



**SFPP, L.P.**  
Operating Partnership

July 29, 2010

California Regional Water Quality Control Board  
Los Angeles Region  
320 W. 4th Street, Suite 200  
Los Angeles, California 90013

**Re: Effluent Monitoring Report**  
April through June 2010  
SFPP, L.P.  
15306 Norwalk Boulevard, Norwalk, California  
(NPDES No. CA0063509, CI No. 7497)

Attention: Information Technology Unit

In reference to the subject National Pollutant Discharge Elimination System (NPDES) permit, please find enclosed the second calendar quarter 2010 self-monitoring report for the subject discharge.

I certify under penalty of law that this document and all documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 29 day of July 2010.  
at 10:50 a.m.

A handwritten signature in blue ink, appearing to read 'Stephen Defibaugh', is written over a horizontal line.

\_\_\_\_\_ (signature)

Stephen T. Defibaugh (printed name)

Remediation Project Manager (title)



July 30, 2010

Project No. 1603.044

Mr. Stephen Defibaugh  
Kinder Morgan Energy Partners, L.P.  
1100 Town and Country Road  
Orange, California 92868

**Re: Effluent Monitoring Report  
April 1 to June 30, 2010 (2nd Quarter 2010)  
SFPP, L.P. Norwalk Station  
15306 Norwalk Boulevard, Norwalk, California  
(NPDES No. CA0063509, CI No. 7497)**

Dear Mr. Defibaugh:

This letter-report has been prepared by AMEC Geomatrix, Inc. (AMEC), on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P., to summarize National Pollutant Discharge Elimination System (NPDES) monitoring related to the discharge of treated groundwater from SFPP's product recovery and groundwater extraction system. This system is installed at the former SFPP Norwalk pump station located within the Defense Fuel Support Point - Norwalk at 15306 Norwalk Boulevard in Norwalk, California (the site). SFPP performed certain operations, maintenance, and monitoring tasks on the product recovery and groundwater extraction system. SFPP has retained AMEC to prepare this letter-report based on information from NPDES monitoring work performed by SFPP. This letter-report describes NPDES monitoring activities during the period April 1 through June 30, 2010.

## **REMEDIATION SYSTEM**

The remediation system at the site consists of soil vapor extraction (SVE) and total fluids extraction (TFE; extraction of free product and/or groundwater) for product recovery, groundwater extraction (GWE) for hydraulic control, and treatment of extracted soil vapors and groundwater. SVE is performed using a blower to remove soil vapors at a rate of up to 2,500 standard cubic feet per minute from up to 32 SVE wells. The extracted vapors are conveyed to a knockout tank that separates entrained moisture from the soil vapors. Soil vapors are then treated in a catalytic oxidizer prior to emission 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.

The free product and groundwater extraction portion of the system currently consists of eighteen TFE wells with top loading pumps and two GWE wells with bottom-loading pumps that are located in the south central part of the site, and three TFE wells that are located in the southeastern part of the site. The West Side Barrier (WSB) groundwater extraction system was shut down in August 2008 based on the reduced lateral extent and low concentrations of volatile organic compounds west of the site. During second quarter 2010, two WSB wells were temporarily operated to control the selenium concentration in extracted groundwater as

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**AMEC Geomatrix**

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Kinder Morgan Energy Partners, L.P.  
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discussed in the Selenium Management Evaluation Update submitted to the Los Angeles Regional Water Quality Control Board (RWQCB) on June 10, 2010.

Free product and groundwater recovered by pneumatically-operated top-loading total fluids pumps and bottom-loading groundwater pumps in the south-central and southeastern parts of the site and liquid condensate from the knockout tank 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). Treatment of groundwater using GAC only was discussed with and approved by Mr. Mazhar Ali of the RWQCB on November 18, 2008. Treated water is routed through an on-site 8,000-gallon holding tank prior to discharge under NPDES Permit No. CA0063509 (CI No. 7497) issued by the RWQCB.

#### **SUMMARY OF QUARTERLY OPERATIONS**

Approximately 1,076,986 gallons of treated groundwater were discharged during the reporting period. This total includes groundwater extracted from the south-central and southeastern areas. As stated above, two WSB wells were temporarily operated to evaluate the efficacy of blending water with lower-selenium-concentrations from these wells with groundwater with elevated selenium concentrations extracted from the south-central and southeastern areas during second quarter 2010. Table 1 summarizes the average daily flow rate by week during the reporting period. Remediation of the south-central and southeastern areas was performed throughout the quarter with the following exceptions.

- The TFE/GWE system shut down on multiple occasions due to high level alarms for the transfer tank. Corrective actions taken included installing a new bag filter housing on April 29, 2010, and new water conveyance piping to bypass the air stripper to improve the flow of water through the TFE/GWE system. Further troubleshooting on May 12, 2010, showed that the high level switch for the transfer tank was malfunctioning and the switch was replaced on May 14, 2010.
- The TFE/GWE system shut down on multiple occasions due to main breaker trips. An electrical contractor began investigating the circuit breakers on April 16, 2010. On June 14, 2010, a generator was installed at the site to power the remediation systems after breaker trips continued to shut down the systems. The generator was temporarily shut down between June 20 and June 22, 2010, due to a fuel leak at the generator. The generator will continue to power the remediation systems until the electrical issues are resolved.
- The TFE/GWE system was shut down on April 29, 2010, for pump repairs at multiple TFE/GWE wells and restarted on May 3, 2010.
- The TFE/GWE system was shut down during June 11 to June 15, 2010, to evaluate selenium concentrations in the extraction wells. During this shutdown period,

Mr. Stephen Defibaugh  
Kinder Morgan Energy Partners, L.P.  
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groundwater samples were collected from TFE and GWE wells and analyzed for selenium. Based on the results of these analyses, the following wells were selected for pumping when the system was restarted on June 15, 2010: wells MW-SF-14, GMW-O-11, GMW-O-15, GMW-O-18, and GMW 36. These wells were selected because their aggregate selenium concentration was expected to meet the discharge limits for selenium specified in the NPDES permit noted above (4.1 micrograms per liter [ $\mu\text{g/L}$ ]). During the shutdown period, additional repairs and enhancements were made to the TFE/GWE system including cleaning and repair of TFE pumps. Additionally, remediation wells GMW-O-15 and GMW-36 were redeveloped on June 17, 2010.

### **EFFLUENT MONITORING**

Effluent water samples were collected pursuant to the Waste Discharge Requirements (WDRs) under Order No. R4-2005-0072 (Order). Samples were collected at the Order-designated monitoring points:

- M-001 – Remediation System Effluent;
- R-001 – 50 feet upstream of the discharge point into Coyote Creek; and
- R-002 – 50 feet downstream of the discharge point into Coyote Creek.

Samples were transported to Calscience Environmental Laboratories, Inc. (Calscience) in Garden Grove, California, for analysis. Calscience is certified by the National Environmental Laboratory Accreditation Program and the California Department of Health Services Environmental Laboratory Accreditation Program. The samples were analyzed in accordance with current United States Environmental Protection Agency guideline procedures or as specified in the WDRs for the site. Analytical results for the monthly and quarterly effluent monitoring are summarized in Table 2. Laboratory analytical reports and chain-of-custody documents are included in Appendix A.

### **VISUAL MONITORING OF COYOTE CREEK**

Visual observations of the receiving water (Coyote Creek) were performed in the vicinity of the discharge point on June 8, 2010.

On June 8, 2010, the weather condition was sunny and warm and the tide was observed to be low. The water in Coyote Creek was clear and no oil or grease films, color patches, or odors were apparent in the water. The California brown pelican or California least tern were not observed to be present near the discharge point during the time of monitoring.

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## **SUMMARY OF RESULTS AND COMPLIANCE**

As shown on Table 2, the results of the effluent monitoring indicate that discharge limitations were met during the reporting period with one exception.

In the effluent sample collected on May 14, 2010, selenium was detected at a concentration of 4.79 µg/L, which is more than the Average Monthly Effluent Limitation (AMEL) for selenium of 4.1 µg/L but less than the Maximum Daily Effluent Limitation (MDEL) for selenium of 8.2 µg/L. Mr. Mazhar Ali of the RWQCB was notified on May 19, 2010, within 24 hours of receiving the selenium results and approved an accelerated sampling schedule comprised of additional samples to be collected within 30 days of May 14, 2010, to evaluate compliance for the month of May 2010. Additional effluent samples were collected on May 21, May 25, June 7, June 9, and June 11, 2010. Selenium results for these additional samples were 4.11, 4.17, 7.04, 4.67, and 6.15 µg/L, respectively. The average of the six selenium results from the 30-day period beginning on May 14, 2010, was 5.16 µg/L. The system was shut down during June 11 through June 15, 2010, for further evaluation of selenium in groundwater. During this shutdown period, groundwater samples were collected from TFE and GWE wells and analyzed for selenium. Based on the results of these analyses, five wells were restarted on June 15, 2010. The effluent water sampled collected on June 25, 2010, indicated the five-well pumping configuration produced an aggregated selenium concentration of 3.86 µg/L, which is in compliance with the selenium AMEL.

As previously reported in the Effluent Monitoring Report for first quarter 2010, chronic toxicity was detected at more than one chronic toxicity unit (TUc) for Ceriodaphnia reproduction in the effluent sample collected on March 3, 2010. In accordance with the Initial Investigation Toxicity Reduction Work Plan (Initial TRE Work Plan), dated March 3, 2006, a sample was collected at R-002, located 50 feet downstream of the discharge point into Coyote Creek on May 5, 2010. In addition, a sample was collected at M-001 (the treatment system effluent) and R-001, located 50 feet upstream of the discharge point, to reevaluate the effluent and evaluate conditions upstream of the discharge point. The samples were analyzed for chronic toxicity using Ceriodaphnia, the species that produced chronic toxicity results of more than one TUc in the March 3, 2010, effluent sample. Chronic toxicity for Ceriodaphnia was not detected above 1.0 TUc in the samples collected at R-002 and R-001. In accordance with the Initial TRE Work Plan, the effluent is not considered to cause or contribute to downstream chronic toxicity and the Initial Investigation TRE is considered to be complete. Results for the March 3 and May 5, 2010, toxicity monitoring are summarized in Table 3.

## **WASTE HAULING**

Spent GAC was removed from the site on April 13, 2010. Prominent Systems, Inc. (13095 East Temple Avenue, City of Industry, California 91746-1418) transported 2,000 pounds (dry weight; 4,000 pounds wet weight) of spent GAC to California Carbon Co., Inc. at 2825 East Grant Street, Wilmington, California 90744.

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Should you require any further information, please do not hesitate to contact one of the undersigned at (949) 642-0245.

Sincerely,  
AMEC Geomatrix, Inc.



