Oxygen & Argon (%v)	TPHg ⁴ (ppmv)⁵	Benzene (ppbv) ⁶	Ethylbenzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE ⁷ (ppbv)
8/3/2007	ON	<0.5 ⁸	<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

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 RESULTS¹

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

Date	EPA 80	015M	EPA	EPA 8260B Volatile Organic Compounds (VOCs) ²						
Sampled	TPHg	TPHfp	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE			
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(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			

Notes:

1. Influent samples were collected from the manifold conveying groundwater extracted from the south-central and southeastern areas.

2. Other detected VOCs are included in the laboratory analytical reports in Appendix A.

3. TPHfp result from influent extracted groundwater sample collected on July 10, 2008.

Abbreviations:

TPHg = total petroleum hydrocarbons as gasoline (C4-C12)

 $\mu g/L = micrograms per liter$

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 REMEDIATION WELL VAPOR CONCENTRATIONS

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

Remediation	Remediation	Remediation	Well Operation Status at End of	2/42/2040	2/42/2040	2/20/2010
Area	Well ID	Well Function ¹	First Quarter	2/12/2010	3/12/2010	3/30/2010
			2010 ²	(ppmv as Hexane)	(ppmv as Hexane)	
	MW-SF-1	SVE	ON	21.2	15.8	170.9
	MW-SF-2	SVE; TFE	ON; OFF	17.1	169.4	67.9
	MW-SF-3	SVE; TFE	ON; OFF	57.8	41.8	236.8
	MW-SF-4	SVE	OFF	313.6	34.4	17.2
	MW-SF-5	SVE	ON	11.0	23.4	208.8
	MW-SF-6	SVE; TFE	ON; OFF	15.1	141.8	235.9
	MW-SF-9	SVE	OFF	3.9	2.7	3.3
	MW-SF-10	SVE	OFF	6.9	9.2	4.6
	MW-SF-11	SVE; TFE	ON; OFF	2.0	0.1	51.8
	MW-SF-12	SVE; TFE	OFF; ON	188.6	226.7	28.5
	MW-SF-13	SVE; TFE	ON; ON	24.5	35.4	54.4
	MW-SF-14	SVE; TFE	OFF; OFF	20.8	88.4	24.0
	MW-SF-15	SVE; TFE	ON; OFF	714.8	199.2	343.5
	MW-SF-16	SVE; TFE	ON; ON	162.4	328.7	412.2
South-Central	GMW-9	SVE; TFE	OFF; OFF	17.2	88.5	5.1
South-Central	GMW-10	SVE	ON	41.9	35.1	226.0
	GMW-22	SVE; TFE	OFF; OFF	17.2	88.5	5.1
	GMW-24	SVE; TFE	OFF; ON	1.5	2.4	2.6
	GMW-25	SVE; GWE	OFF; OFF	1.5	2.4	2.6
	GWR-3	SVE; GWE	OFF; OFF	9.8	0.4	5.7
	VEW-1	SVE	ON	41.9	6.9	187.0
	VEW-2	SVE	ON	395.6		164.0
	MW-O-1	SVE; TFE	OFF; OFF	7.4	30.6	12.1
	MW-O-2	SVE; TFE	OFF; OFF	4.8	0.5	6.9
	GMW-O-11	SVE; TFE	ON; ON	3.4	9.7	224.9
	GMW-O-12	SVE	OFF	7.9	8.4	24.0
	GMW-O-20	SVE; TFE	ON; OFF	31.2	50.2	179.3
	GMW-O-23	SVE; TFE	OFF; ON	7.9	3.7	5.6
	MW-18 (MID)	SVE	OFF	5.8	24.7	7.1
	HW-2	SVE	ON	30.5	86.4	96.7
Southeastern	GMW-O-15	SVE; TFE	OFF; ON	9.0	36.3	12.6
Soumeasiem	GMW-O-18	SVE; TFE	OFF; ON	9.0	36.3	12.6

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

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
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
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
GMW-23	11/12/2007	74.85	25.41			49.44	Stantec
	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
0101/ 04	10/19/2009	74.85	27.51			47.34	Blaine Tech
GMW-24	11/12/2007	74.04	27.50	27.46	0.04		Stantec
	8/19/2008	74.04	29.34	28.24	1.10		Envent
	10/17/2008	74.04	30.88	29.90 28.30	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 Envent
	1/15/2009	74.04	30.56	29.80	0.76		
	3/20/2009	74.04	31.28			42.76	Envent Envent
	3/27/2009	74.04	30.45			43.59	
	4/21/2009	74.04	29.91			44.13 41.26	Envent
	7/21/2009 2/4/2010	74.04 74.04	32.78 29.67	29.40	0.27	41.26	Envent Kinder Morgan
GMW-25	11/12/2007	74.04		29.40	0.27		Kinder Morgan Stantec
GIVI VV-20	8/12/2007	74.29 74.29	27.30 27.81	27.25	0.05	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 Envent
	3/24/2009	74.29	28.79			45.50	
	4/21/2009	74.29	28.35			45.94	Envent
	7/21/2009 10/19/2009	74.29 74.29	29.80 30.28			44.49 44.01	Envent Blaine Tech



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
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
GMW-36	8/28/2007	74.53	24.31			50.22	Stantec
	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
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	Stantec
	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



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-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
	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
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
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
0	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			49.89	Envent
	11/9/2009	73.63	27.50			46.13	Kinder Morgan
GWR-1	11/9/2009		27.50			46.13	Stantec
GWR-1		73.65					
	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



		Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Apparent Product Thickness	Groundwater Elevation	Gauged By
Well ID ¹	Date Gauged						
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	
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 44.96	Envent Envent
	4/21/2009 7/21/2009	74.93 74.93	29.97 28.77			46.16	Envent
MW-O-1	8/14/2007	75.48	25.31	23.78	1.53	40.10	Geomatrix
WWW-O-1	8/21/2007	75.48	23.84	23.58	0.26		Geomatrix
	8/28/2007	75.48	23.07	23.06	0.20		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
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
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
MM/ 05 0	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



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-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
	3/15/2010	79.38	31.95	31.91	0.04		Blaine Tech
MW-SF-4	2/23/2009	79.38	30.96			48.42	Blaine Tech
	4/20/2009	79.38	30.02	29.94	0.08	48.60	Blaine Tech Envent
	4/28/2009	79.38	30.78				
MW-SF-4	7/17/2009	79.38	31.85			47.53	Envent
	7/22/2009	79.38	31.65	31.61	0.04		Blaine Tech
101/05 5	10/19/2009	79.38	31.93	31.90	0.03		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 Stantec
	11/12/2007 12/21/2007	79.74 79.74	29.93			49.81 48.74	Geomatrix
		79.74	31.00			49.54	Stantec
	4/14/2008 8/11/2008	79.74	30.20 30.85			49.54	Stantec
	10/13/2008	79.74	30.93			48.81	Stantec
	4/20/2009	79.74	30.99			48.75	Blaine Tech
MW-SF-6	11/12/2009	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
	10/19/2009	74.10	26.45			47.65	Blaine Tech



Well ID ¹	Date Gauged	Top of Well Casing Elevation	Measured Depth to Groundwater	Measured Depth to Product	Thickness	Groundwater Elevation	Gauged By
		(ft msl)	(ft bTOC)	(ft bTOC)	(feet)	(ft msl)	-
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
11111-35-12							
	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
MW-SF-12	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				Geomatrix
		73.40				50.30 45.29	Geomatrix
	10/5/2007		28.11				
	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
	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



TABLE 7 GROUNDWATER AND PRODUCT MEASUREMENTS AND ELEVATIONS

Well ID ¹	Date Gauged	Top of Well Casing Elevation (ft msl)	Measured Depth to Groundwater (ft bTOC)	Measured Depth to Product (ft bTOC)	Apparent Product Thickness (feet)	Groundwater Elevation (ft msl)	Gauged By
MW-SF-14	8/14/2007	78.16	27.68	(11.0100)		50.48	Geomatrix
WW-31-14	8/21/2007	78.16	27.60			50.56	Geomatrix
		78.16	27.53			50.63	Stantec
	8/28/2007	78.16	27.55			50.63	Geomatrix
	9/11/2007	78.16	27.00			50.50 50.41	
	10/5/2007						Geomatrix
	11/2/2007	78.16	29.83			48.33	Geomatrix Envent
	8/15/2008	78.16	29.77	29.24	0.53		Envent
	10/17/2008	78.16	29.52	29.50	0.02		
	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
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

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

Notes:

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

Abbreviations:

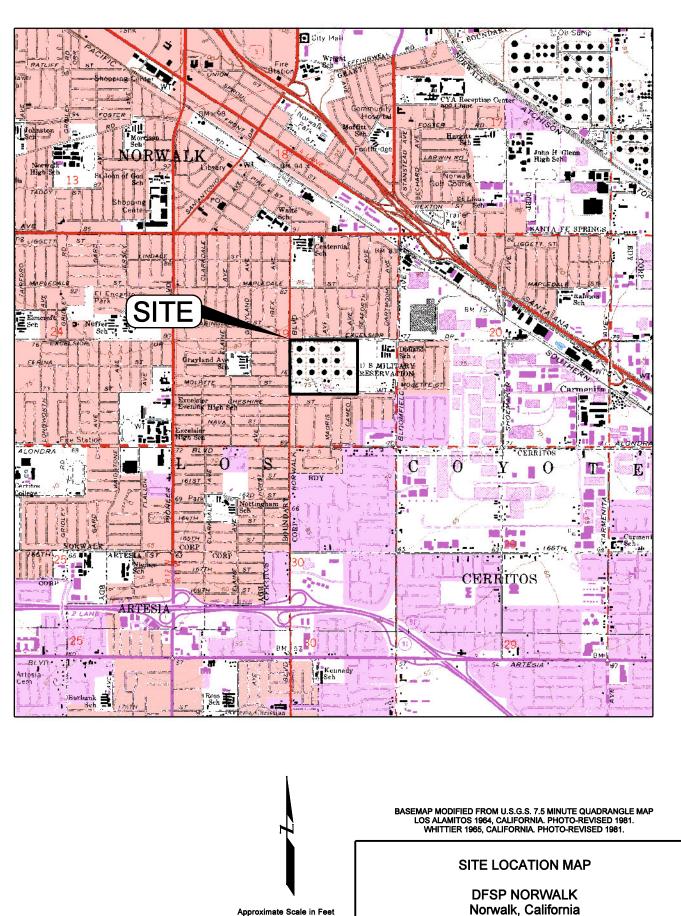
ft msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929.

ft bTOC = feet below top of casing.

--- = not detected or not applicable.



FIGURES



Approximate Scale in Feet 0 1200 2400 0 0 0 Approximate Scale in Meters

By: kle

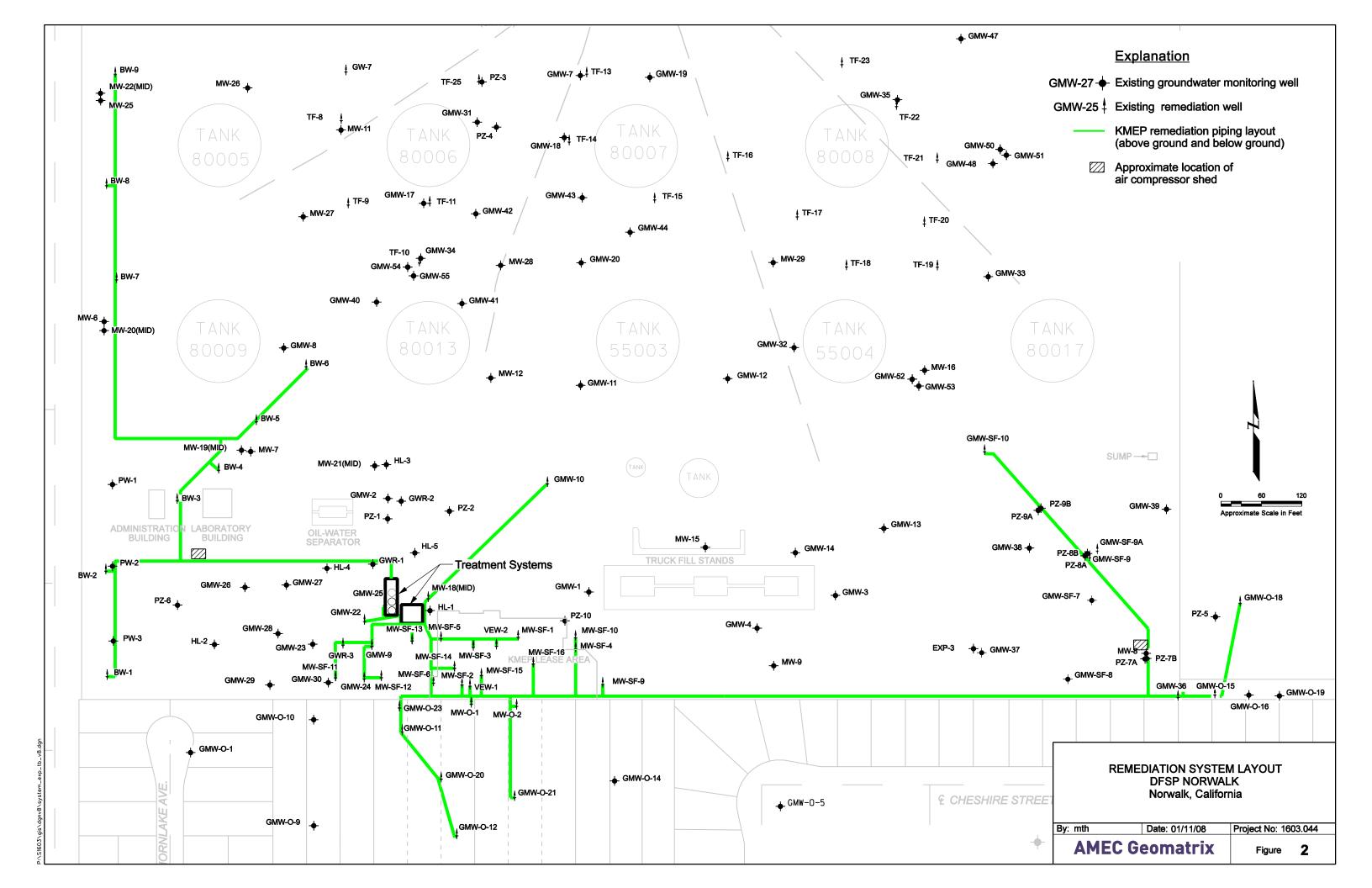
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Project No: 1603.044

AMEC Geomatrix

Date: 07/19/07

Figure 1



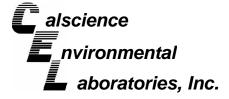


APPENDIX A

LABORATORY ANALYTICAL RESULTS



GROUNDWATER





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Supplemental Report 1

April 05, 2010

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

Subject: Calscience Work Order No.: 1 Client Reference: S

10-02-1363 SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/16/2010 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.