Alex Padilla  
Staff Engineer



Sherrick Baffert  
Staff Engineer



Shioh-Whei Chou, PE  
Senior Engineer

Attachments:	Table 1	Effluent Flow Rate, pH, and Temperature Measurements
	Table 2	NPDES Effluent Monitoring Results
	Table 3	NPDES Chronic and Acute Toxicity Monitoring Results
	Appendix A	Laboratory Analytical Reports and Chain-of-Custody Documents

## TABLES

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**TABLE 1**

**EFFLUENT FLOW RATE, pH, AND TEMPERATURE MEASUREMENTS<sup>1</sup>**

SFPP, L.P.  
Norwalk, California

<b>Date</b>	<b>Average Flow Rate (gallons per day)</b>	<b>pH</b>	<b>Temperature (Deg F)</b>
<b>Discharge Limits</b>			
<b>Instantaneous Minimum</b>	NE	6.5	NE
<b>Instantaneous Maximum</b>	NE	8.5	86
<b>Maximum Daily</b>	150,000	NE	NE
<b>Results</b>			
04/07/10	12,459	no discharge <sup>3</sup>	no discharge
04/16/10	1,166	7.8	79
04/23/10	10,256	7.8	70
04/28/10	32,090	7.7	75
05/04/10	5,663	7.5	80
05/11/10	1,027	7.8	75
05/18/10	17,410	7.5	73
05/25/10	15,017	7.4	72
06/01/10	48	7.4	72
06/08/10	14,365	7.8	71
06/17/10	11,695	7.6	84
06/25/10	20,769	7.8	80
06/29/10	23,531	7.8	75

Notes:

1. Data reported based on information provided by Envent Corporation.
2. California Regional Water Quality Control Board Waste Discharge Requirements.
3. "no discharge" indicates that the product recovery and groundwater extraction system was shut down and no discharge occurred on date of inspection.

Abbreviations:

Deg F = degrees Fahrenheit  
NE = not established



**TABLE 2**  
**NPDES EFFLUENT MONITORING RESULTS**  
**Second Quarter 2010**  
 SFPP, L.P.  
 Norwalk, California

Analyte	Sampling Frequency	Analysis Method	Units	MDL	RL	ML <sup>1</sup>	Discharge Limits <sup>2</sup>		Sample Date and Results							
							Monthly Average	Daily Maximum	April 20, 2010	May 14, 2010	May 21, 2010	May 25, 2010	June 7, 2010	June 9, 2010	June 11, 2010	June 25, 2010
Temperature	Monthly	field	deg F	--	--	--	NE	86	70.40	75.10	-- <sup>3</sup>	--	--	--	--	79.80
Oil and Grease	Monthly	SM 5520B	mg/L	0.88	1.0	NE	10	15	ND	ND	--	--	--	--	--	ND
TPHg	Monthly	EPA 8015B (M)	µg/L	48	100	NE	NE	100	ND	ND	--	--	--	--	--	ND
Settleable Solids	Monthly	SM 2540F	mL/L/hr	0.10	0.10	NE	0.1	0.3	ND	ND	--	--	--	--	--	ND
Total Suspended Solids	Monthly	SM 2540D	mg/L	0.95	1.0	NE	50	75	2.0	4.6	--	--	--	--	--	1.1
Phenol	Monthly	EPA 420.1	mg/L	0.046	0.10	0.050	0.3	NE	ND	0.054 J <sup>4</sup>	--	--	--	--	--	0.074 J
Benzene	Monthly	EPA 8260B	µg/L	0.28	0.50	2.0	1	NE	ND	ND	--	--	--	--	--	ND
1,1-Dichloroethane	Monthly	EPA 8260B	µg/L	0.37	1.0	1.0	5	NE	ND	ND	--	--	--	--	--	ND
1,2-Dichloroethane	Monthly	EPA 8260B	µg/L	0.31	0.50	2.0	0.5	NE	ND	ND	--	--	--	--	--	ND
Ethylbenzene	Monthly	EPA 8260B	µg/L	0.22	1.0	2.0	10	NE	ND	ND	--	--	--	--	--	ND
Methyl ethyl ketone	Monthly	EPA 8260B	µg/L	6.9	10	NE	50	NE	ND	ND	--	--	--	--	--	ND
Toluene	Monthly	EPA 8260B	µg/L	0.33	1.0	2.0	10	NE	ND	ND	--	--	--	--	--	ND
Methyl tertiary-butyl ether	Monthly	EPA 8260B	µg/L	0.30	1.0	NE	13	NE	ND	ND	--	--	--	--	--	ND
Total Xylenes	Monthly	EPA 8260B	µg/L	0.45	1.0	NE	10	NE	ND	ND	--	--	--	--	--	ND
Copper	Monthly	EPA 6020	µg/L	0.105	1.0	0.5	22.28	44.70	0.794	3.03	--	--	--	--	--	1.03
Mercury	Monthly	EPA 7470A	µg/L	0.0177	0.0500	0.2	0.051	0.102	ND	ND	--	--	--	--	--	ND
Selenium	Monthly	EPA 6020	µg/L	0.554	1.0	2.0	4.1	8.2	3.14	4.79	4.11	4.17	7.04	4.67	6.15	3.86
Chromium VI	Monthly	EPA 7199	µg/L	0.057	1.0	NE	8.12	16.29	0.13	ND	--	--	--	--	--	1.1
Lead	Quarterly	EPA 6020	µg/L	0.170	1.0	0.5	NE	15	ND	--	--	--	--	--	--	--
Turbidity	Quarterly	SM 2130B	NTU	0.044	0.050	NE	50	75	0.42	--	--	--	--	--	--	--

**Notes:**

1. State Water Resources Control Board Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California
2. California Regional Water Quality Control Board Waste Discharge Requirements.
3. -- = not measured or not analyzed.
4. J = Analyte was detected at a concentration below the RL and above the MDL and ML. Reported value is estimated.

**Abbreviations:**

EPA = Environmental Protection Agency  
 BOD = biological oxygen demand (5 days at 20 degrees Celsius)  
 deg F = degrees Fahrenheit  
 DNQ = detected, but not quantified. Result is greater than or equal to the laboratory MDL but less than the ML (or RL if no ML is listed)  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter  
 MDL = laboratory method detection limit  
 ML = minimum level. See note 1.  
 mL/L/hr = milliliters per liter per hour  
 NTU = nephelometric turbidity units  
 ND = not detected above the MDL listed  
 NE = not established  
 RL = laboratory reporting limit  
 TPHg = total petroleum hydrocarbons quantified as gasoline

**TABLE 3**  
**NPDES CHRONIC TOXICITY MONITORING RESULTS**

SFPP, L.P.  
Norwalk, California

Analyte	Analysis Method	TRE Trigger <sup>1</sup>	Units <sup>2</sup>	March 3, 2010	May 5, 2010	May 5, 2010	May 5, 2010
				M-001 (Effluent)	M-001 (Effluent)	R-001 (50 ft. upstream)	R-002 (50 ft. downstream)
Chronic - Ceriodaphnia - Survival	821-R-02-013	>1.0	TUc	1.00	1.00	1.00	1.00
Chronic - Ceriodaphnia - Reproduction	821-R-02-013	>1.0	TUc	>1.00	>1.00	1.00	1.00
Chronic - Selenastrum - Growth	821-R-02-013	>1.0	TUc	1.00	--	--	--
Chronic - Fathead Larvae - Survival	821-R-02-013	>1.0	TUc	1.00	--	--	--
Chronic - Fathead Larvae - Growth	821-R-02-013	>1.0	TUc	1.00	--	--	--
Acute - Fathead Minnow - Survival	821-R-02-012	<90%	% survival	100%	--	--	--

**Notes:**

1. If the acute toxicity result is less than 90% survival or the chronic toxicity result is more than 1 Chronic Toxicity (TUc), then the Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan dated March 3, 2006 will be implemented.
2. >1.0 = toxicity detected above 1 toxicity unit.
3. "--" = not measured or not analyzed.

**Abbreviations:**

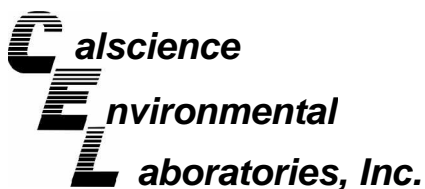
TUc = Chronic Toxicity Unit, where TUc = 100/NOEC  
NPDES = National Pollutant Discharge Evaluation System.



## APPENDIX A

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Laboratory Analytical Reports and Chain-of-Custody  
Documents



April 27, 2010

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

Subject: **CalScience Work Order No.: 10-04-1427**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/20/2010 and analyzed in accordance with the attached chain-of-custody.

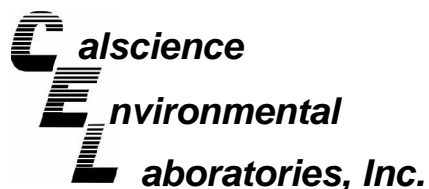
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



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

Date Received: 04/20/10  
Work Order No: 10-04-1427  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20	10-04-1427-1-A	04/20/10 12:00	Aqueous	ICP/MS 03	04/20/10	04/20/10 19:55	100420L01

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

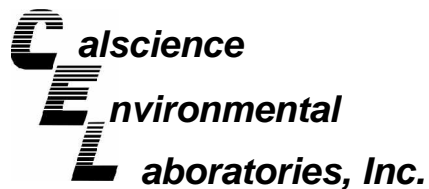
Parameter	Result	RL	MDL	DF	Qual	Units
Lead	ND	0.00100	0.000170	1		mg/L

<b>Method Blank</b>	<b>096-06-003-2,751</b>	<b>N/A</b>	<b>Aqueous</b>	<b>ICP/MS 03</b>	<b>04/20/10</b>	<b>04/20/10 16:28</b>	<b>100420L01</b>
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Comment(s): -Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Lead	ND	0.00100	0.000170	1		mg/L

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



## Analytical Report



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

Date Received: 04/20/10  
Work Order No: 10-04-1427  
Preparation: N/A  
Method: SM 2130 B

Project: SFPP - Norwalk Site

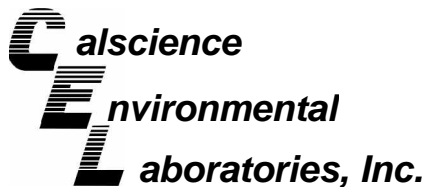
Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20	10-04-1427-1-B	04/20/10 12:00	Aqueous	TUR 3	N/A	04/20/10 18:26	A0420TURD1

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Turbidity	0.42	0.050	0.044	1		NTU

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



**Quality Control - Spike/Spike Duplicate**



AMEC Geomatrix, Inc.  
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 Newport Beach, CA 92663-3627

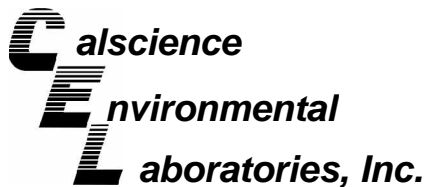
Date Received: 04/20/10  
 Work Order No: 10-04-1427  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-04-1365-2	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	99	98	79-121	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc.  
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 Newport Beach, CA 92663-3627

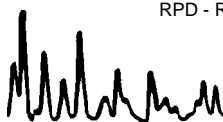
Date Received 04/20/10  
 Work Order No: 10-04-1427  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project: SFPP - Norwalk Site

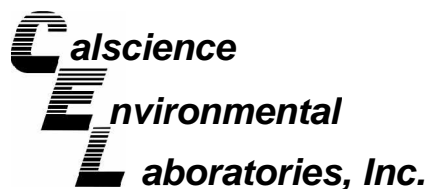
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-04-1365-2	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420S01

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	97	96	75-125	2	0-10	

RPD - Relative Percent Difference , CL - Control Limit







## Quality Control - Duplicate



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

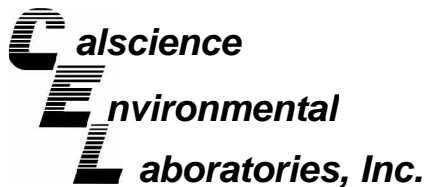
Date Received: 04/20/10  
Work Order No: 10-04-1427  
Preparation: N/A  
Method: SM 2130 B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
10-04-1341-1	Aqueous	TUR 3	N/A	04/20/10	A0420TURD1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Turbidity	0.33	0.34	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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 510 Superior Avenue  
 Suite 200  
 Newport Beach, CA 92663-3627

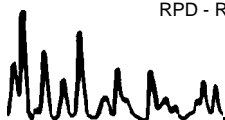
Date Received: N/A  
 Work Order No: 10-04-1427  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,751	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	98	98	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



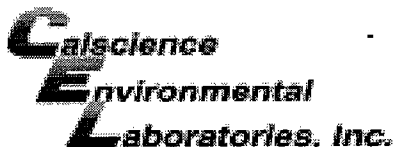
Work Order Number: 10-04-1427
 

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







WORK ORDER #: 10-04-1427

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KMEP

DATE: 04/20/10

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

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

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

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

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

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

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present     N/A    Initial: DL

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: DL

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

**CONTAINER TYPE:**

**Solid:**  4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**  VOA     VOAh     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBp     1AGB     1AGBna<sub>2</sub>     1AGBs

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

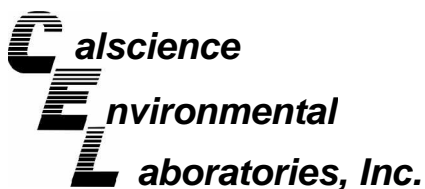
250PB     250PBn     125PB     125PBzanna     100PJ     100PJna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

**Air:**  Tedlar®     Summa®    **Other:**  \_\_\_\_\_    **Trip Blank Lot#:** \_\_\_\_\_    **Labeled/Checked by:** DL

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

**Preservative:** h: HCL    n: HNO<sub>3</sub>    na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na: NaOH    p: H<sub>3</sub>PO<sub>4</sub>    s: H<sub>2</sub>SO<sub>4</sub>    zanna: ZnAc<sub>2</sub>+NaOH    f: Field-filtered    **Scanned by:** DL





## Supplemental Report 2

April 29, 2010

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

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

Dear Client:

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

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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager

## Analytical Report



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

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

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20	10-04-1426-2-F	04/20/10 12:15	Aqueous	GC 25	04/23/10	04/24/10 02:46	100423B01

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

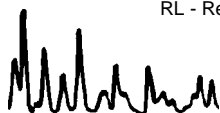
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	84	38-134				

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

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

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





## Analytical Report



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

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

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20	10-04-1426-2-B	04/20/10 12:15	Aqueous	GC/MS CC	04/22/10	04/22/10 20:47	100422L01

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene	ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1							
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	121	80-132				1,2-Dichloroethane-d4	127	80-141			
Toluene-d8	104	80-120				1,4-Bromofluorobenzene	86	76-120			

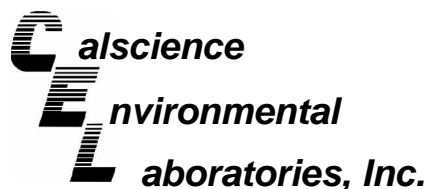
Method Blank	099-14-001-513	N/A	Aqueous	GC/MS CC	04/22/10	04/22/10 12:11	100422L01
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Comment(s): -Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene	ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1							
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	116	80-132				1,2-Dichloroethane-d4	122	80-141			
Toluene-d8	102	80-120				1,4-Bromofluorobenzene	91	76-120			

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





Analytical Report



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

Date Received: 04/20/10  
 Work Order No: 10-04-1426  
 Preparation: EPA 3020A Total  
 Method: EPA 6020  
 Units: mg/L

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20	10-04-1426-2-H	04/20/10 12:15	Aqueous	ICP/MS 03	04/20/10	04/20/10 19:51	100420L01

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

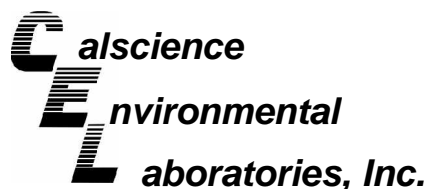
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Copper	0.000794	0.00100	0.000105	1	J	Selenium	0.00314	0.00100	0.000554	1	

Method Blank	096-06-003-2,751	N/A	Aqueous	ICP/MS 03	04/20/10	04/20/10 16:28	100420L01
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Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Copper	ND	0.00100	0.000105	1		Selenium	ND	0.00100	0.000554	1	

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



## Analytical Report



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

Date Received: 04/20/10  
Work Order No: 10-04-1426  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20	10-04-1426-2-D	04/20/10 12:15	Aqueous	Mercury	04/21/10	04/21/10 12:23	100421L02

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

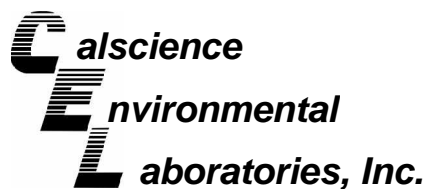
Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.0000500	0.0000177	1		mg/L

<b>Method Blank</b>	<b>099-12-510-66</b>	<b>N/A</b>	<b>Aqueous</b>	<b>Mercury</b>	<b>04/21/10</b>	<b>04/21/10 12:07</b>	<b>100421L02</b>
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Comment(s): -Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.0000500	0.0000177	1		mg/L

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



## Analytical Report



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

Date Received: 04/20/10  
Work Order No: 10-04-1426

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EFF-04-20	10-04-1426-2	04/20/10	Aqueous

Comment(s): (24) Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	04/26/10	04/26/10	EPA 420.1
Chromium, Hexavalent (24)	0.13	1.0	0.057	1	J	ug/L	N/A	04/20/10	EPA 7199
Solids, Total Suspended (24)	2.0	1.0	0.95	1		mg/L	04/26/10	04/26/10	SM 2540 D
Solids, Settleable (24)	ND	0.10	0.10	1		mL/L/hr	04/20/10	04/20/10	SM 2540 F
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	04/22/10	04/22/10	SM 5520 B

Method Blank	N/A	Aqueous
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Comment(s): (24) Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	04/26/10	04/26/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.057	1		ug/L	N/A	04/20/10	EPA 7199
Solids, Total Suspended (24)	ND	1.0	0.95	1		mg/L	04/26/10	04/26/10	SM 2540 D
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	04/22/10	04/22/10	SM 5520 B

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



## Quality Control - Spike/Spike Duplicate



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510 Superior Avenue  
Suite 200  
Newport Beach, CA 92663-3627

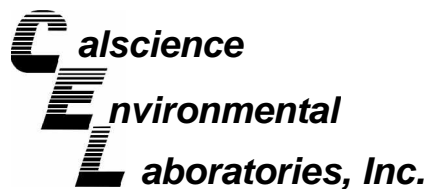
Date Received: 04/20/10  
Work Order No: 10-04-1426  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-04-1365-2	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	88	87	72-108	2	0-10	
Selenium	87	86	59-125	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - PDS / PDSD



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

Date Received 04/20/10  
Work Order No: 10-04-1426  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-04-1365-2	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420S01

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	88	86	75-125	2	0-10	
Selenium	88	87	75-125	0	0-12	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

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

Project SFPP - Norwalk Site

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

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

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

Date Received: 04/20/10  
Work Order No: 10-04-1426  
Preparation: EPA 7470A Total  
Method: EPA 7470A

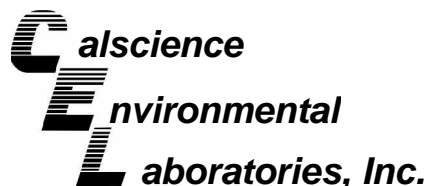
Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-04-1452-1	Aqueous	Mercury	04/21/10	04/21/10	100421S02

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	97	98	57-141	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



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

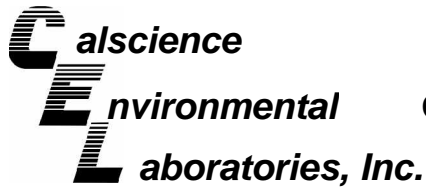
Date Received: 04/20/10  
Work Order No: 10-04-1426  
Preparation: EPA 5030B  
Method: EPA 8260B

Project SFPP - Norwalk Site

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

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

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

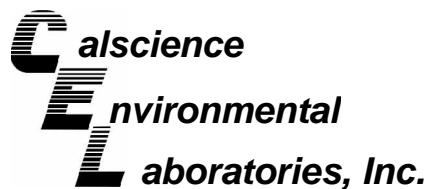
Date Received: N/A  
Work Order No: 10-04-1426

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	EFF-04-20	04/20/10	N/A	106	96	70-130	10	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Duplicate



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

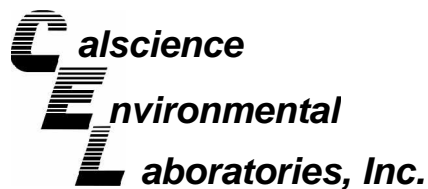
Date Received: N/A  
Work Order No: 10-04-1426

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Settleable	SM 2540 F	10-04-1447-1	04/20/10	ND	ND	NA	0-25	
Solids, Total Suspended	SM 2540 D	10-04-1108-11	04/26/10	69	69	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

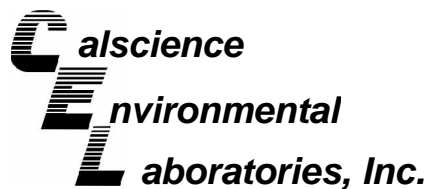
Date Received: N/A  
Work Order No: 10-04-1426  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,751	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420L01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Copper	98	100	80-120	1	0-20	
Selenium	101	99	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

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

Project: SFPP - Norwalk Site

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

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

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-04-1426  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-510-66	Aqueous	Mercury	04/21/10	04/21/10	100421L02

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	96	95	85-121	0	0-4	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

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

Project: SFPP - Norwalk Site

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

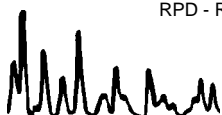
Total number of LCS compounds : 16

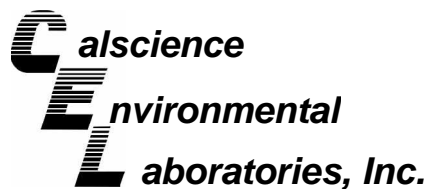
Total number of ME compounds : 1

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-04-1426

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-2,577	N/A	04/20/10	96	96	80-120	0	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,206	04/26/10	04/26/10	97	97	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