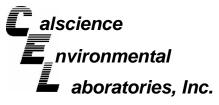
Sincerely,

mile 2 for

Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

 CA-ELAP ID: 1230
 NELAP ID: 03220CA
 CSDLAC ID: 10109
 SCAQMD ID: 93LA0830

 7440 Lincoln Way, Garden Grove, CA 92841-1427
 TEL:(714) 895-5494
 FAX: (714) 894-7501

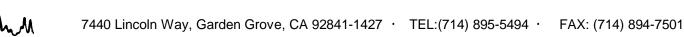


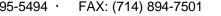
AMEC Geomatrix, Inc.	Date Received:	02/16/10
510 Superior Avenue	Work Order No:	10-02-1363
Suite 200	Preparation:	EPA 3510C
Newport Beach, CA 92663-3627	Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

Client Sample Number		Lab Sampl Number	Lab Sample Number		Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-02-16		10-02-13	10-02-1363-1-G		Aqueous	GC 47	02/19/10	02/20/10 04:07	100219B02
Comment(s): -Results were eval	luated to the MDL,	concentrations >	= to the I	MDL but < RI	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	DF	<u>Qual</u>	<u>Units</u>		
TPH as Fuel Product	5900	500	430	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>			
Decachlorobiphenyl	113	68-140							
Method Blank		099-12-3	84-23	N/A	Aqueous	GC 47	02/19/10	02/20/10 03:21	100219B02
Comment(s): -Results were eval	luated to the MDL,	concentrations >	= to the I	MDL but < RI	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Fuel Product	ND	500	430	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>			
Decachlorobiphenyl	108	68-140							

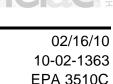
RL - Reporting Limit , DF - Dilution Factor Qual - Qualifiers ,







IN ACCORD



Page 1 of 1

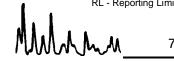
alscience aboratories, Inc.

Date Received:	02/16/10
Work Order No:	10-02-1363
Preparation:	EPA 5030B
Method:	EPA 8015B (M)
	Work Order No: Preparation:

Project: SFPP - Norwalk Site

Client Sample Number		Lab Samp Number	Lab Sample D Number (Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-02-16		10-02-13	63-1-E	02/16/10 13:15	Aqueous	GC 4	02/18/10	02/19/10 03:53	100218B01
Comment(s): -Results were evaluation	ated to the MDL,	concentrations >	= to the N	1DL but < RL	., if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>I</u>	DF	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	8000	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>			
1,4-Bromofluorobenzene	93	38-134							
Method Blank		099-12-2	47-3,960	N/A	Aqueous	GC 4	02/18/10	02/18/10 15:47	100218B01
Comment(s): -Results were evaluation	ated to the MDL,	concentrations >	= to the N	1DL but < RL	., if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	<u>DF</u>	Qual	<u>Units</u>		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>			
1,4-Bromofluorobenzene	70	38-134							

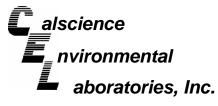
RL - Reporting Limit , DF - Dilution Factor Qual - Qualifiers ,



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IN ACCORD

Page 1 of 1



Sonelac H

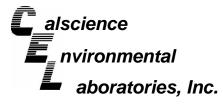
AMEC Geomatrix, Inc.						Date R	eceived:				02	2/16/1	0
510 Superior Avenue						Work C	Order No:				10-0	2-136	3
Suite 200						Prepara						5030	
Newport Beach, CA 92	662 2627					Method						8260	
Newpoir Beach, CA 92	003-3027						I.				EFA		
						Units:					_	ug/	
Project: SFPP - Norwa	ilk Site										Page	e 1 of∶	2
Client Sample Number				Sample Imber		Date/Time Collected	Matrix	Instrument	Date Prepar		e/Time alyzed	QC Bat	ch ID
INF-02-16			10-0	2-1363-′	1-B	02/16/10 13:15	Aqueous	GC/MS Z	02/18/1		18/10 8:27	100218	L01
											0.27		
Comment(s): -Results were							., if found, are	e qualified wi					- ·
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	Qual
Acetone	ND	2500	1000	50		1,1-Dichlor	• •		ND	50	13	50	
Benzene	4700	25	14	50			oropropene		ND	25	14	50	
Bromobenzene	ND	50	17	50		t-1,3-Dichlo	· ·		ND	25	18	50	
Bromochloromethane	ND	50	35	50		Ethylbenze			110	50	11	50	
Bromodichloromethane	ND	50	17	50		2-Hexanon			ND	500	340	50	
Bromoform	ND	50	28	50		Isopropylbe			12	50	11	50	J
Bromomethane	ND	500	210	50		p-Isopropyl			ND	50	13	50	
2-Butanone	1100	500	350	50		Methylene			ND	500	130	50	
n-Butylbenzene	ND	50	14	50		4-Methyl-2-			ND	500	220	50	
sec-Butylbenzene	ND	50	10	50		Naphthaler			ND	500	130	50	
tert-Butylbenzene	ND	50	14	50		n-Propylbe	nzene		ND	50	40	50	
Carbon Disulfide	ND	500	96	50		Styrene			ND	50	15	50	
Carbon Tetrachloride	ND	25	21	50			rachloroethar		ND	50	18	50	
Chlorobenzene	ND	50	11	50			rachloroethar	ne	ND	50	22	50	
Chloroethane	ND	250	64	50		Tetrachloro	ethene		ND	50	26	50	
Chloroform	ND	50	17	50		Toluene			1300	50	16	50	
Chloromethane	ND	500	24	50			lorobenzene		ND	50	15	50	
2-Chlorotoluene	ND	50	28	50			lorobenzene		ND	50	24	50	
4-Chlorotoluene	ND	50	11	50		1,1,1-Trich			ND	50	22	50	
Dibromochloromethane	ND	50	24	50			loro-1,2,2-Tri	fluoroethane		500	32	50	
1,2-Dibromo-3-Chloropropane	ND	250	160	50 50		1,1,2-Trich			ND	50	27	50 50	
1,2-Dibromoethane	ND	50	23			Trichloroet			ND	50	15		
Dibromomethane	ND	50	29	50 50			oromethane		ND	500	16	50 50	
1,2-Dichlorobenzene	ND	50	14	50 50			loropropane		ND	250	67	50 50	
1,3-Dichlorobenzene	ND	50 50	14	50			ethylbenzene		120	50	12 12	50	
1,4-Dichlorobenzene	ND	50 50	11 25	50			ethylbenzene		44 ND	50 500	350	50 50	J
Dichlorodifluoromethane 1,1-Dichloroethane	ND ND	50 50	25 19	50		Vinyl Aceta Vinyl Chlor			ND ND	500 25	350 16	50	
1,2-Dichloroethane	ND ND	50 25	19 16	50		p/m-Xylene			560	25 50	23	50	
1,2-Dichloroethane		25 50	20	50 50		p/m-Xylene				50 50	23 12	50 50	
c-1,2-Dichloroethene	ND	50 50	20 24	50			ityl Ether (MT	DE)	240 1800		12 15	50	
t-1,2-Dichloroethene	ND ND	50 50	24 20	50			, ·	,	ND	50 100	15 15	50	
1,2-Dichloropropane	ND	50 50	20 19	50			Ether (DIPE) I Ether (ETB)		ND	100	13	50	
1,3-Dichloropropane	ND	50 50	19 19	50			Methyl Ether		ND	100	13	50	
2,2-Dichloropropane	ND	50 50	19 23	50		Ethanol			ND	5000	2500	50	
Surrogates:	<u>REC (%)</u>	<u>Control</u>		ual		Surrogates	<u>.</u>		<u>REC (%)</u>	Control		ual	
Dibromoflyonomethers	100	<u>Limits</u> 80-132					oothon11		107	80-141			
Dibromofluoromethane	108					1,2-Dichlor			137				
Toluene-d8	104	80-120				1,4-Bromof	luorobenzene	9	111	76-120			

RL - Reporting Limit ,

MM

DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Date Received:



Page 5 of 14

02/16/10

AMEC Geomatrix, Inc. 510 Superior Avenu Suite 200 Newport Beach, CA

						Duich	cooncu.				02	., 10, 1	0		
510 Superior Avenue						Work C	Order No:				10-02-1363				
Suite 200						Prepar	ation [.]					5030I			
	662 2627					-									
Newport Beach, CA 92	003-3027					Method	J.				EPA	8260			
						Units:						ug/	L		
Project: SFPP - Norwa	lk Site										Page	e 2 of 2	2		
			Lab S	Sample		Date/Time			Date	e Dat	e/Time				
Client Sample Number			Number		Collected	Matrix	Instrument	Prepar	ed Analyzed		QC Bat	ch ID			
Method Blank			099-10-006-32,272			N/A	Aqueous	GC/MS Z	02/18/		/18/10 2:06	100218	L01		
Comment(s): -Results were	evaluated to th	ne MDL. c	oncentrat	tions >=	to the N	/IDL but < RI	if found, are	e qualified wi	th a "J" flac	1.					
Parameter	Result	<u>RL</u>	MDL	<u>DF</u>	Qual	Parameter		o quainou m	Result	,. <u>RL</u>	MDL	DF	Qual		
Acetone	ND	50	20	1		1,1-Dichlor	ropropene		ND	1.0	0.26	1			
Benzene	ND	0.50	0.28	1			loropropene		ND	0.50	0.28	1			
Bromobenzene	ND	1.0	0.33	1		-	oropropene		ND	0.50	0.36	1			
Bromochloromethane	ND	1.0	0.69	1		Ethylbenze			ND	1.0	0.22	1			
Bromodichloromethane	ND	1.0	0.33	1		2-Hexanon			ND	10	6.9	1			
Bromoform	ND	1.0	0.55	1		Isopropylbe			ND	1.0	0.23	1			
Bromomethane	ND	10	4.3	1		p-Isopropy			ND	1.0	0.26	1			
2-Butanone	ND	10	4.0 6.9	1		Methylene			ND	10	2.6	1			
n-Butylbenzene	ND	1.0	0.28	1		-	-Pentanone		ND	10	2.0 4.4	1			
sec-Butylbenzene	ND	1.0	0.20	1		Naphthaler			ND	10	2.5	1			
	ND	1.0	0.20	1		•			ND	1.0	2.5 0.79	1			
tert-Butylbenzene Carbon Disulfide		10	0.28 1.9	1		n-Propylbe	lizene		ND	1.0	0.79	1			
Carbon Tetrachloride	ND	0.50	0.43	1		Styrene	trachloroethar		ND		0.30	1			
Chlorobenzene	ND ND	1.0	0.43	1			trachloroethar		ND	1.0 1.0	0.33	1			
Chloroethane	ND	5.0	1.3	1		Tetrachlor		ie	ND	1.0	0.44	1			
Chloroform	ND	1.0	0.33	1		Toluene	Jelliene		ND	1.0	0.33	1			
Chloromethane	ND	10	0.33	1			lorobenzene		ND	1.0	0.33	1			
2-Chlorotoluene	ND	1.0	0.49	1			lorobenzene		ND	1.0	0.31	1			
4-Chlorotoluene	ND	1.0	0.33	1					ND	1.0	0.49	1			
		1.0	0.21	1			lloroethane	fluoroothono		10	0.45	1			
Dibromochloromethane	ND		0.46 3.1	1			lloro-1,2,2-Tri	nuoroemane				1			
1,2-Dibromo-3-Chloropropane	ND	5.0		1		1,1,2-Trich			ND	1.0	0.54	1			
1,2-Dibromoethane	ND	1.0 1.0	0.47 0.59	1		Trichloroet	loromethane		ND	1.0 10	0.30 0.31	1			
Dibromomethane	ND			1					ND			1			
1,2-Dichlorobenzene	ND	1.0	0.27	1			loropropane		ND	5.0	1.3	1			
1,3-Dichlorobenzene	ND	1.0	0.28				ethylbenzene		ND	1.0	0.24	1			
1,4-Dichlorobenzene	ND	1.0	0.21	1 1			ethylbenzene		ND	1.0	0.23	1			
Dichlorodifluoromethane	ND	1.0	0.49			Vinyl Aceta			ND	10	7.1	1			
1,1-Dichloroethane	ND	1.0	0.37	1		Vinyl Chlor			ND	0.50	0.33	1			
1,2-Dichloroethane	ND	0.50	0.31	1		p/m-Xylene	e		ND	1.0	0.45				
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			utyl Ether (MT	,	ND	1.0	0.30	1			
t-1,2-Dichloroethene	ND	1.0	0.40	1			Ether (DIPE		ND	2.0	0.31	1			
1,2-Dichloropropane	ND	1.0	0.38	1			yl Ether (ETB	,	ND	2.0	0.27	1			
1,3-Dichloropropane	ND	1.0	0.38	1		,	Methyl Ether	(TAME)	ND	2.0	0.28	1			
2,2-Dichloropropane	ND	1.0	0.46	1		Ethanol			ND	100	50	Т			
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qu</u>	<u>ial</u>		Surrogates	<u>:</u>		<u>REC (%)</u>	Control	<u>l Q</u>	ual			
Dibromofluoromethane	106	80-132				1 2-Dichlor	roethane-d4		122	80-141					
Toluene-d8	104	80-120				,	fluorobenzene	<u>ـ</u>	105	76-120					
	104	00-120				1,4-010110		5	105	10-120					

MM

RL - Reporting Limit , DF - Dilution Factor ,

Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501





AMEC Geomatrix, Inc.	Date Received:	02/16/10
510 Superior Avenue	Work Order No:	10-02-1363
Suite 200	Preparation:	EPA 5030B
Newport Beach, CA 92663-3627	Method:	EPA 8015B (M)

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		MS/MSD Batch Number
10-02-1512-1	Aqueous	GC 4	02/18/10		02/18/10	100218S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	99	94	68-122	5	0-18	

RPD - Relative Percent Difference, CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 · FAX: (714) 894-7501





 Date Received:
 02/16/10

 Work Order No:
 10-02-1363

 Preparation:
 EPA 5030B

 Method:
 EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepare	d	Date Analyzed	MS/MSD Batch Number
10-02-1305-2	Aqueous	GC/MS Z	02/18/10)	02/18/10	100218S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Acetone	49	43	10-150	14	0-20	
Benzene	100	101	72-120	1	0-20	
Bromobenzene	101	101	10-150	1	0-20	
Bromochloromethane	105	109	10-150	4	0-20	
Bromodichloromethane	124	125	10-150	1	0-20	
Bromoform	120	124	10-150	3	0-20	
Bromomethane	124	151	10-150	20	0-20	3
2-Butanone	63	60	10-150	5	0-20	
n-Butylbenzene	103	107	10-150	4	0-20	
sec-Butylbenzene	101	103	10-150	2	0-20	
tert-Butylbenzene	102	107	10-150	5	0-20	
Carbon Disulfide	88	89	10-150	1	0-20	
Carbon Tetrachloride	125	131	63-135	5	0-20	
Chlorobenzene	97	100	80-120	3	0-20	
Chloroethane	139	120	10-150	15	0-20	
Chloroform	114	112	10-150	2	0-20	
Chloromethane	109	109	10-150	0	0-20	
2-Chlorotoluene	109	110	10-150	1	0-20	
4-Chlorotoluene	106	107	10-150	2	0-20	
Dibromochloromethane	123	125	10-150	2	0-20	
1,2-Dibromo-3-Chloropropane	129	128	10-150	1	0-20	
1,2-Dibromoethane	107	109	80-120	2	0-20	
Dibromomethane	119	117	10-150	1	0-20	
1,2-Dichlorobenzene	99	100	80-120	1	0-20	
1,3-Dichlorobenzene	94	95	10-150	1	0-20	
1,4-Dichlorobenzene	92	94	10-150	3	0-20	
Dichlorodifluoromethane	158	159	10-150	1	0-20	3
1,1-Dichloroethane	108	106	10-150	1	0-20	
1,2-Dichloroethane	133	134	10-150	1	0-20	
1,1-Dichloroethene	108	110	60-132	2	0-25	
c-1,2-Dichloroethene	95	97	10-150	1	0-20	
t-1,2-Dichloroethene	98	97	10-150	1	0-20	
1,2-Dichloropropane	101	104	10-150	3	0-20	

RPD - Relative Percent Difference, CL - Control Limit

h.M





 Date Received:
 02/16/10

 Work Order No:
 10-02-1363

 Preparation:
 EPA 5030B

 Method:
 EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-02-1305-2	Aqueous	GC/MS Z	02/18/10		02/18/10	100218S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
1,3-Dichloropropane	111	112	10-150	0	0-20	
2,2-Dichloropropane	128	126	10-150	1	0-20	
1,1-Dichloropropene	107	110	10-150	3	0-20	
c-1,3-Dichloropropene	118	118	10-150	0	0-20	
-1,3-Dichloropropene	127	130	10-150	2	0-20	
Ethylbenzene	106	108	78-120	2	0-20	
2-Hexanone	79	78	10-150	1	0-20	
sopropylbenzene	108	110	10-150	2	0-20	
o-Isopropyltoluene	99	102	10-150	4	0-20	
Methylene Chloride	97	97	10-150	0	0-20	
4-Methyl-2-Pentanone	108	105	10-150	3	0-20	
Naphthalene	90	97	10-150	7	0-20	
n-Propylbenzene	106	108	10-150	3	0-20	
Styrene	97	97	10-150	0	0-20	
1,1,1,2-Tetrachloroethane	116	120	10-150	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	98	100	10-150	2	0-20	
1,1,2,2-Tetrachloroethane	102	103	10-150	1	0-20	
Tetrachloroethene	98	99	10-150	0	0-20	
Foluene	99	101	74-122	2	0-20	
1,2,3-Trichlorobenzene	94	100	10-150	6	0-20	
1,2,4-Trichlorobenzene	97	103	10-150	6	0-20	
I,1,1-Trichloroethane	122	124	10-150	2	0-20	
1,1,2-Trichloroethane	107	107	10-150	0	0-20	
Trichloroethene	108	110	69-120	1	0-20	
Trichlorofluoromethane	143	141	10-150	1	0-20	
1,2,3-Trichloropropane	131	131	10-150	0	0-20	
1,2,4-Trimethylbenzene	99	103	10-150	3	0-20	
1,3,5-Trimethylbenzene	108	112	10-150	3	0-20	
/inyl Acetate	94	95	10-150	2	0-20	
/inyl Chloride	120	123	58-130	2	0-20	
p/m-Xylene	111	110	10-150	0	0-20	
p-Xylene	114	116	10-150	2	0-20	

RPD - Relative Percent Difference, CL - Control Limit

h.M





Date Received:	N/A
Work Order No:	10-02-1363
Preparation:	EPA 3510C
Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	ch
099-12-384-23	Aqueous	GC 47	02/19/10	02/20/10	100219B02	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RPI	<u> </u>	Qualifiers
TPH as Fuel Product	93	90	7	75-117 2	0-13	

RPD - Relative Percent Difference, CL - Control Limit

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Date Received:	N/A
Work Order No:	10-02-1363
Preparation:	EPA 5030B
Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	h
099-12-247-3,960	Aqueous	GC 4	02/18/10	02/18/10	100218B01	
Parameter	<u>LCS %</u>	REC LCSD	<u>%REC %R</u>	REC CL RPD	RPD CL	Qualifiers
TPH as Gasoline	109	101	7	78-120 7	0-10	

RPD - Relative Percent Difference, CL - Control Limit

MM

N/A

10-02-1363

EPA 5030B

EPA 8260B





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method:

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal	ate yzed	LCS/LCSD Numbe	
099-10-006-32,272	Aqueous	GC/MS Z	02/18/10	02/18/	/10	100218L	01
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	99	98	80-122	73-129	1	0-20	
Carbon Tetrachloride	122	127	68-140	56-152	4	0-20	
Chlorobenzene	94	98	80-120	73-127	4	0-20	
1,2-Dibromoethane	104	104	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	94	97	80-120	73-127	3	0-20	
1,1-Dichloroethene	105	109	72-132	62-142	3	0-25	
Ethylbenzene	105	107	80-126	72-134	2	0-20	
Toluene	98	98	80-121	73-128	1	0-20	
Trichloroethene	108	108	80-123	73-130	0	0-20	
Vinyl Chloride	124	121	67-133	56-144	3	0-20	
Methyl-t-Butyl Ether (MTBE)	112	115	75-123	67-131	2	0-20	
Tert-Butyl Alcohol (TBA)	88	99	75-123	67-131	12	0-20	
Diisopropyl Ether (DIPE)	102	104	71-131	61-141	2	0-20	
Ethyl-t-Butyl Ether (ETBE)	113	113	76-124	68-132	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	115	114	80-123	73-130	1	0-20	
Ethanol	76	83	61-139	48-152	9	0-27	

 Total number of LCS compounds :
 16

 Total number of ME compounds :
 0

 Total number of ME compounds allowed :
 10

 LCS ME CL validation result :
 Pass

n M

RPD - Relative Percent Difference, CL - Control Limit

1



hM

Glossary of Terms and Qualifiers



Work Order Number: 10-02-1363

Qualifier *	Definition 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.
В	Analyte was present in the associated method blank.
Е	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.
Х	% 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.

algelence nvironmental	7440 LINCOLN WAY GARDEN GROVE, CA 92841-1432	341-1432										0 -			F CUSTOD	CHAIN OF CUSTODY RECORD DATE: ひょしょうし
∎aboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	(; (714) 894-	7501									u	PAGE:		1 0F	~
LABORATORY CLIENT: Kinder Morgan Energy F	UBORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh	efibaugh			р ——	CLIENT PROJECT NAME / NUMBER	JECT NA	ME / NUM	BER:						P.O. NO.:	
ADDRESS: 1100 Town & Country Road	oad					SFPP - Norwalk Site PROJECT CONTACT:	- NOT	valk	lite						QUOTE NO.:	
omy: Orange. CA 92868					- 18 	James Dye SAMPLER(S): (SIGNATURE)		TURE								
714-560-4802	FAX: 714-560-4601	1	E-MAIL iames dye@h	E-MAIL iames dye@kindermorgan.com			No.	j	Ŋ			、			07	1363
			5 DAYS	10 DAYS							D0	STE	DA	REQUESTED ANALYSIS	SIS	
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY RWQCB REPORTING ARCHIVI		S UNTIL	-	-			┣		(809Z			 				
structions t to A. Padilla at Bill KMEP/SFPF igs required/Use	5 % ¥	f. AFE# 8 ction limi	1195 t - all me	thods.	T		((W9108	,2-DCA;MEK(8		(7.09L) S	(0209'6		· · · · · · · · · · · · · · · · · · ·		
		SAMPLING	LING	ŇÖ	NO. OF CONT.				r;ADC							
SAMPLE ID	LOCATION	DATE	TIME	MAT- RIX	(M2108) <u>6</u> - H9T	(M&108) qî-H9T	VOCs, Full List (Oil & Grease (41	трн- ₉ (с5-с14 с	Fr,r;X3T8;38M	sbilo2 aldsatta2	Total Suspended	, 991)uO,(IV)nO,0H			Comments	
INF- 02-16	Influent	01-91-20	1315	Ŵ	× ×	×	×					_		Ĕ	Temperature* =	72
EFF. 03-16	Effluent	91.91-80	1315	Ŵ	11		×	X	×	×	××	×		Ĕ	Temperature* =	72
															(Temp. as	as sampled*)
											-	ļ				
												_		ž	Monthly	
							-		-	\vdash	-	ļ				
									\square	-		<u> </u>				
	A										-	<u> </u>				
Relinquished by Signature)				Received by: (Signature)	y: (Signal		NNCN	12	ĬŬ	6	5		1	ă	Date: Jub/10	Time: 4.19
Relinquished by: (Signature)				Received by: (Signature)	y: (Signat	(eun)								ă	Date:	Time:
Relinquished by: (Signature)				Received by: (Signature)	y: (Signat	ture)									Date:	Time:
Revised: 07/23/09														-		

A. GETTER PROPERTY.

CONTRACTOR STATES STATES

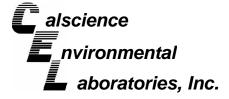
		Pag	e 14 of 14
Calscience WORK ORDER #:	10-02	2-13	6 5
Aboratories, Inc. SAMPLE RECEIPT FOR	RM c	Cooler	of
CLIENT: KMEP	DATE:	<u>02/</u> 6	/ 10
TEMPERATURE: Thermometer ID: SC1 (Criteria: $0.0^{\circ}C - 6.0^{\circ}C$, not frozen Temperature Image: Colspan="2">Image: Colspan="2">Colspan="2">Image: Colspan="2">Image: Colspan="2" Colspan=	Blank ay of sampl urier.	-	le : <i>þ.C</i>
CUSTODY SEALS INTACT: Cooler Image: Not Not Intact) Sample Image: Not Not Intact) Not Not Intact) Image: Not Present	□ N/A	Initia Initia	1: <u>b.C</u> 1: <u>WSC</u>
SAMPLE CONDITION:	res	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	Ø		
COC document(s) received complete	, Ż		
\square Collection date/time, matrix, and/or # of containers logged in based on sample labels.	, ,		
\Box No analysis requested. \Box Not relinquished. \Box No date/time relinquished.			
Sampler's name indicated on COC	Ø		
Sample container label(s) consistent with COC	ź		
Sample container(s) intact and good condition			
Proper containers and sufficient volume for analyses requested	/		
Analyses received within holding time	<u>ل</u> ع		
Proper preservation noted on COC or sample container	́р		
□ Unpreserved vials received for Volatiles analysis	,		
Volatile analysis container(s) free of headspace	Ø		
Tedlar bag(s) free of condensation			Ø
CONTAINER TYPE:			
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores®	[®] ⊡Terra	Cores [®] 🛛	
Water: □VOA			1AGBs
□500AGB Ø500AGJ Ø500AGJs □250AGB □250CGB □250CGBs		□500PB □5	00PBna
□250PB □ 250PBn □ 125PB □ 125PBznna □ 100PJ □ 100PJna ₂ □			
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#:		— Checked by:	MJA
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Er Preservative: h: HCL n: HNO3 na ₂ :Na ₂ S ₂ O ₃ Na: NaOH p: H ₃ PO ₄ s: H ₂ SO ₄ znna: ZnAc ₂ +NaOH f: F	nvelope F	eviewed by:	(RW)

SOP	T100	090	(07/1	6/09)

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Page 1 of 14

Supplemental Report 2

April 05, 2010

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

Subject: Calscience Work Order No.: Client Reference:

10-03-0664 SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/9/2010 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.