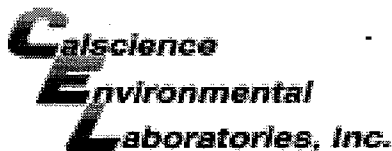


Work Order Number: 10-04-1426

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







WORK ORDER #: 10-04-7426

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KMEP

DATE: 04/20/10

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

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

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

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

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

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

**CUSTODY SEALS INTACT:**

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

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: g

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

**CONTAINER TYPE:**

**Solid:**     4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**     VOA     VOAh     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBp     1AGB     1AGBna<sub>2</sub>     1AGBs

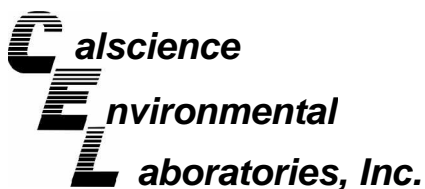
500AGB     500AGJ     500AGJs     250AGB     250CGB     250CGBs     1PB     500PB     500PBna

250PB     250PBn     125PB     125PBzanna     100PJ     100PJna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

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

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

**Preservative:** h: HCL    n: HNO<sub>3</sub>    na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na: NaOH    p: H<sub>3</sub>PO<sub>4</sub>    s: H<sub>2</sub>SO<sub>4</sub>    zanna: ZnAc<sub>2</sub>+NaOH    f: Field-filtered    **Scanned by:** WSC



May 27, 2010

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

Subject: **CalScience Work Order No.: 10-05-0151**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

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

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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

May 25, 2010

Mr. Stephen Nowak  
Calscience Environmental  
7440 Lincoln Way  
Garden Grove, CA 92841-1427

Dear Mr. Nowak:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*

Results were as follows:

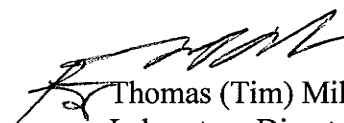
CLIENT: Calscience Environmental  
SAMPLE I.D.: UCC-05-04 (10-05-0151)  
DATE RECEIVED: 5 May - 10  
ABC LAB. NO.: CSE0510.048

**CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY**

SURVIVAL NOEC = 100.00 %  
TU<sub>c</sub> = 1.00  
IC<sub>25</sub> = >100.00 %  
IC<sub>50</sub> = >100.00 %

REPRODUCTION NOEC = 100.00 %  
TU<sub>c</sub> = 1.00  
IC<sub>25</sub> = >100.00 %  
IC<sub>50</sub> = >100.00 %

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

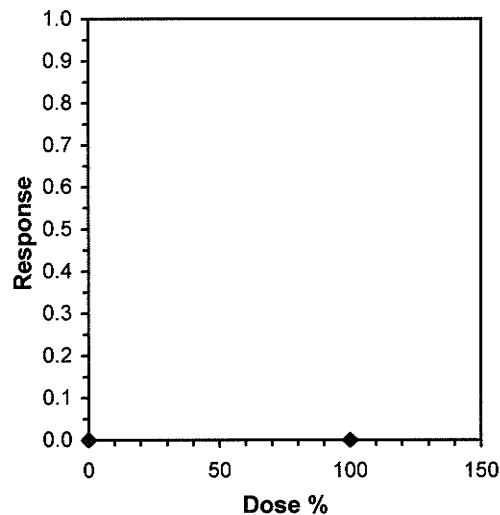
Start Date: 5/5/2010	Test ID: CSE0510048	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: UCC-05-04 (10-05-0151)		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs N Control				

Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			





**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510048	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: UCC-05-04 (10-05-0151)		

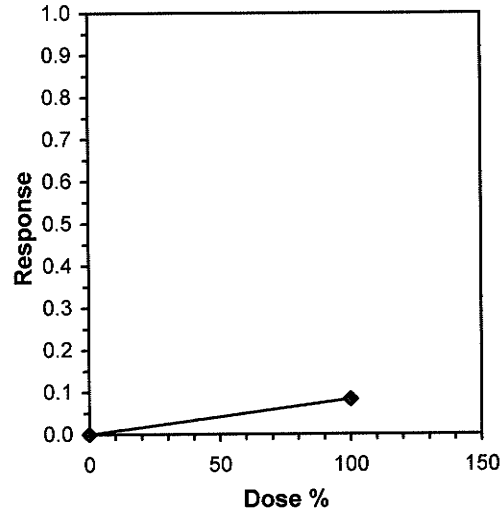
Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	35.000	34.000	32.000	29.000	33.000	31.000	18.000	31.000	32.000	24.000
100	33.000	29.000	27.000	31.000	27.000	27.000	24.000	28.000	24.000	24.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	29.900	1.0000	29.900	18.000	35.000	17.303	10				29.900	1.0000	
100	27.400	0.9164	27.400	24.000	33.000	11.043	10	1.319	1.730	3.279	27.400	0.9164	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.91099	0.868	-1.2749	2.42835						
F-Test indicates equal variances (p = 0.13)	2.92354	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	3.2789	0.10966	31.25	17.9611	0.20369	1, 18

Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05*	59.800			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			

\* indicates IC estimate less than the lowest concentration

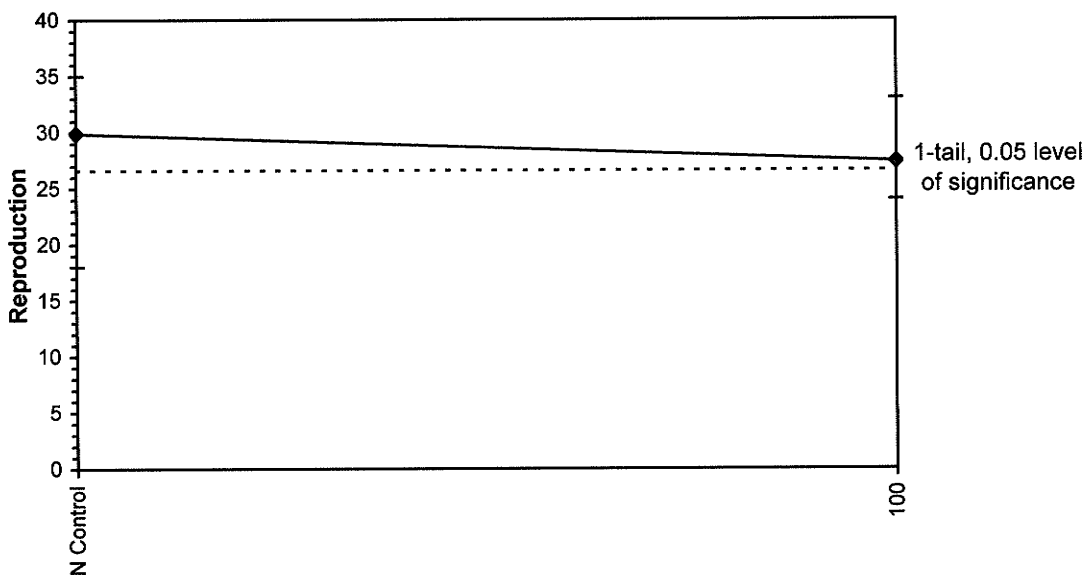




**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510048	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: UCC-05-04 (10-05-0151)		

**Dose-Response Plot**



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510048	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: UCC-05-04 (10-05-0151)		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.14	24.00	24.70	0.27	2.14	8
100		24.04	24.00	24.20	0.07	1.13	8
N Control	pH	8.16	8.10	8.30	0.09	3.71	8
100		8.49	8.30	8.80	0.22	5.57	8
N Control	DO mg/L	7.28	6.20	7.80	0.68	11.35	8
100		7.45	6.10	9.50	1.02	13.57	8
N Control	Hardness mg/L	93.00	88.00	98.00	5.35	2.49	8
100		250.00	250.00	250.00	0.00	0.00	8
N Control	Cond-umhos	381.13	366.00	410.00	15.85	1.04	8
100		2093.38	2003.00	2275.00	107.10	0.49	8
N Control	Alkalinity mg/L	64.00	60.00	68.00	4.28	3.23	8
100		155.00	155.00	155.00	0.00	0.00	8



TOXICITY TESTING • OCEANOGRAPHIC RESEARCH  
May 25, 2010

Mr. Stephen Nowak  
Calscience Environmental  
7440 Lincoln Way  
Garden Grove, CA 92841-1427

Dear Mr. Nowak:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

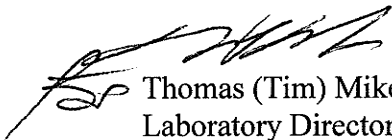
CLIENT:	Calscience Environmental
SAMPLE I.D.:	DCC-05-04 (10-05-0151)
DATE RECEIVED:	5 May - 10
ABC LAB. NO.:	CSE0510.049

#### CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %

REPRODUCTION	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 5/5/2010	Test ID: CSE0510049	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: DCC-05-04 (10-05-0151)		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed Exact P	Critical	Isotonic Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

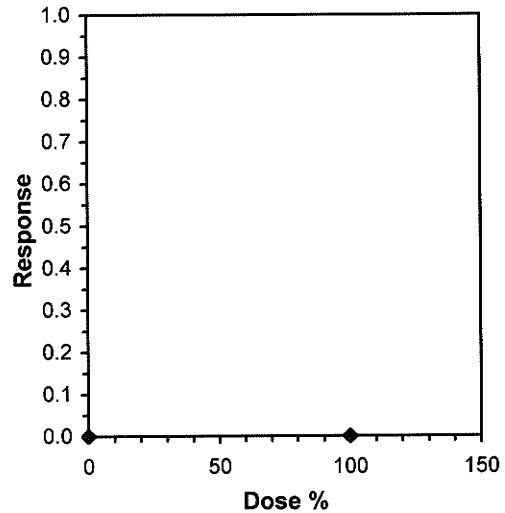
**Hypothesis Test (1-tail, 0.05)**

Fisher's Exact Test	NOEC	LOEC	ChV	TU
	100	>100		1

Treatments vs N Control

**Linear Interpolation (200 Resamples)**

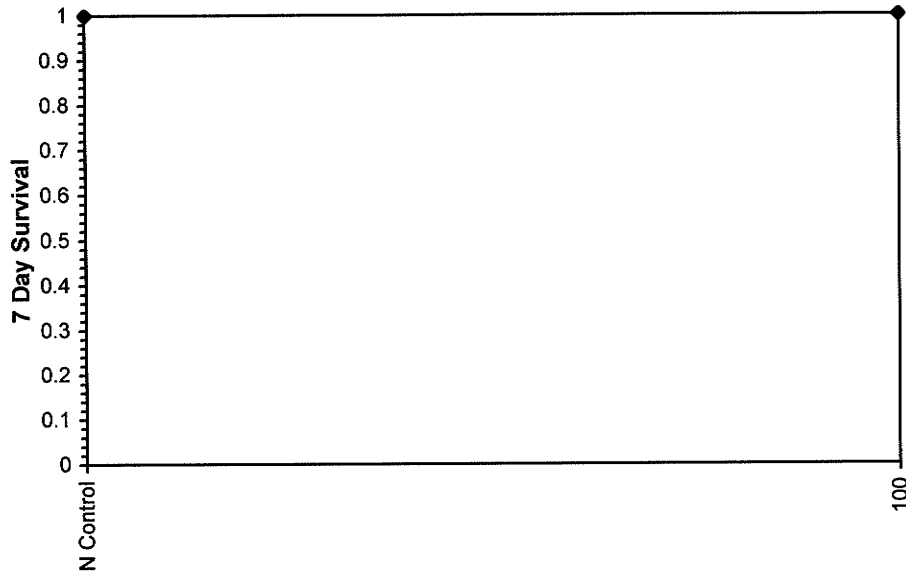
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 5/5/2010	Test ID: CSE0510049	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: DCC-05-04 (10-05-0151)		

**Dose-Response Plot**



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

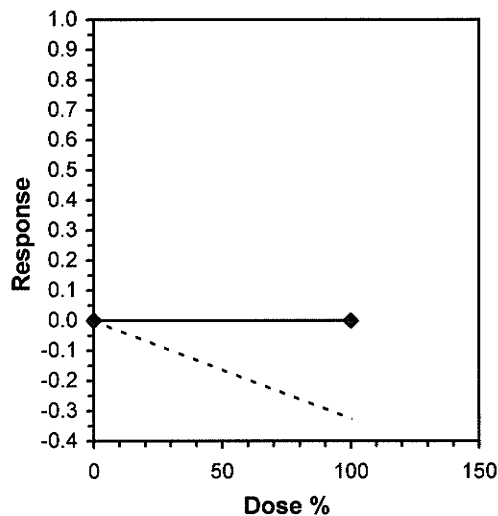
Start Date: 5/5/2010	Test ID: CSE0510049	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: DCC-05-04 (10-05-0151)		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	28.000	24.000	25.000	21.000	20.000	14.000	23.000	17.000	12.000	18.000
100	32.000	32.000	33.000	34.000	24.000	23.000	18.000	23.000	24.000	25.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	20.200	1.0000	20.200	12.000	28.000	24.895	10				23.500	1.0000	
100	26.800	1.3267	26.800	18.000	34.000	20.422	10	-2.808	1.730	4.066	23.500	1.0000	

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.94367	0.868	-0.0519	-1.1335						
F-Test indicates equal variances (p = 0.80)	1.18453	6.54109								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	100	>100		1	4.06622	0.2013	217.8	27.6222	0.01164	1, 18
Treatments vs N Control										

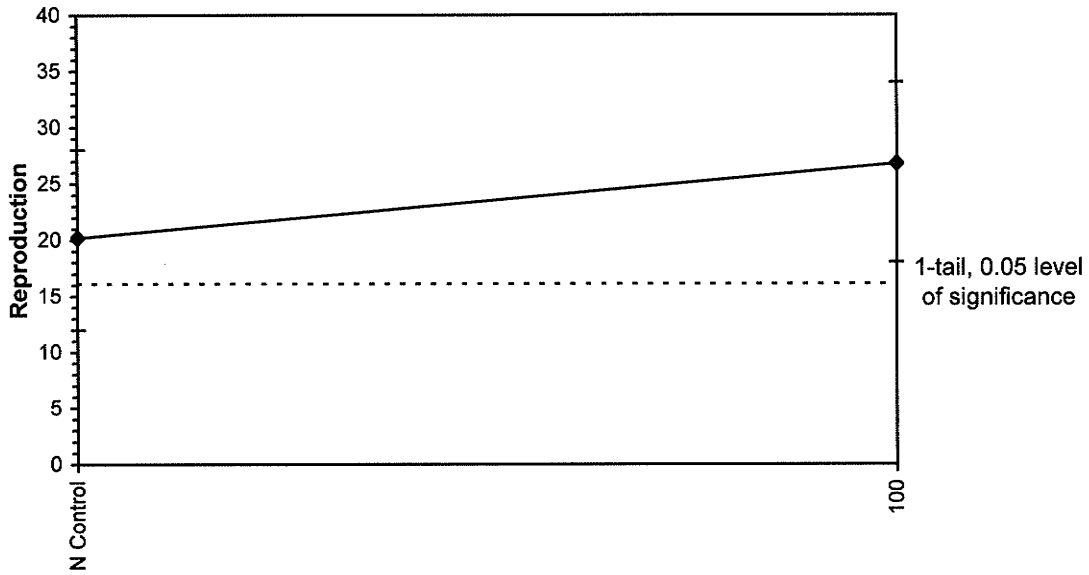
Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510049	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: DCC-05-04 (10-05-0151)		

**Dose-Response Plot**



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510049	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: DCC-05-04 (10-05-0151)		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.14	24.00	24.70	0.27	2.14	8
100		24.04	24.00	24.20	0.07	1.13	8
N Control	pH	8.16	8.10	8.30	0.09	3.71	8
100		8.55	8.30	8.80	0.23	5.57	8
N Control	DO mg/L	7.28	6.20	7.80	0.68	11.35	8
100		7.78	6.70	9.90	0.98	12.70	8
N Control	Hardness mg/L	93.00	88.00	98.00	5.35	2.49	8
100		250.00	250.00	250.00	0.00	0.00	8
N Control	Cond-umhos	381.13	366.00	410.00	15.85	1.04	8
100		2059.63	1984.00	2247.00	106.99	0.50	8
N Control	Alkalinity mg/L	64.00	60.00	68.00	4.28	3.23	8
100		146.00	146.00	146.00	0.00	0.00	8





TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

May 25, 2010

Mr. Stephen Nowak  
Calscience Environmental  
7440 Lincoln Way  
Garden Grove, CA 92841-1427

Dear Mr. Nowak:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. Results were as follows:

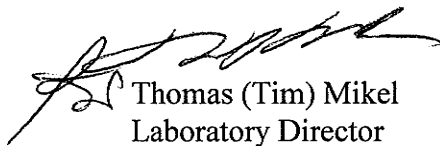
CLIENT: Calscience Environmental  
SAMPLE I.D.: EFF-05-04 (10-05-0151)  
DATE RECEIVED: 5 May - 10  
ABC LAB. NO.: CSE0510.050

**CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY**

SURVIVAL NOEC = 100.00 %  
TUc = 1.00  
IC25 = >100.00 %  
IC50 = >100.00 %

REPRODUCTION NOEC = <100.00 %  
TUc = >1.00  
IC25 = 67.78 %  
IC50 = >100.00 %

Yours very truly,



Thomas (Tim) Mikel  
Laboratory Director

**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 5/5/2010	Test ID: CSE0510050	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: EFF-05-04 (10-05-0151)		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's 1-Tailed		Isotonic	
							Exact P	Critical	Mean	N-Mean
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

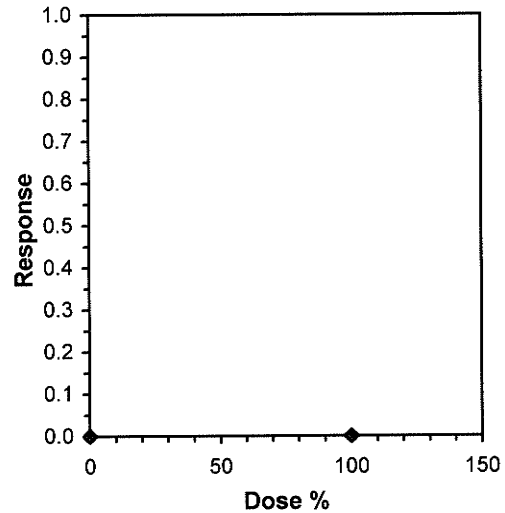
**Hypothesis Test (1-tail, 0.05)**      **NOEC**    **LOEC**    **ChV**    **TU**

Fisher's Exact Test                      100    >100                      1

Treatments vs N Control

**Linear Interpolation (200 Resamples)**

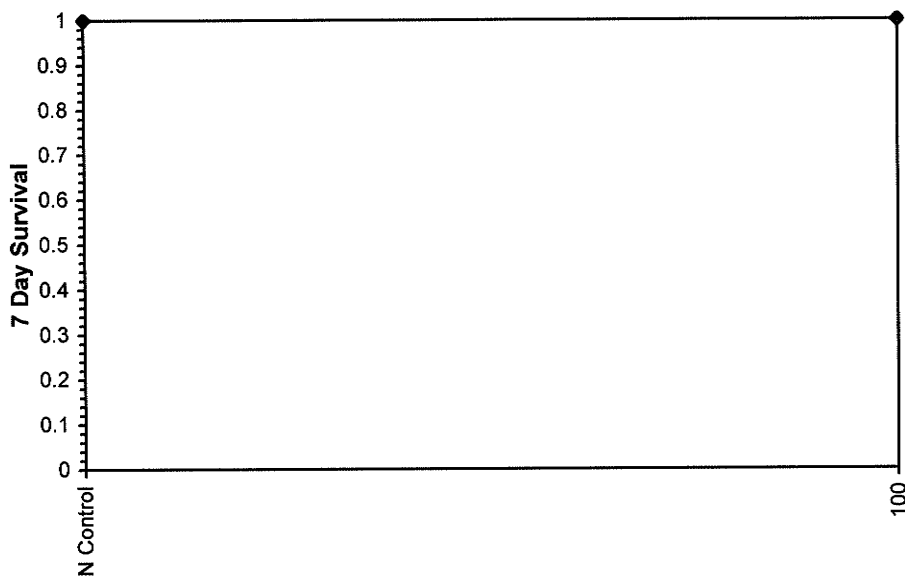
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 5/5/2010	Test ID: CSE0510050	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: EFF-05-04 (10-05-0151)		

**Dose-Response Plot**



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510050	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: EFF-05-04 (10-05-0151)		

Conc-%	1	2	3	4	5	6	7	8	9	10
N Control	32.000	28.000	23.000	15.000	26.000	30.000	20.000	17.000	26.000	27.000
100	15.000	14.000	14.000	15.000	15.000	15.000	15.000	14.000	15.000	22.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
N Control	24.400	1.0000	24.400	15.000	32.000	22.794	10				24.400	1.0000	
*100	15.400	0.6311	15.400	14.000	22.000	15.366	10	4.709	1.730	3.307	15.400	0.6311	

**Auxiliary Tests**

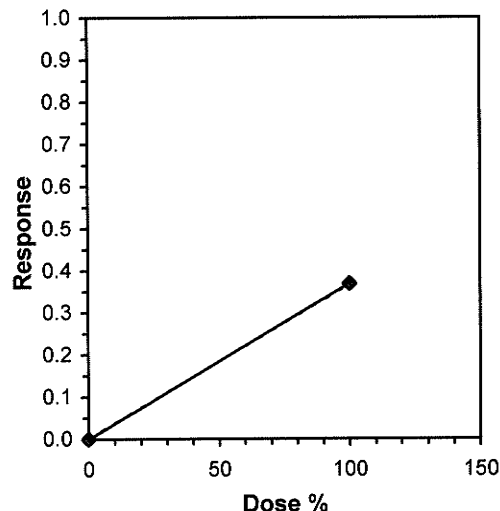
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	Statistic: 0.93453	Critical: 0.868	Skew: -0.2907	Kurt: 0.71604
F-Test indicates equal variances (p = 0.02)	Statistic: 5.52381	Critical: 6.54109		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<100	100			3.30667	0.13552	405	18.2667	1.8E-04	1, 18
Treatments vs N Control										