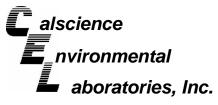
Sincerely,

mile 2 for

Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

 CA-ELAP ID: 1230
 NELAP ID: 03220CA
 CSDLAC ID: 10109
 SCAQMD ID: 93LA0830

 7440 Lincoln Way, Garden Grove, CA 92841-1427
 TEL:(714) 895-5494
 FAX: (714) 894-7501



Date Received:	03/09/10
Work Order No:	10-03-0664
Preparation:	EPA 3510C
Method:	EPA 8015B (M)
	Work Order No: Preparation:

Project: SFPP - Norwalk Site

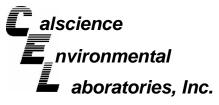
Client Sample Number		Lab Samp Number	е	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
INF-03-09		10-03-06	64-1-G	03/09/10 11:20	Aqueous	GC 27	03/11/10	03/12/10 03:11	100311B06	
Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
Parameter	<u>Result</u>	<u>RL</u>	MDL		DF	<u>Qual</u>	<u>Units</u>			
TPH as Fuel Product	5900	500	430	1			ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>				
Decachlorobiphenyl	98	68-140								
Method Blank		099-12-3	84-24	N/A	Aqueous	GC 27	03/11/10	03/12/10 02:17	100311B06	
Comment(s): -Results were eva	aluated to the MDL,	concentrations >	= to the I	MDL but < RI	_, if found, ar	e qualified with	n a "J" flag.			
Parameter	<u>Result</u>	<u>RL</u>	<u>MDL</u>		DF	<u>Qual</u>	<u>Units</u>			
TPH as Fuel Product	ND	500	430	1			ug/L			
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>				
Decachlorobiphenyl	109	68-140								

h.M



7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Page 1 of 1



AMEC Geomatrix, Inc.	Date Received:	03/09/10
510 Superior Avenue	Work Order No:	10-03-0664
Suite 200	Preparation:	EPA 5030B
Newport Beach, CA 92663-3627	Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

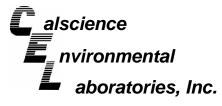
Client Sample Number		Lab Sampl Number	le	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
INF-03-09		10-03-06	64-1-E	03/09/10 11:20	Aqueous	GC 57	03/11/10	03/11/10 10:32	100311B01
Comment(s): -Results were evalu	ated to the MDL,	concentrations >	= to the N	1DL but < RL	, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>I</u>	DF	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	7000	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits				<u>Qual</u>			
1,4-Bromofluorobenzene	138	38-134			2	2			
Method Blank		099-12-24	47-4,011	N/A	Aqueous	GC 57	03/11/10	03/11/10 04:07	100311B01
Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Comment(s): -Results were evalu	ated to the MDL,	concentrations >	= to the N	1DL but < RL	, if found, ar	e qualified with	n a "J" flag.		
Comment(s): -Results were evalu Parameter	ated to the MDL, <u>Result</u>	concentrations > <u>RL</u>	= to the N <u>MDL</u>		., if found, an <u>DF</u>	e qualified with Qual	n a "J" flag. <u>Units</u>		
()						•	0		
Parameter	<u>Result</u>	<u>RL</u>	<u>MDL</u>			•	<u>Units</u>		



Page 3 of 14

IN ACCORD

Page 1 of 1





03/09/10

10-03-0664

EPA 5030B

EPA 8260B

ug/L

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

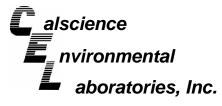
	Z
Date Received:	
Work Order No:	
Preparation:	
Method:	
Units:	

Project: SFPP - Norwa	lk Site										Page	e 1 of :	2
Client Sample Number			Lab Sar Numb	•		Date/Time Collected	Matrix	Instrument	Date Prepa		te/Time alyzed	QC Bat	tch ID
INF-03-09			10-03-0	664-1-A		03/09/10 11:20	Aqueous	GC/MS LL	03/10/		6/11/10 08:36	100310)L02
Comment(s): -Results were	evaluated to th	e MDL, c	oncentratio	ns >= to	the N	MDL but < RL	., if found, are	e qualified wit	th a "J" flaç	J.			
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	<u>)</u> ual	Parameter			Result	<u>RL</u>	MDL	DF	<u>Qual</u>
Acetone	ND	2500	1000	50		1,1-Dichlor	opropene		ND	50	13	50	
Benzene	6600	25	14	50		c-1,3-Dichl	oropropene		ND	25	14	50	
Bromobenzene	ND	50	17	50		t-1,3-Dichlo	propropene		ND	25	18	50	
Bromochloromethane	ND	50	35	50		Ethylbenze	ne		110	50	11	50	
Bromodichloromethane	ND	50	17	50		2-Hexanon	е		ND	500	340	50	
Bromoform	ND	50	28	50		Isopropylbe	enzene		20	50	11	50	J
Bromomethane	ND	500	210	50		p-Isopropyl			ND	50	13	50	
2-Butanone	ND	500	350	50		Methylene			ND	500	130	50	
n-Butylbenzene	ND	50	14	50		4-Methyl-2-	Pentanone		ND	500	220	50	
sec-Butylbenzene	ND	50	10	50		Naphthaler			140	500	130	50	J
tert-Butylbenzene	ND	50	14	50		n-Propylbe			45	50	40	50	J
Carbon Disulfide	ND	500	96	50		Styrene			ND	50	15	50	-
Carbon Tetrachloride	ND	25	21	50			rachloroethar	ne	ND	50	18	50	
Chlorobenzene	ND	50	11	50			rachloroethar		ND	50	22	50	
Chloroethane	ND	250	64	50		Tetrachloro			ND	50	26	50	
Chloroform	ND	50	17	50		Toluene			460	50	16	50	
Chloromethane	ND	500	24	50			lorobenzene		ND	50	15	50	
2-Chlorotoluene	ND	50	28	50			lorobenzene		ND	50	24	50	
4-Chlorotoluene	ND	50	11	50		1,1,1-Trich			ND	50	22	50	
Dibromochloromethane	ND	50	24	50		, ,	loro-1,2,2-Tri	fluoroethane		500	32	50	
1,2-Dibromo-3-Chloropropane	ND	250	160	50		1,1,2-Trich		indereedinarie	ND	50	27	50	
1,2-Dibromoethane	ND	50	23	50		Trichloroet			ND	50	15	50	
Dibromomethane	ND	50	29	50			oromethane		ND	500	16	50	
1,2-Dichlorobenzene	ND	50	14	50			loropropane		ND	250	67	50	
1,3-Dichlorobenzene	ND	50	14	50			ethylbenzene		120	50	12	50	
1.4-Dichlorobenzene	ND	50	11	50			ethylbenzene		38	50	12	50	J
Dichlorodifluoromethane	ND	50	25	50		Vinyl Aceta			ND	500	350	50	Ū
1,1-Dichloroethane	ND	50	19	50		Vinyl Chlor			ND	25	16	50	
1.2-Dichloroethane	ND	25	16	50		p/m-Xylene			440	50	23	50	
1,1-Dichloroethene	ND	50	20	50		o-Xylene	•		110	50	12	50	
c-1,2-Dichloroethene	ND	50	24	50		-	utyl Ether (MT	BF)	410	50	15	50	
t-1,2-Dichloroethene	ND	50	20	50		,	Ether (DIPE	,	56	100	15	50	J
1,2-Dichloropropane	ND	50	19	50			VI Ether (ETB		ND	100	13	50	Ū
1,3-Dichloropropane	ND	50	19	50			Methyl Ether	,	ND	100	14	50	
2,2-Dichloropropane	ND	50 50	23	50		Ethanol			ND	5000	2500	50	
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qual</u>			Surrogates	<u>:</u>		<u>REC (%)</u>	<u>Control</u>	<u>ı q</u>	ual	
Dibromofluoromethane	97	80-132				1,2-Dichlor	oethane-d4		101	80-141			
Toluene-d8	96	80-120				1,4-Bromof	iluorobenzene	e	90	76-120			



MM

RL - Reporting Limit , DF - Dilution Factor , Page 4 of 14



Date Received:

Work Order No:



Page 5 of 14

03/09/10

10-03-0664

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

Suite 200 Preparation: Newport Beach, CA 92663-3627 Method:												5030I 8260I	
						Units:						ug/	L
Project: SFPP - Norwa	lk Site										Page	e 2 of 2	2
Lient Sample Number		Lab Sa Numb	•		Date/Time Collected	Matrix	Instrument	Date Prepar		Date/Time d Analyzed		ch ID	
Method Blank			099-14-	-001-64	4	N/A	Aqueous	GC/MS LL	03/10/1	0 03/11/10 02:14		100310	L02
Comment(s): -Results were	evaluated to th	e MDL, co	oncentratio	ons >=	to the N	1DL but < RL	., if found, are	e qualified wit	th a "J" flag	J.			
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	MDL	DF	<u>Qual</u>
Acetone	ND	50	20	1		1,1-Dichlor	opropene		ND	1.0	0.26	1	
Benzene	ND	0.50	0.28	1		c-1,3-Dichl	oropropene		ND	0.50	0.28	1	
Bromobenzene	ND	1.0	0.33	1		t-1,3-Dichlo	propropene		ND	0.50	0.36	1	
Bromochloromethane	ND	1.0	0.69	1		Ethylbenze	ne		ND	1.0	0.22	1	
Bromodichloromethane	ND	1.0	0.33	1		2-Hexanon	е		ND	10	6.9	1	
Bromoform	ND	1.0	0.55	1		Isopropylbe	enzene		ND	1.0	0.23	1	
Bromomethane	ND	10	4.3	1		p-Isopropyl	toluene		ND	1.0	0.26	1	
-Butanone	ND	10	6.9	1		Methylene	Chloride		ND	10	2.6	1	
-Butylbenzene	ND	1.0	0.28	1		4-Methyl-2-	Pentanone		ND	10	4.4	1	
ec-Butylbenzene	ND	1.0	0.20	1		Naphthalen	ne		ND	10	2.5	1	
ert-Butylbenzene	ND	1.0	0.28	1		n-Propylbe			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			rachloroethar	e	ND	1.0	0.35	1	
Chlorobenzene	ND	1.0	0.22	1			rachloroethar		ND	1.0	0.44	1	
Chloroethane	ND	5.0	1.3	1		Tetrachloro			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			lorobenzene		ND	1.0	0.31	1	
-Chlorotoluene	ND	1.0	0.55	1			lorobenzene		ND	1.0	0.49	1	
-Chlorotoluene	ND	1.0	0.21	1		1,1,1-Trich			ND	1.0	0.45	1	
Dibromochloromethane	ND	1.0	0.48	1			loro-1,2,2-Tri	luoroethane		10	0.64	1	
,2-Dibromo-3-Chloropropane	ND	5.0	3.1	1		1,1,2-Trich		laciocaliano	ND	1.0	0.54	1	
,2-Dibromoethane	ND	1.0	0.47	1		Trichloroeth			ND	1.0	0.30	1	
Dibromomethane	ND	1.0	0.59	1			oromethane		ND	10	0.31	1	
,2-Dichlorobenzene	ND	1.0	0.27	1			loropropane		ND	5.0	1.3	1	
,3-Dichlorobenzene	ND	1.0	0.28	1			ethylbenzene		ND	1.0	0.24	1	
,4-Dichlorobenzene	ND	1.0	0.21	1			ethylbenzene		ND	1.0	0.23	1	
Dichlorodifluoromethane	ND	1.0	0.49	1		Vinyl Aceta	•		ND	10	7.1	1	
,1-Dichloroethane	ND	1.0	0.37	1		Vinyl Chlori			ND	0.50	0.33	1	
,2-Dichloroethane	ND	0.50	0.31	1		p/m-Xylene			ND	1.0	0.45	1	
,1-Dichloroethene	ND	1.0	0.40	1		o-Xylene	•		ND	1.0	0.24	1	
-1,2-Dichloroethene	ND	1.0	0.49	1			utyl Ether (MT	BE)	ND	1.0	0.30	1	
1,2-Dichloroethene	ND	1.0	0.40	1		•	Ether (DIPE)	,	ND	2.0	0.31	1	
,2-Dichloropropane	ND	1.0	0.38	1			l Ether (ETB		ND	2.0	0.27	1	
,3-Dichloropropane	ND	1.0	0.38	1			Methyl Ether (,	ND	2.0	0.27	1	
,3-Dichloropropane	ND	1.0	0.38	1		Ethanol			ND	100	0.20 50	1	
.,2 Diditiolopiopalle		1.0	0.70	•									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>l</u>		Surrogates:	<u>:</u>		<u>REC (%)</u>	Control I	<u>C</u>	<u>tual</u>	
Dibromofluoromethane	95	80-132				1,2-Dichlor	oethane-d4		98	80-141			
oluene-d8	97	80-120				1,4-Bromof	luorobenzene	;	90	76-120			

Client Sample Number Method Blank

Parameter Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane

1,2-Dibromoethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene c-1,2-Dichloroethene t-1,2-Dichloroethene 1,2-Dichloropropane 1,3-Dichloropropane 2,2-Dichloropropane

MA

Dibromofluoromethane

Surrogates:

Toluene-d8

RL - Reporting Limit , DF - Dilution Factor ,

Qual - Qualifiers





AMEC Geomatrix, Inc.	Date Received:	03/09/10
510 Superior Avenue	Work Order No:	10-03-0664
Suite 200	Preparation:	EPA 5030B
Newport Beach, CA 92663-3627	Method:	EPA 8015B (M)

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-03-0680-3	Aqueous	GC 57	03/11/10		03/11/10	100311S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	99	99	68-122	0	0-18	

RPD - Relative Percent Difference, CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 · I

5-5494 · FAX: (714) 894-7501





03/09/10
10-03-0664
EPA 5030B
EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-03-0680-3	Aqueou	is GC/MS LL	03/10/10		03/11/10	100310S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Benzene	104	99	72-120	5	0-20	
Carbon Tetrachloride	98	95	63-135	2	0-20	
Chlorobenzene	108	103	80-120	5	0-20	
1,2-Dibromoethane	102	99	80-120	3	0-20	
1,2-Dichlorobenzene	109	102	80-120	6	0-20	
1,1-Dichloroethene	107	102	60-132	5	0-24	
Ethylbenzene	107	102	78-120	5	0-20	
Toluene	108	103	74-122	4	0-20	
Trichloroethene	100	95	69-120	5	0-20	
Vinyl Chloride	93	94	58-130	1	0-20	
Methyl-t-Butyl Ether (MTBE)	103	98	72-126	5	0-21	
Tert-Butyl Alcohol (TBA)	109	109	72-126	0	0-20	
Diisopropyl Ether (DIPE)	102	96	71-137	5	0-23	
Ethyl-t-Butyl Ether (ETBE)	100	96	74-128	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	97	94	76-124	4	0-20	
Ethanol	107	112	35-167	5	0-48	

RPD - Relative Percent Difference, CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 · FAX:

4 • FAX: (714) 894-7501



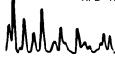


Date Received:	N/A
Work Order No:	10-03-0664
Preparation:	EPA 3510C
Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
099-12-384-24	Aqueous	GC 27	03/11/10	03/12/10	100311B06	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RPI	<u> RPD CL</u>	Qualifiers
TPH as Fuel Product	109	107	7	75-117 1	0-13	

RPD - Relative Percent Difference, CL - Control Limit







Date Received:	N/A
Work Order No:	10-03-0664
Preparation:	EPA 5030B
Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	ch
099-12-247-4,011	Aqueous	GC 57	03/11/10	03/11/10	100311B01	
Parameter	LCS %	REC LCSD	%REC %F	REC CL RF	D RPD CL	Qualifiers
TPH as Gasoline	<u></u> 99	<u>101</u>	<u> </u>	78-120 2	0-10	<u></u>

RPD - Relative Percent Difference, CL - Control Limit

MM





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

Date Received:	
Work Order No:	
Preparation:	
Method:	

N/A 10-03-0664 EPA 5030B EPA 8260B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal	ate yzed	LCS/LCSD Numbe	
099-14-001-64	Aqueous	GC/MS LL	03/10/10	03/11/	/10	100310L	02
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	104	102	80-122	73-129	3	0-20	
Carbon Tetrachloride	99	99	68-140	56-152	0	0-20	
Chlorobenzene	107	104	80-120	73-127	2	0-20	
1,2-Dibromoethane	102	101	80-121	73-128	0	0-20	
1,2-Dichlorobenzene	108	109	80-120	73-127	1	0-20	
1,1-Dichloroethene	106	105	72-132	62-142	1	0-25	
Ethylbenzene	106	104	80-126	72-134	2	0-20	
Toluene	108	106	80-121	73-128	2	0-20	
Trichloroethene	100	98	80-123	73-130	2	0-20	
Vinyl Chloride	101	99	67-133	56-144	1	0-20	
Methyl-t-Butyl Ether (MTBE)	102	102	75-123	67-131	1	0-20	
Tert-Butyl Alcohol (TBA)	104	106	75-123	67-131	1	0-20	
Diisopropyl Ether (DIPE)	102	102	71-131	61-141	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	99	100	76-124	68-132	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	99	96	80-123	73-130	2	0-20	
Ethanol	103	102	61-139	48-152	1	0-27	

Total number of LCS compounds :16Total number of ME compounds :0Total number of ME compounds allowed :LCS ME CL validation result :Pass

nM

RPD - Relative Percent Difference, CL - Control Limit

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hmm



Work Order Number: 10-03-0664

Qualifier *	<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.
В	Analyte was present in the associated method blank.
Е	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.
Х	% 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.

7440 LINCOLN WAY GARDEN GROVE, CA 92841-1432

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RECORD	
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CHAIN OF	DATE: $\delta 3$

aboratories, inc.	ЧАКИЕМ ЧКОVЕ, СА 92841-1432 TEL: (714) 895-5494 . FAX: (714) 894-7501	547-7432 (: (714) 894-'	7501										PAGE:		03.08.10 1 0F	-
LABORATORY CLIENT:						CLIENT	CLIENT PROJECT NAME / NUMBER	NAME /	UMBER						P.O. NO.:	
ADDRESS: ADDRESS:	ners, Attn: Steve	Defibaugh			Τ	SFP	SFPP - Norwalk Site	Imal	< Site							
1100 Town & Country Road	ad				1	PROJEC	PROJECT CONTACT	E							QUOTE NO.:	
Orange, CA 92868					<u> </u>		James Dye SAMPLER(S): (SIGNATORE)	B NAFORE	$\langle \rangle$			Y	\mathbf{A}			
TEL: 714-560-4802	FAX: 714-560-4601		E-MAIL james dye@kindermorgan.com	indermorgan	Eloo	۷			N	2					03	06694
						\backslash					<u>ا</u> ق	REQUESTED	ED	NAL	ANALYSIS	
SEV			DAYS	TO DAYS	s S	Y		ł	ľ						2	
	SAMPL	ES UNTIL	_	_				·	80928				,			
Report to A. Padilla at Geomatrix, cc: KMEP	Seomatrix, cc: KMEP	, AEC# 0,	1405				••••		· · · · · · · · · · · · · · · · · · ·		(2					
"J" flags required/Use lowest possible detection limit - all methods.	- occer possible deter	ction limit	t - alf me	thods.			(8)				.03r) sbi					
		SAMPLING	LING		NO. OF		0928				los					
							··· ···		····		pəp					
SAMPLE ID LAB USE ONLY	LOCATION	DATE	TIME	MAT- RIX		108) g - H9 2008) dì-H9	OCs, Full L	essere & li(7-2-2) 6-НЧ КВЕ;ВТЕХ;	ettleable Sc	neqeuê listo	henolics (4)	g,Cr(V),Cu elenium on			
1 INF. D3 . O &	Influent	0/-8-80	0211	8	~	-			_	_	ī				Comr Temperature* =	Comments re* = 70-1
1 EFF. 63 - 08	Effluent	03-26-10	100	Ŵ	12	-		×	××	×	×	××	×		Temperature* =	1.02
															(Temp. as	(Temp. as sampled*)
				-												
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	¢															
	X															
	J' gl			Received by: (Signature)	by: (Sig		111	5	J	15	5			1	Date: 2]9/10	Time: Ti
Relinquished by: (Signature)				Received by: (Signature)	by: (Sig	nature)		Þ							Date:	Time:
Relinquished by: (Signature)				Received by: (Signature)	by: (Sig	ature)									Date:	Time:
Revised: 07/23/09			1											1		

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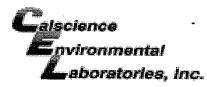
Page	13	of	14	•
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Calscience -	WO	RK ORDER #:	10-0	3-0	66
Laboratories, Inc.	SAMPLE REC	EIPT FOR	RM	Cooler _	<u>/</u> of _
CLIENT: <u>KMEP</u>			DATE:	03/	9/10
TEMPERATURE: Thermom Temperature 2 1 □ Sample(s) outside temperature □ Sample(s) outside temperature □ Sample(s) outside temperature □ Received at ambient temperature	°C + 0.5 °C (CF) = ature criteria (PM/APM contac ature criteria but received on i	2.6°C sted by:). ce/chilled on same c	Blank	□ Sam	ple
Ambient Temperature: 🛛 A				Initi	ial:
CUSTODY SEALS INTAC Cooler Sample		☑ Not Present ☑ Not Present			ial:/ ial:/
SAMPLE CONDITION:	······································		Yes	No	N/A
Chain-Of-Custody (COC) doc			,		
COC document(s) received co					
Collection date/time, matrix, a					
□ No analysis requested. □ Sampler's name indicated on	·	time relinquished.	-		_
Sample container label(s) con			-		
Sample container(s) intact and					
Proper containers and sufficie					
Analyses received within hold					
Proper preservation noted on	-		,		
□ Unpreserved vials received	for Volatiles analysis				
Volatile analysis container(s)	free of headspace		. 🗹		
Tedlar bag(s) free of condens	ation		. 🗆		Ø
CONTAINER TYPE:					
Solid: □4ozCGJ	J □16ozCGJ □Sleeve() □EnCore	s [®] ⊡Terra	Cores [®] 🗆]
Water: □VOA ⊠VÕAh □VO					
□500AGB Ø500ÅGJ Ø500			<i>a</i> .		
Ø250PB Ø250PBn □125PE]
Air: □Tedlar [®] □Summa [®] Container: C: Clear A: Amber P: Plast Preservative: h: HCL n: HNO3 na ₂ :Na	tic G: Glass J : Jar B : Bottle Z: Zip	loc/Resealable Bag E:	Envelope	Checked b Reviewed b Scanned b	y: <u>W</u>

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SOP T100_090 (07/16/09)

The all of the



WORK ORDER #: 10-03- 2 6 6 4

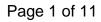
SAMPLE ANOMALY FORM

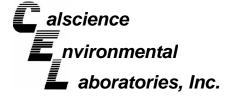
SAMPL	ES - CC	ONTAIN	ERS & L	ABELS:			Comm	ents:				
☐ Sam ☐ Hold ☐ Insut ☐ Impr ☐ No p ☐ Sam ☑ Sam ☑ C ☐	ple(s)/C ling time fficient o oper co reserva ple labe ple labe Sample Date ar Project	ontaine e expired quantitie ntainer(tive noto ls illegil l(s) do r lD nd/or Tir Informa	r(s) recei d – list sat es for ana s)/preser ed on CO ole – note not match me Collec ation	RECEIVED I ved but NOT mple ID(s) an alysis – list to vative used C or label – test/containe COC – Note	T LISTED nd test est – list tes list test a er type	D on COC t & notify lab	(-2) (Labeled Collectic Label Labeled ollections 03/0	<u>on do</u> is o as e n da	ahe 3/091 EFF.	per /10 -03 -	
		ntainer(s)							. = 0		
	Analysi											
 Air s	Leaking Broken Withou sample Flat Very lo	g t Label(containe w in vol	s) er(s) com ume	mised – Note	Note in c	comments						
				d - duplicate	-	•	· · · ·					
				o Calscienc		• /						
⊡ ⊡ Othe		g (transi	errea int	o Client's Te	ediar° Ba	ag^)						
HEADSI	PACE -	Contai	iners wit	h Bubble >	6mm o	or ¼ inch:						
Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received		Analys	is	
Comment	ts:	=										
*Transferr	ed at Clie	ent's requ	est.	18 · · · · · · · · · · · · · · · · · · ·		······································	Ir	nitial / Dat	e:	D.C	03/9	/10
										SOP T10	0_090 (0	1/29/10)

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VAPOR







March 05, 2010

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

Subject: Calscience Work Order No.: Client Reference:

10-02-2230 SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/26/2010 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,

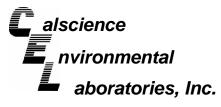
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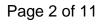
Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

CA-ELAP ID: 1230 · NELAP ID: 0322 7440 Lincoln Way, Garden G

230 • NELAP ID: 03220CA • CSDLAC ID: 10109 • 7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 •

SCAQMD ID: 93LA0830 FAX: (714) 894-7501

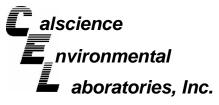




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AMEC Geom	natrix, Inc.					Date Re	ceived:				02	2/26/10)
510 Superior	r Avenue					Work O	rder No:				10-0	2-2230	C
Suite 200						Prepara	tion:					N/A	4
Newport Bea	ach, CA 92663-3627	,				Method:					ASTM I	D-1946	6
						Units:						%	v
Project: SFF	PP - Norwalk Site										Page	e 1 of [·]	1
Client Sample Nur	mber		Lab Sa Num			Date/Time Collected	Matrix	Instrument	Date Prepa		Date/Time Analyzed	QC Bat	ch ID
INF-02-26			10-02-2230-1-A		I-A	02/26/10 11:45	Air	GC 36	N/A		02/26/10 1002 00:00		L01
Comment(s):	-Results were evaluated to t	he MDL, d	concentrati	ons >=	to the I	MDL but < RL,	if found, ar	e qualified wi	th a "J" flag	j .			
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	MDL	DF	Qual
Methane	ND	0.500	0.0981	1		Oxygen + Ar	gon		21.2	0.50	0 0.370	1	
Carbon Dioxide	0.445	0.500	0.344	1	J								
Method Blank			099-03	8-002-1	,007	N/A	Air	GC 36	N/A		02/26/10 00:00	100226	L01
Comment(s):	-Results were evaluated to t	he MDL, o	concentrati	ons >=	to the I	MDL but < RL,	if found, ar	e qualified wi	th a "J" flao	j.			
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	<u>MDL</u>	DF	Qual
Methane Carbon Dioxide	ND ND	0.500 0.500	0.0981 0.344	1 1		Oxygen + Aı	gon		ND	0.50	0 0.370	1	

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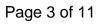
AMEC Geomatrix, Inc.		Date Received:	02/26/10
510 Superior Avenue		Work Order No:	10-02-2230
Suite 200		Preparation:	N/A
Newport Beach, CA 92663-3627		Method:	EPA TO-3M
Project: SFPP - Norwalk Site			Page 1 of 1
Client Sample Number	Lab Sample	Date/Time Collected Matrix Instrument	Date Date/Time t Prepared Analyzed QC Batch ID

Matrix Prepared **Client Sample Number** Number Collected Instrument Analyzed 02/26/10 11:45 02/26/10 INF-02-26 10-02-2230-1-A GC 13 N/A 100226L01 Air 18:11 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 <u>Units</u> TPH as Gasoline 1.5 1 20 0.17 ppm (v/v) 02/26/10 Method Blank 098-01-005-2,136 N/A Air GC 13 N/A 100226L01 09:11 Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag. Parameter Result <u>RL</u> MDL DF Qual Units TPH as Gasoline ND 1.5 0.17 1 ppm (v/v)

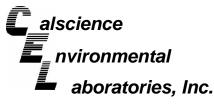
RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

n M

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FA



IN ACCORD



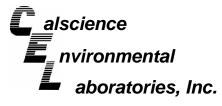
A DE DE LA ACCORDANCE

INF-02-26	10-02-2230-1-A	02/26/10 11:45	Air	GC/MS II	N/A	02/26/10 22:46	100226L01
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Project: SFPP - Norwalk Site						Page	e 1 of 2
Newport Beach, CA 92003-3027		Units:	•				o-15M pb (v/v)
Suite 200 Newport Beach, CA 92663-3627		Prepara Method					N/A O-15M
510 Superior Avenue			rder No	:		10-0	2-2230
AMEC Geomatrix, Inc.		Date Re	eceived:			02	2/26/10

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.