**Linear Interpolation (200 Resamples)**

Point	%	SD	95% CL		Skew
IC05*	13.556	2.255	10.999	19.273	1.5750
IC10*	27.111	4.510	21.998	38.546	1.5750
IC15*	40.667	6.765	32.998	57.820	1.5750
IC20*	54.222				
IC25*	67.778				
IC40	>100				
IC50	>100				

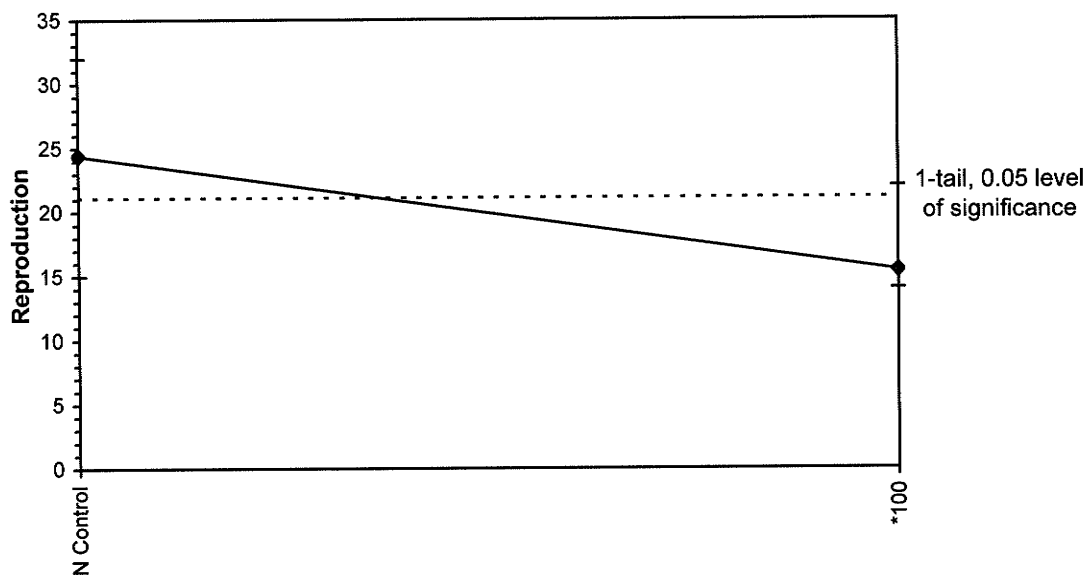
\* indicates IC estimate less than the lowest concentration



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510050	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: EFF-05-04 (10-05-0151)		

**Dose-Response Plot**



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/5/2010	Test ID: CSE0510050	Sample ID: CA00000
End Date: 5/12/2010	Lab ID: CAABC	Sample Type: EFF1-POTW
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: EFF-05-04 (10-05-0151)		

**Auxiliary Data Summary**

Conc-%	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.14	24.00	24.70	0.27	2.14	8
100		24.03	24.00	24.10	0.05	0.90	8
N Control	pH	8.16	8.10	8.30	0.09	3.71	8
100		8.26	8.00	8.60	0.17	4.97	8
N Control	DO mg/L	7.28	6.20	7.80	0.68	11.35	8
100		6.99	6.10	8.20	0.60	11.05	8
N Control	Hardness mg/L	93.00	88.00	98.00	5.35	2.49	8
100		250.00	250.00	250.00	0.00	0.00	8
N Control	Cond-umhos	381.13	366.00	410.00	15.85	1.04	8
100		2387.25	2317.00	2485.00	53.86	0.31	8
N Control	Alkalinity mg/L	64.00	60.00	68.00	4.28	3.23	8
100		250.00	250.00	250.00	0.00	0.00	8





TOXICITY TESTING • OCEANOGRAPHIC RESEARCH

### CHRONIC CERIODAPHNIA SURVIVAL AND REPRODUCTION BIOASSAY

DATE: 4 May - 10

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 5.00 ug/l

IC25 = 7.08 ug/l

IC50 = 9.17 ug/l


ENDPOINT: REPRODUCTION

NOEC = <3.00 ug/l

IC25 = 4.04 ug/l

IC50 = 6.93 ug/l

Yours very truly,

  
Thomas (Tim) Mikel  
Laboratory Director







**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/4/2010	Test ID: CER050410	Sample ID: CA0000000
End Date: 5/11/2010	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

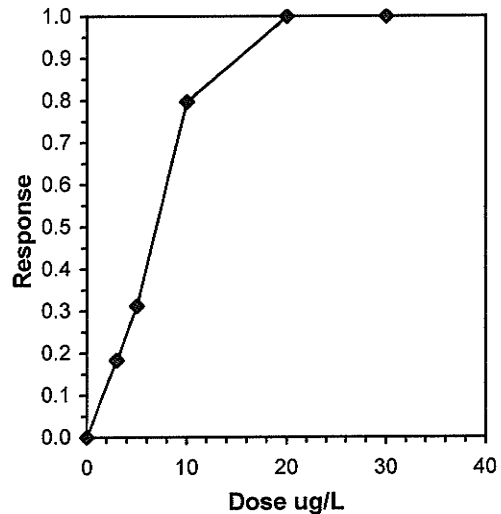
Conc-ug/L	1	2	3	4	5	6	7	8	9	10
N Control	36.000	34.000	32.000	32.000	30.000	27.000	29.000	30.000	25.000	26.000
3	27.000	27.000	23.000	23.000	22.000	32.000	29.000	21.000	22.000	20.000
5	28.000	23.000	22.000	19.000	19.000	19.000	19.000	20.000	17.000	21.000
10	12.000	4.000	1.000	17.000	1.000	0.000	0.000	0.000	12.000	14.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Conc-ug/L	Transform: Untransformed							1-Tailed			Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
N Control	30.100	1.0000	30.100	25.000	36.000	11.662	10				30.100	1.0000
*3	24.600	0.8173	24.600	20.000	32.000	15.941	10	2.687	2.137	4.374	24.600	0.8173
*5	20.700	0.6877	20.700	17.000	28.000	14.942	10	4.592	2.137	4.374	20.700	0.6877
*10	6.100	0.2027	6.100	0.000	17.000	111.842	10	11.724	2.137	4.374	6.100	0.2027
20	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000
30	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt						
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.93834	0.919	0.61957	-0.3883						
Bartlett's Test indicates equal variances (p = 0.07)	7.10562	11.3449								
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	<3	3			4.37394	0.14531	1054.36	20.9528	5.8E-13	3, 36
Treatments vs N Control										

Point	Linear Interpolation (200 Resamples)				
	ug/L	SD	95% CL		Skew
IC05*	0.8209	0.3523	0.5866	1.6841	3.4035
IC10*	1.6418	0.5382	1.1733	3.1219	1.4179
IC15*	2.4627	0.5775	1.7599	3.6879	0.6177
IC20	3.2667	0.5876	2.3465	4.6294	0.4293
IC25	4.0385	0.5851	2.9331	5.3047	0.0609
IC40	5.9041	0.3471	5.2649	6.6925	0.4136
IC50	6.9349	0.3442	6.2896	7.6754	0.4870

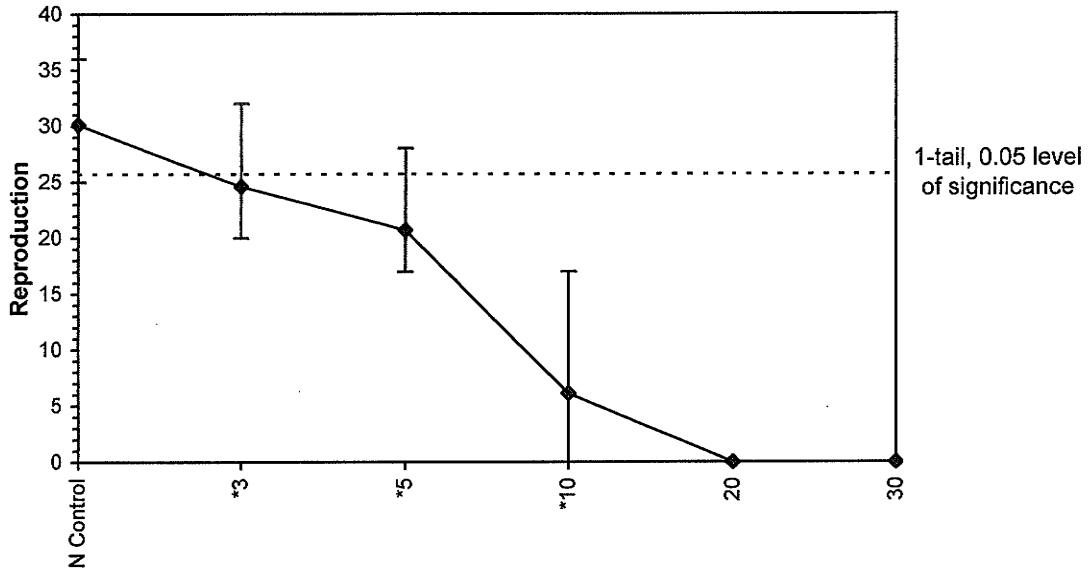
\* indicates IC estimate less than the lowest concentration



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/4/2010	Test ID: CER050410	Sample ID: CA0000000
End Date: 5/11/2010	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

**Dose-Response Plot**



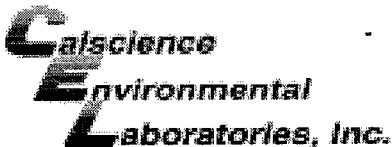
**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 5/4/2010	Test ID: CER050410	Sample ID: CA0000000
End Date: 5/11/2010	Lab ID: CAABC	Sample Type: CUCL-Copper chloride
Sample Date: 5/4/2010	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia
Comments: Standard Toxicant		

**Auxiliary Data Summary**

Conc-ug/L	Parameter	Mean	Min	Max	SD	CV%	N
N Control	Temp C	24.08	24.00	24.20	0.10	1.34	8
3		24.09	24.00	24.30	0.12	1.47	8
5		24.09	24.00	24.30	0.12	1.47	8
10		24.09	24.00	24.30	0.12	1.47	8
20		24.12	24.00	24.30	0.13	1.51	6
30		24.12	24.00	24.30	0.13	1.51	6
N Control		pH	8.15	8.10	8.30	0.09	3.73
3	8.09		7.90	8.20	0.10	3.89	8
5	8.09		8.00	8.20	0.06	3.13	8
10	8.11		8.00	8.20	0.08	3.56	8
20	8.13		8.00	8.30	0.12	4.28	6
30	8.12		8.00	8.20	0.10	3.86	6
N Control	DO mg/L		7.35	6.60	7.80	0.57	10.28
3		7.43	6.80	7.90	0.45	9.00	8
5		7.51	6.90	7.90	0.34	7.81	8
10		7.58	7.00	8.20	0.37	8.02	8
20		7.40	6.20	8.20	0.68	11.18	6
30		7.33	6.10	8.10	0.69	11.29	6
N Control		Hardness mg/L	91.88	88.00	98.00	5.08	2.45
3	0.00		0.00	0.00	0.00		0
5	0.00		0.00	0.00	0.00		0
10	0.00		0.00	0.00	0.00		0
20	0.00		0.00	0.00	0.00		0
30	68.00		68.00	68.00	0.00	0.00	6
N Control	Cond umhos		385.00	366.00	410.00	17.70	1.09
3		357.75	350.00	362.00	4.20	0.57	8
5		349.63	343.00	358.00	5.42	0.67	8
10		350.25	341.00	358.00	5.55	0.67	8
20		349.67	337.00	355.00	6.92	0.75	6
30		346.17	339.00	356.00	5.95	0.70	6
N Control		Alkalinity mg/L	63.13	60.00	68.00	4.05	3.19
3	0.00		0.00	0.00	0.00		0
5	0.00		0.00	0.00	0.00		0
10	0.00		0.00	0.00	0.00		0
20	0.00		0.00	0.00	0.00		0
30	50.00		50.00	50.00	0.00	0.00	6