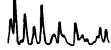
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	Qual	Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual
Acetone	ND	250	120	5		t-1,2-Dichloroethene	ND	2.5	0.93	5	
Benzene	300	2.5	0.47	5		t-1,3-Dichloropropene	ND	5.0	0.51	5	
Benzyl Chloride	ND	7.5	2.0	5		Ethylbenzene	18	2.5	0.57	5	
Bromodichloromethane	ND	2.5	0.51	5		4-Ethyltoluene	11	2.5	0.91	5	
Bromoform	ND	10	0.76	5		Hexachloro-1,3-Butadiene	ND	7.5	0.90	5	
Bromomethane	ND	2.5	0.46	5		2-Hexanone	ND	7.5	2.6	5	
2-Butanone	14	7.5	0.50	5		Methyl-t-Butyl Ether (MTBE)	21	10	0.59	5	
Carbon Disulfide	ND	50	25	5		Methylene Chloride	2.0	25	0.94	5	B,J
Carbon Tetrachloride	ND	2.5	0.49	5		4-Methyl-2-Pentanone	ND	7.5	0.76	5	
Chlorobenzene	ND	2.5	0.54	5		o-Xylene	120	2.5	0.60	5	
Chloroethane	ND	2.5	0.77	5		p/m-Xylene	140	10	3.8	5	
Chloroform	ND	2.5	0.45	5		Styrene	ND	7.5	0.89	5	
Chloromethane	ND	2.5	0.49	5		Tetrachloroethene	ND	2.5	0.55	5	
Dibromochloromethane	ND	2.5	0.56	5		Toluene	220	25	10	5	
Dichlorodifluoromethane	ND	2.5	0.72	5		Trichloroethene	1.2	2.5	0.53	5	J
1,1-Dichloroethane	ND	2.5	0.51	5		Trichlorofluoromethane	ND	5.0	0.39	5	
1,1-Dichloroethene	ND	2.5	0.55	5		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.5	0.50	5	
1,2-Dibromoethane	ND	2.5	0.56	5		1,1,1-Trichloroethane	ND	2.5	0.50	5	
Dichlorotetrafluoroethane	ND	10	0.55	5		1,1,2-Trichloroethane	ND	2.5	0.61	5	
1,2-Dichlorobenzene	ND	2.5	0.55	5		1,3,5-Trimethylbenzene	30	2.5	0.84	5	
1,2-Dichloroethane	ND	2.5	0.47	5		1,1,2,2-Tetrachloroethane	ND	5.0	0.53	5	
1,2-Dichloropropane	ND	2.5	0.57	5		1,2,4-Trimethylbenzene	17	7.5	1.6	5	
1,3-Dichlorobenzene	ND	2.5	0.65	5		1,2,4-Trichlorobenzene	ND	10	3.6	5	
1,4-Dichlorobenzene	ND	2.5	0.67	5		Vinyl Acetate	ND	10	2.3	5	
c-1,3-Dichloropropene	ND	2.5	0.70	5		Vinyl Chloride	ND	2.5	0.50	5	
c-1,2-Dichloroethene	ND	2.5	0.66	5							
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qu</u>	<u>ial</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control I</u>	<u>Qua</u>	<u>al</u>	
1,4-Bromofluorobenzene Toluene-d8	97 101	57-129 78-156				1,2-Dichloroethane-d4	99	47-137			





Page 5 of 11

AMEC Geomatrix, Inc.						Date Re	eceived:				02	2/26/1	0
510 Superior Avenue						Work O	rder No:				10-0	2-223	0
Suite 200						Prepara						N//	
Newport Beach, CA 9266	3-3627					Method				F	рΔт	O-15N	
Newpolt Beach, CA 9200	JJ-JUZ7					Units:	•			L			
	O 14					Units.						ob (v/v	
Project: SFPP - Norwalk	Site										Page	e 2 of 2	2
Client Sample Number			Lab Sa Num	•		Date/Time Collected	Matrix	Instrument	Date Prepar		e/Time alyzed	QC Bat	ch ID
Method Blank			099-12	-981-3	378	N/A	Air	GC/MS II	N/A		26/10 4:25	100226	L01
Comment(s): -Results were ev	aluated to th	ne MDL, c	oncentratio	ons >=	to the	MDL but < RL,	if found, ar	e qualified wi	th a "J" flag	J.			
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	Qual	Parameter			Result	<u>RL</u>	MDL	DF	Qual
Acetone	ND	50	25	1		t-1,2-Dichlo	roethene		ND	0.50	0.19	1	
Benzene	ND	0.50	0.094	1		t-1,3-Dichlo	ropropene		ND	1.0	0.10	1	
Benzyl Chloride	ND	1.5	0.39	1		Ethylbenzer	ie		ND	0.50	0.11	1	
Bromodichloromethane	ND	0.50	0.10	1		4-Ethyltolue	ne		ND	0.50	0.18	1	
Bromoform	ND	2.0	0.15	1		Hexachloro-	1,3-Butadie	ne	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-But	tyl Ether (M	BE)	ND	2.0	0.12	1	
Carbon Disulfide	ND	10	5.0	1		Methylene C	Chloride		0.26	5.0	0.19	1	J
Carbon Tetrachloride	ND	0.50	0.098	1		4-Methyl-2-F	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		Tetrachloroe	ethene		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		Trichloroeth	ene		ND	0.50	0.11	1	
1,1-Dichloroethane	ND	0.50	0.10	1		Trichlorofluc			ND	1.0	0.077	1	
1,1-Dichloroethene	ND	0.50	0.11	1		, ,	, ,	fluoroethane		1.5	0.10	1	
1,2-Dibromoethane	ND	0.50	0.11	1		1,1,1-Trichle			ND	0.50	0.10	1	
Dichlorotetrafluoroethane	ND	2.0	0.11	1		1,1,2-Trichle			ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.11	1		1,3,5-Trime			ND	0.50	0.17	1	
1,2-Dichloroethane	ND	0.50	0.095	1		1,1,2,2-Tetr		ne	ND	1.0	0.11	1	
1,2-Dichloropropane	ND	0.50	0.11	1		1,2,4-Trime			ND	1.5	0.33	1	
1,3-Dichlorobenzene	ND	0.50	0.13	1		1,2,4-Trichle			ND	2.0	0.72	1	
1,4-Dichlorobenzene	ND	0.50	0.13	1		Vinyl Acetat			ND	2.0	0.45	1 1	
c-1,3-Dichloropropene	ND	0.50	0.14	1 1		Vinyl Chlorid	e		ND	0.50	0.10	T	
c-1,2-Dichloroethene	ND	0.50	0.13	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qua</u>	<u>I</u>		Surrogates:			<u>REC (%)</u>	Control I	<u>Q</u>	<u>ual</u>	
1,4-Bromofluorobenzene	90	57-129				1,2-Dichloro	ethane-d4		96	47-137			
Toluene-d8	89	78-156											







Page 6 of 11

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

Date Received:	
Work Order No:	
Preparation:	
Method:	

02/26/10 10-02-2230 N/A EPA TO-3M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
10-02-2144-1	Air	GC 13	N/A	02/26/10	100226D01
Parameter	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
TPH as Gasoline	18	18	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit





N/A
10-02-2230
N/A
ASTM D-1946

Project: SFPP - Norwalk Site

Quality Control Sample ID 099-03-002-1,007	Matrix Air	Instrument GC 36	Date Prepared N/A	Da Analy 02/26	/zed	LCS/LCSD Batc Number 100226L01	h
099-03-002-1,007	All	GC 36	N/A	02/20	/10	100226201	
Parameter		LCS (Conc LC	SD Conc	<u>RPD</u>	RPD CL	Qualifiers
Carbon Dioxide		5.2	78	5.288	0	0-30	
Oxygen + Argon		19.0	63	19.67	0	0-30	
Nitrogen		74.0	01	74.18	0	0-30	

RPD - Relative Percent Difference, CL - Control Limit

Mulhan





Date Received: Work Order No: Preparation: Method: N/A 10-02-2230 N/A EPA TO-15M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Analy		LCS/LCSD I Numbe	
099-12-981-378	Air	GC/MS II	N/A	02/26/	'10	100226L	01
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	107	105	60-156	44-172	1	0-40	
Carbon Tetrachloride	106	106	64-154	49-169	0	0-32	
1,2-Dibromoethane	116	116	54-144	39-159	1	0-36	
1,2-Dichlorobenzene	113	107	34-160	13-181	5	0-47	
1,2-Dichloroethane	101	101	69-153	55-167	0	0-30	
1,2-Dichloropropane	103	102	67-157	52-172	1	0-35	
1,4-Dichlorobenzene	113	110	36-156	16-176	3	0-47	
c-1,3-Dichloropropene	118	118	61-157	45-173	0	0-35	
Ethylbenzene	110	109	52-154	35-171	1	0-38	
o-Xylene	113	111	52-148	36-164	2	0-38	
p/m-Xylene	92	90	42-156	23-175	2	0-41	
Tetrachloroethene	106	106	56-152	40-168	0	0-40	
Toluene	110	108	56-146	41-161	1	0-43	
Trichloroethene	105	104	63-159	47-175	1	0-34	
1,1,2-Trichloroethane	111	110	65-149	51-163	1	0-37	
Vinyl Chloride	101	102	45-177	23-199	1	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

n M

RPD - Relative Percent Difference, CL - Control Limit



MM



Work Order Number: 10-02-2230

	IIIDEI. 10-02-2230
Qualifier *	<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, 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.
А	Result is the average of all dilutions, as defined by the method.
В	Analyte was present in the associated method blank.
С	Analyte presence was not confirmed on primary column.
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.
Ν	Nontarget Analyte.
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.
U	Undetected at the laboratory method detection limit.
Х	% 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.

Calscience	7440 LINCOLN WAY										ЧĊ	AIN			
Environmental	GARDEN GROVE, CA 9284	841-1432									E FAG	ц Ш		DATE: AD'DO'O'O'	
📥 aboratories, inc.	TEL: (714) 895-5494 . FAX:	(: (714) 894-7501	7501								PAGE:	ر ښ	- 1	.	
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Kinder Morgan Energy Partners, Attn: Steve Definbough	Partners, Attn: Steve D	Definbouc	h		0 		MECT NA	CLIENT PROJECT NAME / NUMBER	ž				P.O. NO.:		_
1100 Town & Country Road	load					SLPP ROJECT O	- NON	SFPP - Norwalk Site PROJECT CONTACT:					QUOTE NO		
CITY: Drance CA 02060					<u> </u> '	James Dye	s Dye		\mathbb{N}						_
TEL: TEL:	FAX:		E-MAIL			WPLER(S	Signa		2						Steam.
714-560-4802	714-560-4601	_	james dve@kindermorgan.com	Indermorgan.c	E	Y	Ň						612	2121210	Bereferen
SAME DAY 24 HR	2 1 48HR 72 HR		5 DAYS			\mathbb{Z}			R	EQUE	REQUESTED ANALYSIS	ANAL	YSIS		
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RWQCB REPORTING	ARCHIVE SAMPLES	S UNTIL	,	_ ا											
Report to A. Padilla at	PECIAL INSTRUCTIONS Report to A. Padilla at Geomatrix. cc: KMEP						(†								
Direct Bill KMEP/SFP	Direct Bill KMEP/SFPP - Steve Defibaugh-ref. ",]" flare rounised/i lee formeet monsible defined.	f. AFE# 81195	1195 1 - 1				S, CH			·· · ·					
			t - an me	mods.			00 'uc								
		SAMF	SAMPLING	N O	NO. OF CONT.		/Argo								
SAMPLE ID	LOCATION			MAT-	·	(6-)	ZO) 91		-17 - 2						
USE USE NV Y	DESCRIPTION	DATE	TIME	XIX	91-0.	I9T) E-O	761-MT2/			<u>.</u>					
115-02-26	Influent Vapor to SVE	01-20-00	1145	<u>A</u> ir		-	, ×		T	+		_	Cor Monthly sample	Comments	-
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Relinquished by: (Signature)				Received by: (Signature)	y: (Signa	(Iure)							Date:	Time:	
Revised: 07/23/09			1												ومغنعية

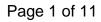
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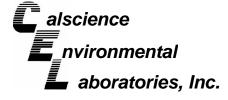
Calscience · WORK ORDER #: 10-02	2- 2230									
Environmental Laboratories, Inc. SAMPLE RECEIPT FORM	Cooler $\underline{\mathcal{O}}$ of $\underline{\mathcal{O}}$									
CLIENT: KMEP DATE:	02/26/10									
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)										
Temperature°C + 0.5 °C (CF) =°C \Box 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 samp	ling.									
Received at ambient temperature, placed on ice for transport by Courier.	h /									
Ambient Temperature: Air D Filter D Metals Only D PCBs Only	Ambient Temperature: Air \square Filter \square Metals Only \square PCBs Only Initial: $\frac{p L}{d}$									
CUSTODY SEALS INTACT:										
□ Cooler □ □ No (Not Intact) □ Not Present ☑ N/A	Initial:									
□ Sample □ □ No (Not Intact) ☑ Not Present	Initial:									
SAMPLE CONDITION: Yes	No N/A									
Chain-Of-Custody (COC) document(s) received with samples										
COC document(s) received complete										
□ 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										
Sample container label(s) consistent with COC										
Sample container(s) intact and good condition										
Proper containers and sufficient volume for analyses requested										
Analyses received within holding time										
Proper preservation noted on COC or sample container										
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace□										
Tedlar bag(s) free of condensation										
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores [®] □Terra	aCores [®]									
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB										
\Box 500AGB \Box 500AGJ \Box 500AGJs \Box 250AGB \Box 250CGB \Box 250CGBs \Box 1PB										
□250PB □250PBn □125PB □125PBznna □100PJ □100PJna ₂ □ □										
□ 1250PB □ 125PB □ 125PB □ 100P3 □ 100P3	Checked by: 12L									
	Reviewed by: <u>1</u>									
Preservative: h: HCL n: HNO3 na2:Na2S2O3 Na: NaOH p: H3PO4 s: H2SO4 znna: ZnAc2+NaOH f: Field-filtered										

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SOP T100_090 (07/16/09)

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April 02, 2010

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

Subject: Calscience Work Order No.: Client Reference:

10-03-2099 SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 3/26/2010 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.