WORK ORDER #: 10-05-0151

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: KINDER MORGAN

DATE: 05/04/10

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

Temperature 2.7°C + 0.5°C (CF) = 3.2°C     Blank     Sample

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

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

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

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

**CUSTODY SEALS INTACT:**

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

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: WB

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

**CONTAINER TYPE:**

**Solid:**  4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**  VOA     VOA<sub>h</sub>     VOA<sub>na2</sub>     125AGB     125AGB<sub>h</sub>     125AGB<sub>p</sub>     1AGB     1AGB<sub>na2</sub>     1AGB<sub>s</sub>

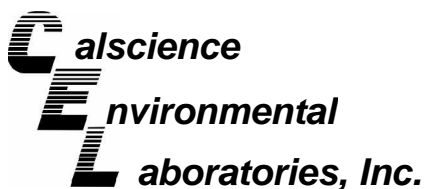
500AGB     500AGJ     500AGJ<sub>s</sub>     250AGB     250CGB     250CGB<sub>s</sub>     1PB     500PB     500PB<sub>na</sub>

250PB     250PB<sub>n</sub>     125PB     125PB<sub>z<sub>na</sub></sub>     100PJ     100PJ<sub>na2</sub>     IGA     \_\_\_\_\_     \_\_\_\_\_

**Air:**  Tedlar®     Summa®    **Other:**  \_\_\_\_\_    **Trip Blank Lot#:** \_\_\_\_\_    **Labeled/Checked by:** WB

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

**Preservative:** h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> z<sub>na</sub>: ZnAc<sub>2</sub>+NaOH f: Field-filtered    **Scanned by:** WB



## Supplemental Report 1

May 24, 2010

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

Subject: **CalScience Work Order No.: 10-05-1193**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

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

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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



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

Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-14	10-05-1193-1-E	05/14/10 12:45	Aqueous	GC 4	05/15/10	05/16/10 04:09	100515B01

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

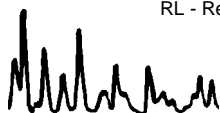
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	89	38-134				

Method Blank	099-12-247-4,199	N/A	Aqueous	GC 4	05/15/10	05/15/10 14:09	100515B01
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Comment(s): -Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	85	38-134				

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



## Analytical Report



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

Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-14	10-05-1193-1-A	05/14/10 12:45	Aqueous	GC/MS CC	05/17/10	05/17/10 13:58	100517L01

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene	ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1							
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	114	80-132				1,2-Dichloroethane-d4	110	80-141			
Toluene-d8	97	80-120				1,4-Bromofluorobenzene	87	76-120			

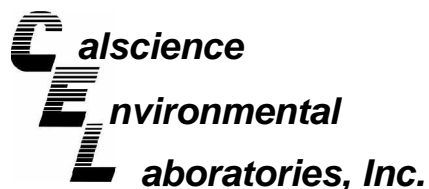
Method Blank	099-14-001-806	N/A	Aqueous	GC/MS CC	05/17/10	05/17/10 12:28	100517L01
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Comment(s): -Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene	ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1							
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	112	80-132				1,2-Dichloroethane-d4	108	80-141			
Toluene-d8	99	80-120				1,4-Bromofluorobenzene	94	76-120			

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





Analytical Report



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

Date Received: 05/14/10  
 Work Order No: 10-05-1193  
 Preparation: EPA 3020A Total  
 Method: EPA 6020  
 Units: mg/L

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-14	10-05-1193-1-G	05/14/10 12:45	Aqueous	ICP/MS 03	05/14/10	05/17/10 13:05	100514L02

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

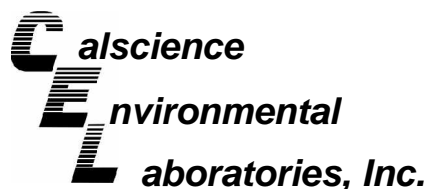
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Copper	0.00303	0.00100	0.000105	1		Selenium	0.00479	0.00100	0.000554	1	

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-2,796	N/A	Aqueous	ICP/MS 03	05/14/10	05/14/10 17:37	100514L02

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Copper	ND	0.00100	0.000105	1		Selenium	ND	0.00100	0.000554	1	

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



## Analytical Report



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

Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-14	10-05-1193-1-G	05/14/10 12:45	Aqueous	Mercury	05/17/10	05/17/10 16:56	100517L06A

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

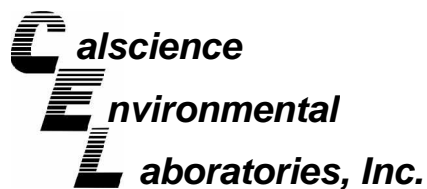
Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.0000500	0.0000177	1		mg/L

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-510-67	N/A	Aqueous	Mercury	05/17/10	05/17/10 16:33	100517L06A

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.0000500	0.0000177	1		mg/L

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



## Analytical Report



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

Date Received: 05/14/10  
Work Order No: 10-05-1193

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EFF-05-14	10-05-1193-1	05/14/10	Aqueous

Comment(s): (24) Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	0.054	0.10	0.046	1	J	mg/L	05/17/10	05/17/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.057	1		ug/L	N/A	05/15/10	EPA 7199
Solids, Total Suspended (24)	4.6	1.0	0.95	1		mg/L	05/19/10	05/19/10	SM 2540 D
Solids, Settleable (24)	ND	0.10	0.10	1		mL/L/hr	05/14/10	05/14/10	SM 2540 F
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	05/20/10	05/20/10	SM 5520 B

Method Blank	N/A	Aqueous
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Comment(s): (24) Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	05/17/10	05/17/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.057	1		ug/L	N/A	05/14/10	EPA 7199
Solids, Total Suspended (24)	ND	1.0	0.95	1		mg/L	05/19/10	05/19/10	SM 2540 D
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	05/20/10	05/20/10	SM 5520 B

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



## Quality Control - Spike/Spike Duplicate



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

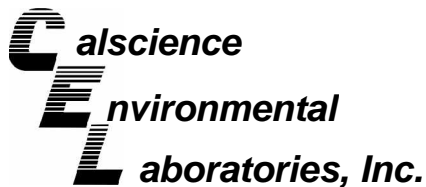
Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-1118-1	Aqueous	ICP/MS 03	05/14/10	05/14/10	100514S02

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Copper	91	91	72-108	1	0-10	
Selenium	72	70	59-125	2	0-12	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PDSD



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

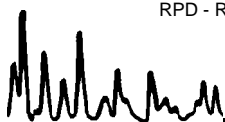
Date Received 05/14/10  
 Work Order No: 10-05-1193  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-05-1118-1	Aqueous	ICP/MS 03	05/14/10	05/14/10	100514S02

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	92	92	75-125	0	0-10	
Selenium	74	72	75-125	2	0-12	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



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

Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

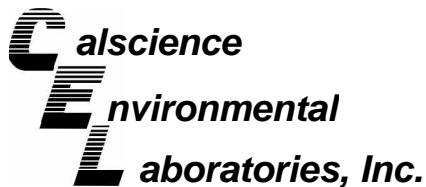
Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-0885-1	Aqueous	GC 4	05/15/10	05/15/10	100515S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	100	103	68-122	3	0-18	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



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

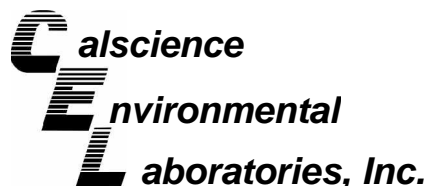
Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-1207-1	Aqueous	Mercury	05/17/10	05/17/10	100517S06

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	101	100	57-141	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

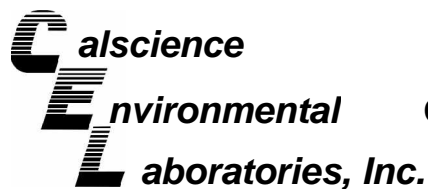
Date Received: 05/14/10  
Work Order No: 10-05-1193  
Preparation: EPA 5030B  
Method: EPA 8260B

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EFF-05-14	Aqueous	GC/MS CC	05/17/10	05/17/10	100517S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	106	105	72-120	1	0-20	
Carbon Tetrachloride	106	105	63-135	0	0-20	
Chlorobenzene	105	99	80-120	6	0-20	
1,2-Dibromoethane	103	102	80-120	1	0-20	
1,2-Dichlorobenzene	93	95	80-120	2	0-20	
1,2-Dichloroethane	111	106	80-120	5	0-20	
1,1-Dichloroethene	93	93	60-132	1	0-24	
Ethylbenzene	112	107	78-120	4	0-20	
Toluene	104	101	74-122	3	0-20	
Trichloroethene	101	103	69-120	2	0-20	
Vinyl Chloride	85	91	58-130	7	0-20	
Methyl-t-Butyl Ether (MTBE)	97	101	72-126	4	0-21	
Tert-Butyl Alcohol (TBA)	101	74	72-126	7	0-20	
Diisopropyl Ether (DIPE)	93	94	71-137	1	0-23	
Ethyl-t-Butyl Ether (ETBE)	97	98	74-128	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	102	100	76-124	2	0-20	
Ethanol	90	80	35-167	12	0-48	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

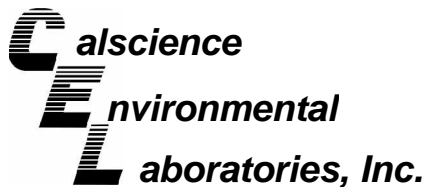
Date Received: N/A  
Work Order No: 10-05-1193

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	10-05-1172-1	05/15/10	N/A	71	71	70-130	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Duplicate



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

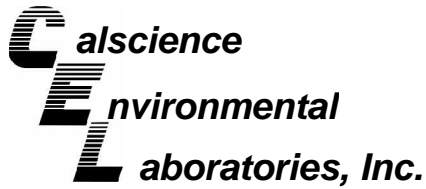
Date Received: N/A  
 Work Order No: 10-05-1193

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Suspended	SM 2540 D	10-05-1196-1	05/19/10	261	262	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-05-1193  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,796	Aqueous	ICP/MS 03	05/14/10	05/14/10	100514L02

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Copper	106	104	80-120	1	0-20	
Selenium	98	97	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