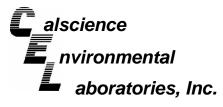
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

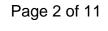
Sincerely,

onch

Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



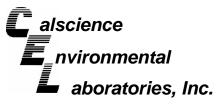


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AMEC Geom	natrix, Inc. Date Received: 03/26/10)					
510 Superior	r Avenue					Work O	rder No	:			10-0	3-209	9
Suite 200		Preparation: N/A								4			
Newport Bea	ach, CA 92663-3627	•	Method: ASTM D-1946							6			
						Units:						%	v
Project: SFF	PP - Norwalk Site	P - Norwalk Site Page 1 of 1							1				
Client Sample Nu	mber		Lab Sample Number		Date/Time Collected	Matrix	Instrument	Date Prepa		Date/Time Analyzed	OC Datab II		
INF-03-26			10-03-2099-1-A		-A	03/26/10 13:30	Air	GC 36	N/A		03/26/10 00:00	100326L01	
Comment(s):	-Results were evaluated to t	he MDL, d	concentrati	ons >=	to the N	/IDL but < RL,	if found, a	re qualified wi	th a "J" flao	g.			
Parameter er	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	MDL	DF	Qual
Methane	ND	0.500	0.0981	1		Oxygen + Ar	gon		20.2	0.50	0 0.370	1	
Carbon Dioxide	1.03	0.500	0.344	1									
Method Blank			099-03	8-002-1	,021	N/A	Air	GC 36	N/A		03/26/10 00:00	100326	L01
Comment(s):	-Results were evaluated to t	he MDL, d	concentrati	ons >=	to the N	/IDL but < RL,	if found, a	re qualified wi	th a "J" flag	g.			
Parameter	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF	<u>Qual</u>	Parameter			Result	RL	MDL	<u>DF</u>	Qual
Methane Carbon Dioxide	ND ND	0.500 0.500	0.0981 0.344	1 1		Oxygen + Ar	gon		ND	0.50	0 0.370	1	

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

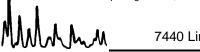
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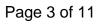


AMEC Geomatrix, Inc.		Date Received:		03/26/10
510 Superior Avenue		Work Order No:		10-03-2099
Suite 200		Preparation:		N/A
Newport Beach, CA 92663-3627		Method:		EPA TO-3M
Project: SFPP - Norwalk Site				Page 1 of 1
	Lab Sample	Date/Time	Date	Date/Time

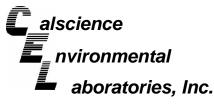
Client Sample Number		Numb	•	Collected	Matrix	Instrument	Prepared	Analyzed	QC Batch ID
INF-03-26		10-03-	2099-1-A	03/26/10 13:30	Air	GC 13	N/A	03/26/10 13:43	100326L01
Comment(s): -Results were ev	aluated to the MDL	., concentrations	s >= to the MI	DL but < RL	, if found, a	are qualified with	n a "J" flag.		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	MDL	<u>D</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	18	1.5	0.17	1			ppm (v/v)		
Method Blank		098-01	-005-2,172	N/A	Air	GC 13	N/A	03/26/10 07:39	100326L01
Comment(s): -Results were ev	aluated to the MDL	., concentrations	s >= to the MI	DL but < RL	, if found, a	are qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>D</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	1.5	0.17	1			ppm (v/v)		

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





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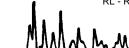
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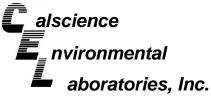
INF-03-26	10-03-2099-1-A	03/26/10 13:30	Air	GC/MS AA	N/A	03/27/10 00:57	100326L01		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
Project: SFPP - Norwalk Site						•	e 1 of 2		
Newport Beach, CA 92663-3627		Method Units:	EPA TO-15M ppb (v/v)						
Suite 200		Prepara					N/A		
510 Superior Avenue	Work Order No:					10-03-2099			
AMEC Geomatrix, Inc.		Date Re	eceived	:		0	3/26/10		

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	<u>RL</u>	MDL	<u>DF</u>	Qual	Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual
Acetone	ND	250	120	5		t-1,2-Dichloroethene	ND	2.5	0.93	5	
Benzene	380	2.5	0.47	5		t-1,3-Dichloropropene	ND	5.0	0.51	5	
Benzyl Chloride	ND	7.5	2.0	5		Ethylbenzene	20	2.5	0.57	5	
Bromodichloromethane	ND	2.5	0.51	5		4-Ethyltoluene	3.7	2.5	0.91	5	
Bromoform	ND	2.5	0.76	5		Hexachloro-1,3-Butadiene	ND	7.5	0.90	5	
Bromomethane	ND	2.5	0.46	5		2-Hexanone	ND	7.5	2.6	5	
2-Butanone	33	7.5	0.50	5		Methyl-t-Butyl Ether (MTBE)	4.6	10	0.59	5	J
Carbon Disulfide	ND	50	25	5		Methylene Chloride	1.9	25	0.94	5	B,J
Carbon Tetrachloride	ND	2.5	0.49	5		4-Methyl-2-Pentanone	ND	7.5	0.76	5	
Chlorobenzene	ND	2.5	0.54	5		o-Xylene	19	2.5	0.60	5	
Chloroethane	ND	2.5	0.77	5		p/m-Xylene	71	10	3.8	5	
Chloroform	ND	2.5	0.45	5		Styrene	ND	7.5	0.89	5	
Chloromethane	ND	2.5	0.49	5		Tetrachloroethene	ND	2.5	0.55	5	
Dibromochloromethane	ND	2.5	0.56	5		Toluene	110	25	10	5	
Dichlorodifluoromethane	ND	2.5	0.72	5		Trichloroethene	3.8	2.5	0.53	5	
1,1-Dichloroethane	ND	2.5	0.51	5		Trichlorofluoromethane	ND	5.0	0.39	5	
1,1-Dichloroethene	ND	2.5	0.55	5		1,1,2-Trichloro-1,2,2-Trifluoroethane		7.5	0.50	5	
1,2-Dibromoethane	ND	2.5	0.56	5		1,1,1-Trichloroethane	ND	2.5	0.50	5	
Dichlorotetrafluoroethane	ND	10	0.55	5		1,1,2-Trichloroethane	ND	2.5	0.61	5	
1,2-Dichlorobenzene	ND	2.5	0.55	5		1,3,5-Trimethylbenzene	3.8	2.5	0.84	5	
1,2-Dichloroethane	ND	2.5	0.47	5		1,1,2,2-Tetrachloroethane	ND	5.0	0.53	5	
1,2-Dichloropropane	ND	2.5	0.57	5		1,2,4-Trimethylbenzene	7.5	7.5	1.6	5	J
1,3-Dichlorobenzene	ND	2.5	0.65	5		1,2,4-Trichlorobenzene	ND	10	3.6	5	
1,4-Dichlorobenzene	ND	2.5	0.67	5		Vinyl Acetate	ND	10	2.3	5	
c-1,3-Dichloropropene	ND	2.5	0.70	5		Vinyl Chloride	ND	2.5	0.50	5	
c-1,2-Dichloroethene	ND	2.5	0.66	5							
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qu</u>	al		<u>Surrogates:</u>	<u>REC (%)</u>	Control I	<u>Qua</u>	<u>al</u>	
1,4-Bromofluorobenzene Toluene-d8	100 102	57-129 78-156				1,2-Dichloroethane-d4	105	47-137			







Page 5 of 11

AMEC Geomatrix, Inc. Date Received: 03/26/10 510 Superior Avenue Work Order No: 10-03-2029 Suite 200 Preparation: N/A Newport Beach, CA 92663-3627 Method: EPA TO-15M project: SFPP - Norwalk Site Page 2 of 2 Client Sample Number Lab Sample Date Time Page 2 of 2 Method Blank 099-12-981-445 N/A Air GC/MS AA N/A Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a''1' flag. Earameter Result Result Mol DE Qualified With a''1' flag. Parameter ND 50 0.94 1 t.'														
Suite 200 Preparation: N/A Newport Beach, CA 92663-3627 Method: EPA TO-15/M Project: SFPP - Norwalk Site Page 2 of 2 Client Sample Number Lab Sample Date/Time Date/Time Date/Time Date/Time Oc Batch ID Method Blank 099-12-981-445 N/A Air GCMS AA N/A Or Batch ID Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a 'J' flag.	AMEC Geomatrix, Inc.						Date Re	eceived:				03	8/26/10	C
Suite 200 Preparation: N/A Newport Beach, CA 92663-3627 Method: Units: EPA TO-15M Units: Project: Project: SFPP - Norwalk Site EPA TO-15M Units: Date/Time Calected Date/Time Number Date/Time Calected Date/Time Prepared <	510 Superior Avenue						Work O	rder No:				10-0	3-2099	9
Newport Beach, CA 92663-3627 Method: Units: EPA TO-15M ppb (v/v) Project: SFPP - Norwalk Site Page 2 of 2 Client Sample Number Lab Sample Number Date Time Collected Mark Instrument Date Time Prepared Date Time Analyzed OC Batch ID Method Blank 099-12-981-445 N/a Air GC/MS AA N/A Orgoze(T) Outs CB Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a 'J' flag. Multication (T) Multication (T) DE Qualified (T) Parameter Result RL MDL DE Qualified (T) ND 0.50 0.10 1 Benzene ND 0.50 0.01 1 4Ethylbenzene ND 0.50 0.18 1 Bernonderthoromethane ND 0.50 0.015 1 Hexathoro-(1,3-Butadiene ND 1.5 0.18 1 Bernonderthoromethane ND 0.50 0.083 1 Herwiner (NTE) ND 2.0 0.12 1	Suite 200													
Units: ppb (v/v) Project: SFPP - Norwalk Site Page 2 of 2 Client Sample Number Date for analyzed management page 2 of 2 Client Sample Number Date for analyzed management Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a 'J' flag. Barameter Result RE Qual Parameter Result NL MD 0.50 0.10 Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a 'J' flag. MD 0.50 0.10 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		20.0607					•						-	
Project: SFPP - Norwalk Site Page 2 of 2 Client Sample Number Lab Sample Number Date /Time Collected Date /Time Collected Date /Time Prepared Date /Time Prepared <td>Newpon Beach, CA 9266</td> <td>03-3627</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>6</td> <td></td> <td></td> <td></td>	Newpon Beach, CA 9266	03-3627						•			6			
Lab Sample Number Lab Sample Number Date/Time Collected Matrix Instrument Date Prepared Date/Time Analyzed QC Batch ID Method Blank 099-12-981-445 N/A Air GC/MS AA N/A OV 00/36/01 100326L01 Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a 'J' flag.							Units:					pp	ob (v/v	')
Client Sample Number Number Collected Matrix Instrument Prepared Analyzed OCC Batch ID Method Blank 099-12-981-445 N/A Air GCMS AA N/A Old 20/10 Old 20/10 </td <td>Project: SFPP - Norwalk</td> <td>Site</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Page</td> <td>e 2 of 2</td> <td>2</td>	Project: SFPP - Norwalk	Site										Page	e 2 of 2	2
Intervent Conductor Conductor Traductor Traductor Method Blank 099-12-981-445 N/A Air GC/MS AA N/A N/A 00326L01 Comment(s): -Result were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a 'J' flag.				Lab S	ample		Date/Time			Date	e Dat	e/Time		
Include balant Cost is of it of	Client Sample Number			Num	ber		Collected	Matrix	Instrument	Prepa	red An	alyzed	QC Bat	ch ID
Parameter Result RL MDL DE Qual Parameter Result RL MDL DE Qual Acetone ND 50 25 1 t1,2-Dichloropene ND 0.50 0.19 1 Benzene ND 0.50 0.094 1 t1,2-Dichloropropene ND 0.50 0.11 1 Benzen Chloride ND 0.50 0.004 1 4-Ethylohoropropene ND 0.50 0.18 1 Bromodichloromethane ND 0.50 0.093 1 2-Hexanone ND 1.5 0.52 1 2-Butanone ND 1.5 0.093 1 2-Hexanone ND 1.5 0.15 1 J Carbon Disulifie ND 0.50 0.11 1 o-Aylene ND 0.50 0.12 1 Chlorodhane ND 0.50 0.11 1 o-Aylene ND 0.50 0.11 1	Method Blank			099-12	2-981-4	45	N/A	Air	GC/MS AA	N/A			100326	L01
Parameter Result RL MDL DE Qual Parameter Result RL MDL DE Qual Acetone ND 50 25 1 t1,2-Dichloropene ND 0.50 0.19 1 Benzene ND 0.50 0.094 1 t1,2-Dichloropropene ND 0.50 0.11 1 Benzen Chloride ND 0.50 0.004 1 4-Ethylohoropropene ND 0.50 0.18 1 Bromodichloromethane ND 0.50 0.093 1 2-Hexanone ND 1.5 0.52 1 2-Butanone ND 1.5 0.093 1 2-Hexanone ND 1.5 0.15 1 J Carbon Disulifie ND 0.50 0.11 1 o-Aylene ND 0.50 0.12 1 Chlorodhane ND 0.50 0.11 1 o-Aylene ND 0.50 0.11 1	Comment(s): -Results were ev	aluated to th	ne MDL, c	oncentrat	ions >=	to the	MDL but < RL	, if found, ar	e qualified wi	th a "J" flag	j .			
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Benzyl Chloride ND 1.5 0.39 1 Ethylbenzene ND 0.50 0.11 1 Bromodichloromethane ND 0.50 0.10 1 4-Ethylbenzene ND 0.50 0.13 1 Bromodichloromethane ND 0.50 0.093 1 2-Hexanone ND 1.5 0.52 1 2-Butanone ND 1.5 0.099 1 Methyl-Butyl Ether (MTBE) ND 2.0 0.12 1 Carbon Disulfide ND 0.50 0.098 1 -Hexanone ND 1.5 0.12 1 Chlorobenzene ND 0.50 0.098 1 -Methyl-Pentanone ND 1.5 0.12 1 Chloroform ND 0.50 0.15 1 p/m-Xylene ND 0.50 0.12 1 Chloromethane ND 0.50 0.14 1 Trichloroethene ND 0.50 0.11 1 1.1 1 1.1 <td>Acetone</td> <td>ND</td> <td>50</td> <td>25</td> <td>1</td> <td></td> <td>t-1,2-Dichlo</td> <td>roethene</td> <td></td> <td>ND</td> <td>0.50</td> <td>0.19</td> <td>1</td> <td></td>	Acetone	ND	50	25	1		t-1,2-Dichlo	roethene		ND	0.50	0.19	1	
Bromodichloromethane ND 0.50 0.10 1 4-Ethyltoluene ND 0.50 0.18 1 Bromodorm ND 0.50 0.15 1 Hexachoro-1,3-Butadiene ND 1.5 0.18 1 Bromodorm ND 0.50 0.093 1 2-Hexanone ND 1.5 0.52 1 Carbon Disulfide ND 1.5 0.099 1 Methyl-Heyl (Ether (MTBE) ND 2.0 0.12 1 Carbon Disulfide ND 0.50 0.098 1 Hethyl+2-Pentanone ND 1.5 0.15 1 Chlorobenzene ND 0.50 0.15 1 o-Xylene ND 0.50 0.12 1 Chloroothane ND 0.50 0.090 1 Styrene ND 1.5 0.18 1 Chloromethane ND 0.50 0.11 1 Trichloroethane ND 0.50 0.11 1 1.1 1.1 1.1 <td>Benzene</td> <td>ND</td> <td>0.50</td> <td>0.094</td> <td>1</td> <td></td> <td>t-1,3-Dichlo</td> <td>ropropene</td> <td></td> <td>ND</td> <td>1.0</td> <td>0.10</td> <td>1</td> <td></td>	Benzene	ND	0.50	0.094	1		t-1,3-Dichlo	ropropene		ND	1.0	0.10	1	
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2-Butance 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 0.33 5.0 0.19 1 J Carbon Tetrachloride ND 0.50 0.098 1 4-Methyl-2-Pentanone ND 1.5 0.15 1 Chlorobenzene ND 0.50 0.15 1 p/m-Xylene ND 2.0 0.76 1 Chlorotofram ND 0.50 0.190 1 Styrene ND 1.5 0.18 1 Chlorotorm ND 0.50 0.11 1 Toluene ND 0.50 0.11 1 Dibromochloromethane ND 0.50 0.14 1 Trichlorothene ND 1.5 0.10 1 1,1-Dichloromethane ND 0.50 0.11 1 1,1,2-Trichloro-1,2,2-Trifluoroethane ND 0.50 0.11 1	Bromoform	ND	0.50	0.15	1		Hexachloro-	1,3-Butadie	ne	ND	1.5	0.18	1	
Label And All a	Bromomethane	ND	0.50	0.093	1		2-Hexanone	;		ND	1.5	0.52	1	
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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 0.50 0.11 1 J.1-Dichloroethane ND 0.50 0.11 1 Trichloroethene ND 0.50 0.11 1 J.1-Dichloroethane ND 0.50 0.11 1 1,1,2-Trichloro-1,2,2-Trifluoroethane ND 1.5 0.10 1 J.2-Dichloroethane ND 0.50 0.11 1 1,1,2-Trichloroethane ND 0.50 0.12 1 J.2-Dichloroethane ND 0.50 0.11 1 1,3,5-Trimethylbenzene ND 1.0 0.11 1 1,2,2-Tetrach	Carbon Tetrachloride	ND	0.50	0.098	1		4-Methyl-2-I	Pentanone		ND	1.5	0.15	1	
Chloroditation ND 0.50 0.00 1 Styrene ND 1.5 0.18 1 Chlorodifuoromethane ND 0.50 0.098 1 Tetrachloroethene ND 0.50 0.11 1 Dibromochloromethane ND 0.50 0.11 1 Toluene ND 0.50 0.11 1 Dichlorodifluoromethane ND 0.50 0.14 1 Trichloroethene ND 0.50 0.11 1 1,1-Dichloroethane ND 0.50 0.11 1 Trichloroethene ND 0.50 0.11 1 1,2-Dibloromethane ND 0.50 0.11 1 1,12-Trichloroethane ND 0.50 0.10 1 1,2-Dichloroethane ND 0.50 0.11 1 1,1,2-Trichloroethane ND 0.50 0.12 1 1,2-Dichloroethane ND 0.50 0.11 1 1,3,5-Trimethylbenzene ND 0.50 0.11 1 1,2-Dichloroethane ND 0.50 0.11 1 1,2,4-Trimethylbenzene <td>Chlorobenzene</td> <td>ND</td> <td>0.50</td> <td>0.11</td> <td>1</td> <td></td> <td>o-Xylene</td> <td></td> <td></td> <td>ND</td> <td>0.50</td> <td>0.12</td> <td>1</td> <td></td>	Chlorobenzene	ND	0.50	0.11	1		o-Xylene			ND	0.50	0.12	1	
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Dibromochloromethane ND 0.50 0.11 1 Toluene ND 5.00 2.0 1 Dibromochloromethane ND 0.50 0.14 1 Trichloroethene ND 0.50 0.11 1 1,1-Dichloroethane ND 0.50 0.10 1 Trichloroethene ND 1.0 0.077 1 1,1-Dichloroethane ND 0.50 0.11 1 1,1,2-Trichloroethane ND 1.5 0.10 1 1,2-Dibromoethane ND 0.50 0.11 1 1,1,2-Trichloroethane ND 0.50 0.10 1 1,2-Dichloroethane ND 0.50 0.11 1 1,1,2-Trichloroethane ND 0.50 0.17 1 1,2-Dichlorobenzene ND 0.50 0.11 1 1,3,5-Trimethylbenzene ND 0.50 0.17 1 1,2-Dichloropopane ND 0.50 0.13 1 1,2,4-Trimethylbenzene ND 1.5 0.33 1 <td>Chloroform</td> <td>ND</td> <td>0.50</td> <td>0.090</td> <td>1</td> <td></td> <td>Styrene</td> <td></td> <td></td> <td>ND</td> <td>1.5</td> <td>0.18</td> <td>1</td> <td></td>	Chloroform	ND	0.50	0.090	1		Styrene			ND	1.5	0.18	1	
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1.1-Dichloroethane ND 0.50 0.10 1 Trichlorofluoromethane ND 1.0 0.077 1 1.1-Dichloroethane 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 1,1,2-Trichloro-1,2,2-Trifluoroethane ND 0.50 0.10 1 1,2-Dibromoethane ND 2.0 0.11 1 1,1,1-Trichloroethane ND 0.50 0.10 1 1,2-Dichlorobenzene ND 0.50 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 1.0 0.11 1 1,2-Dichloropropane ND 0.50 0.11 1 1,2,4-Trimethylbenzene ND 1.0 0.11 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	Dibromochloromethane	ND	0.50	0.11			Toluene			ND	5.0	2.0		
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1,2-DihlorobankinoND0.500.1111,1,1-TrichlorobthaneND0.500.1011,2-DiblorobethaneND2.00.1111,1,1-TrichlorobthaneND0.500.1211,2-DichlorobenzeneND0.500.1111,3,5-TrimethylbenzeneND0.500.1711,2-DichlorobethaneND0.500.09511,1,2,2-TetrachlorobethaneND1.00.1111,2-DichlorobenzeneND0.500.1111,2,4-TrimethylbenzeneND1.50.3311,3-DichlorobenzeneND0.500.1311,2,4-TrimethylbenzeneND2.00.7211,4-DichlorobenzeneND0.500.131Vinyl AcetateND2.00.451c-1,3-DichloropropaneND0.500.131Vinyl AcetateND0.500.101c-1,2-DichlorobenzeneND0.500.131Vinyl ChlorideND0.500.101c-1,2-DichlorobenzeneND0.500.131Vinyl ChlorideND0.500.101Surrogates:REC (%)ControlQualSurrogates:REC (%)ControlQual1,4-Bromofluorobenzene9557-1291,2-Dichlorobthane-d411147-137	1,1-Dichloroethane	ND												
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	1.4-Bromofluorobenzene	95					1.2-Dichlor	bethane-d4		111	47-137			
	*						,							

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

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Page 6 of 11

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

Date Received:	
Work Order No:	
Preparation:	
Method:	



Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
INF-03-26	Air	GC 13	N/A	03/26/10	100326D01
Parameter	Sample Conc	DUP Conc	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	18	18	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit





N/A
10-03-2099
N/A
ASTM D-1946

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed		LCS/LCSD Bato Number	h
099-03-002-1,021	Air	GC 36	N/A	03/26/10		100326L01	
Parameter		LCS	Conc LC	<u>SD Conc</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Carbon Dioxide		5.2	25	5.251	0	0-30	
Oxygen + Argon		19.4	45	19.51	0	0-30	
Nitrogen		73.	25	73.48	0	0-30	

RPD - Relative Percent Difference, CL - Control Limit

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Date Received: Work Order No: Preparation: Method: N/A 10-03-2099 N/A EPA TO-15M

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal <u>y</u>		LCS/LCSD Numbe	
099-12-981-445	Air	GC/MS AA	N/A	03/26/	/10	100326L	01
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Benzene	86	101	60-156	44-172	16	0-40	
Carbon Tetrachloride	86	105	64-154	49-169	21	0-32	
1,2-Dibromoethane	93	108	54-144	39-159	15	0-36	
1,2-Dichlorobenzene	87	105	34-160	13-181	19	0-47	
1,2-Dichloroethane	91	103	69-153	55-167	12	0-30	
1,2-Dichloropropane	89	103	67-157	52-172	14	0-35	
1,4-Dichlorobenzene	87	104	36-156	16-176	17	0-47	
c-1,3-Dichloropropene	102	121	61-157	45-173	18	0-35	
Ethylbenzene	95	112	52-154	35-171	16	0-38	
o-Xylene	96	113	52-148	36-164	16	0-38	
p/m-Xylene	90	105	42-156	23-175	15	0-41	
Tetrachloroethene	89	104	56-152	40-168	15	0-40	
Toluene	92	106	56-146	41-161	15	0-43	
Trichloroethene	91	107	63-159	47-175	16	0-34	
1,1,2-Trichloroethane	89	106	65-149	51-163	18	0-37	
Vinyl Chloride	89	92	45-177	23-199	4	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

n M

RPD - Relative Percent Difference, CL - Control Limit



MM

Glossary of Terms and Qualifiers



Work Order Number: 10-03-2099

<u>Qualifier</u>	Definition
*	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.
В	Analyte was present in the associated method blank.
Е	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.
Х	% 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.

Calscience	7440 LINCOLN WAY										Ö	JAIN	OF CUS	TODY	CHAIN OF CUSTODY RECORD
E nvironmental	GARDEN GROVE, CA 928	841-1432									PA	Ë	031	126/10	0
Laboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	(: (714) 894 ⁻¹	7501								PA	PAGE:	-	ן ה	-
LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Definbough	Partners, Attn: Steve E	Definboug	_		D	IENT PRC	UECT NA	CLIENT PROJECT NAME / NUMBER	2				P.O. NO.:	10.:	
Aboress: 1100 Town & Country Road	Road					SFPP - Nor PROJECT CONTACT	- NOT	SFPP - Norwalk Site ROJECT CONTACT:					QUOT	QUOTE NO.:	
						James	James Dye								
(14196, CA 32000 TEL: 714-560-4802	FAX: 714-560-460	-	E-MAIL iames dve@kindermorgan.com	ndermorgan.c					Ŋ	0		1			<u> </u>
[\mathbb{N}			₹ "		REQUESTED ANALYSIS	ANA	L YSIS		
PECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	X V 48HK 72 HK	5 DAYS		10 DAYS			$\left \right $	F	╵┝			-			
	B ARCHIVE SAMPLES UNTIL	S UNTIL	_												
Report to A. Padilla a Direct Bill KMEP/SFP	Report to A. Padilla at Geomatrix, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref	اf. AFE# 81195	1195				5' CH4)						,		
"J" flags required/Us	"J" flags required/Use lowest possible detection limit - all methods.	ction limi	t - all me	thods.		·	u' CO								
		SAMPLING	LING	N O	NO. OF CONT.		Argo								
	L OCATION/					(6	(05/								
SAMPLE ID LAB USE ONLY	DESCRIPTION	DATE	TIME	XIX	21-OT	-НЧТ) Е-ОТ	9461-MT2A							Comments	ş
1 INF- 03- 26	Influent Vapor to SVE	03/25/10	1330	Air	×	×	×					-	Monthly sample	ple	
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Relinquished by. (Signature)	3/26/10			Received by: Kigneture	yr. Ksigna	Kein	W	Z	I	0	Ca Ca		Date: 032610		Time: 1340
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Relinquished by: (Signature)				Received by: (Signature)	ıy: (Signa	(au							Date:	-	Time:
Revised: 07/23/09]											1	

 $(x,y) \in \mathbb{R}^{n}$, where $(x,y) \in \mathbb{R}^{n}$, $(x,y) \in \mathbb{R}^{n}$, (

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Calscience -	WORK ORDER #: 10-03- 2 0 9 9				
	RECEIPT FORM Cooler D of O				
CLIENT: <u>Geomatrix</u>	DATE: 03/26/10				
TEMPERATURE: Thermometer ID: SC1 (Criteria Temperature °C + 0.5 °C (CF) Sample(s) outside temperature criteria (PM/APM Sample(s) outside temperature criteria but received Received at ambient temperature, placed on Ambient Temperature: Air	=oC □ Blank □ Sample contacted by:). ed on ice/chilled on same day of sampling.				
CUSTODY SEALS INTACT: □ Cooler □ □ Sample □					
SAMPLE CONDITION: Chain-Of-Custody (COC) document(s) received with COC document(s) received complete Collection date/time, matrix, and/or # of containers logg	ed in based on sample labels.				
Sampler's name indicated on COC					
Sample container(s) intact and good condition					
Analyses received within holding time Image: Constant of the constant of t					
Volatile analysis container(s) free of headspace □ □ □ Tedlar bag(s) free of condensation □ □ □					
CONTAINER TYPE: Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores [®] □TerraCores [®] □					
Water: UVOA UVOAh UVOAna ₂ 125AGB 125AGB 125AGB 125AGBp 1AGB 1AGBna ₂ 1AGBs 500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna 250PB 250PBn 125PB 125PBznna 100PJ 100PJna ₂ Air: DTedlar [®] Summa [®] Other: Trip Blank Lot#: Checked by: Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by:					
Preservative: h: HCL n: HNO3 na₂:Na₂S₂O₃ Na: NaOH p: H₃PO	s: H ₂ SO ₄ znna: ZnAc ₂ +NaOH f: Field-filtered Scanned by:				

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SOP T100_090 (07/16/09)

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