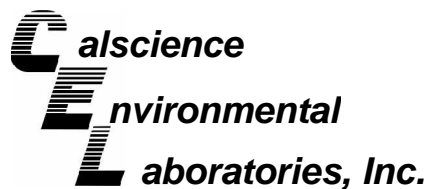
Date Received: N/A  
Work Order No: 10-05-1193  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-4,199	Aqueous	GC 4	05/15/10	05/15/10	100515B01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	103	108	78-120	5	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-05-1193  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-510-67	Aqueous	Mercury	05/17/10	05/17/10	100517L06A

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	101	97	85-121	4	0-4	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-05-1193  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-14-001-806	Aqueous	GC/MS CC	05/17/10	05/17/10	100517L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	102	105	80-122	73-129	3	0-20	
Carbon Tetrachloride	108	110	68-140	56-152	2	0-20	
Chlorobenzene	103	105	80-120	73-127	2	0-20	
1,2-Dibromoethane	102	111	80-121	73-128	8	0-20	
1,2-Dichlorobenzene	94	100	80-120	73-127	6	0-20	
1,1-Dichloroethene	93	97	72-132	62-142	4	0-25	
Ethylbenzene	111	112	80-126	72-134	1	0-20	
Toluene	103	103	80-121	73-128	1	0-20	
Trichloroethene	100	103	80-123	73-130	3	0-20	
Vinyl Chloride	88	90	67-133	56-144	2	0-20	
Methyl-t-Butyl Ether (MTBE)	103	107	75-123	67-131	4	0-20	
Tert-Butyl Alcohol (TBA)	116	112	75-123	67-131	3	0-20	
Diisopropyl Ether (DIPE)	95	100	71-131	61-141	5	0-20	
Ethyl-t-Butyl Ether (ETBE)	101	106	76-124	68-132	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	106	105	80-123	73-130	1	0-20	
Ethanol	86	91	61-139	48-152	6	0-27	

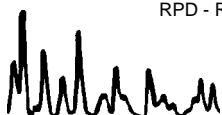
Total number of LCS compounds : 16

Total number of ME compounds : 0

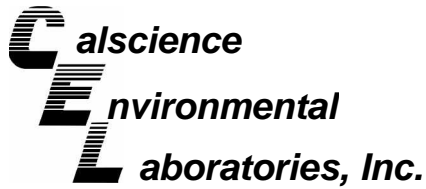
Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit







## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-05-1193

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-2,599	N/A	05/14/10	101	99	80-120	2	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,218	05/17/10	05/17/10	98	96	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

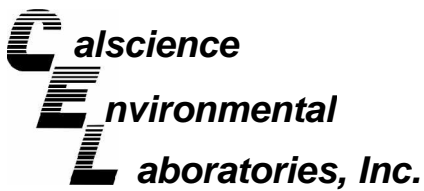
Work Order Number: 10-05-1193

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









May 24, 2010

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

Subject: **CalScience Work Order No.: 10-05-1705**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/21/2010 and analyzed in accordance with the attached chain-of-custody.

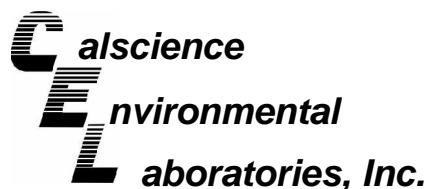
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows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

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

Sincerely,

A handwritten signature in black ink that reads 'Mike 2 for'.

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



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

Date Received: 05/21/10  
Work Order No: 10-05-1705  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-21	10-05-1705-1-A	05/21/10 14:15	Aqueous	ICP/MS 03	05/21/10	05/21/10 20:54	100521S05

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00411	0.00100	0.000554	1		mg/L

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-2,808	N/A	Aqueous	ICP/MS 03	05/21/10	05/21/10 19:27	100521S05

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	ND	0.00100	0.000554	1		mg/L

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



## Quality Control - Spike/Spike Duplicate



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

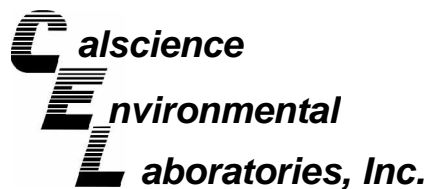
Date Received: 05/21/10  
Work Order No: 10-05-1705  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-1676-1	Aqueous	ICP/MS 03	05/21/10	05/21/10	100521L05

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Selenium	49	51	59-125	5	0-12	3

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - PDS / PDSD



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

Date Received 05/21/10  
Work Order No: 10-05-1705  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-05-1676-1	Aqueous	ICP/MS 03	05/21/10	05/21/10	100521L05

<u>Parameter</u>	<u>PDS %REC</u>	<u>PDSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	82	82	75-125	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-05-1705  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,808	Aqueous	ICP/MS 03	05/21/10	05/21/10	100521S05

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	100	100	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 10-05-1705

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





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

**CHAIN OF CUSTODY RECORD**  
 DATE: 5/21/10  
 PAGE: 1 OF 1

LABORATORY CLIENT: <b>Kinder Morgan Energy Partners, Attn: Steve Defibaugh</b>		CLIENT PROJECT NAME / NUMBER: <b>SFPP - Norwalk Site</b>		P.O. NO.:			
ADDRESS: <b>1100 Town &amp; Country Road</b>		PROJECT CONTACT: <b>Patrick Loya</b>		QUOTE NO.:			
CITY: <b>Orange, CA 92868</b>		SAMPLER(S): (SIGNATURE) 		LAB USE ONLY 05-1705			
TEL: <b>714-560-4802</b>		FAX: <b>714-560-4601</b>		E-MAIL patrick_loya@kindermorgan.com			
TURNAROUND TIME <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS		<b>REQUESTED ANALYSIS</b>					
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL / /		SPECIAL INSTRUCTIONS <b>Report to A. Padilla at Geomatrix, cc: KMEP          Direct Bill KMEP/SFPP - Steve Defibaugh          "J" flags required/Use lowest possible detection limit - all methods.</b>					
LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT. RIX	NO. OF CONT.	COMMENTS
	EFF-05-21	Discharge Tank	05/21/10	1415	WW	1	Selenium <input checked="" type="checkbox"/> Temperature* = _____ (Temp. as sampled*)
Relinquished by: (Signature)		Received by: (Signature)		Date: 5/21/10		Time: 14:55	
Relinquished by: (Signature)		Received by: (Signature)		Date:		Time:	
Relinquished by: (Signature)		Received by: (Signature)		Date:		Time:	

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: Kinder Morgan Energy

DATE: 05/21/10

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

Temperature 3.2 °C + 0.5°C (CF) = 3.7 °C     Blank     Sample

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

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

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

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

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present     N/A    Initial: JLD

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: WSC

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

**CONTAINER TYPE:**

**Solid:**  4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**  VOA     VOA<sub>h</sub>     VOA<sub>na2</sub>     125AGB     125AGB<sub>h</sub>     125AGB<sub>p</sub>     1AGB     1AGB<sub>na2</sub>     1AGB<sub>s</sub>

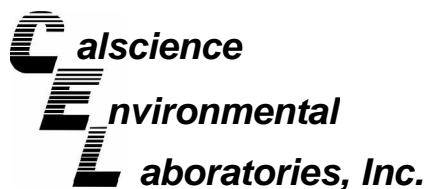
500AGB     500AGJ     500AGJ<sub>s</sub>     250AGB     250CGB     250CGB<sub>s</sub>     1PB     500PB     500PB<sub>na</sub>

250PB     250PB<sub>n</sub>     125PB     125PB<sub>z<sub>na</sub></sub>     100PJ     100PJ<sub>na2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

**Air:**     Tedlar®     Summa®    **Other:**     \_\_\_\_\_    **Trip Blank Lot#:** \_\_\_\_\_    **Labeled/Checked by:** WSC

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

**Preservative:** h: HCL    n: HNO<sub>3</sub>    na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na: NaOH    p: H<sub>3</sub>PO<sub>4</sub>    s: H<sub>2</sub>SO<sub>4</sub>    z<sub>na</sub>: ZnAc<sub>2</sub>+NaOH    f: Field-filtered    **Scanned by:** WSC



May 26, 2010

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

Subject: **CalScience Work Order No.: 10-05-1898**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/25/2010 and analyzed in accordance with the attached chain-of-custody.

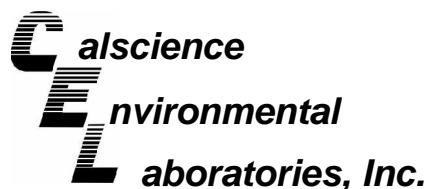
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



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

Date Received: 05/25/10  
Work Order No: 10-05-1898  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-25	10-05-1898-1-A	05/25/10 10:20	Aqueous	ICP/MS 03	05/25/10	05/25/10 17:14	100525L01

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00417	0.00100	0.000554	1		mg/L

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-2,814	N/A	Aqueous	ICP/MS 03	05/25/10	05/25/10 14:22	100525L01

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	ND	0.00100	0.000554	1		mg/L

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



## Quality Control - Spike/Spike Duplicate



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

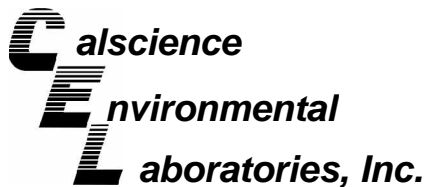
Date Received: 05/25/10  
Work Order No: 10-05-1898  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-05-1857-1	Aqueous	ICP/MS 03	05/25/10	05/25/10	100525S01

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	63	58	59-125	8	0-12	3

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PDSD



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

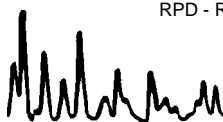
Date Received 05/25/10  
 Work Order No: 10-05-1898  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-05-1857-1	Aqueous	ICP/MS 03	05/25/10	05/25/10	100525S01

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Selenium	83	84	75-125	2	0-12	

RPD - Relative Percent Difference , CL - Control Limit







## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-05-1898  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,814	Aqueous	ICP/MS 03	05/25/10	05/25/10	100525L01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	101	101	80-120	1	0-20	

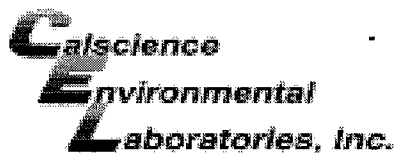
RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 10-05-1898

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







WORK ORDER #: 10-05-7898

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KINDER MORGAN

DATE: 05/25/10

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

Temperature 1.9 °C + 0.5 °C (CF) = 2.4 °C     Blank     Sample

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

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

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

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

**CUSTODY SEALS INTACT:**

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

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: PS

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

**CONTAINER TYPE:**

**Solid:**     4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**     VOA     VOAh     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBp     1AGB     1AGBna<sub>2</sub>     1AGBs

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

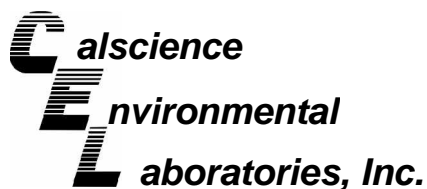
250PB     250PBn     125PB     125PBzna     100PJ     100PJna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

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

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

**Preservative:**    h: HCL    n: HNO<sub>3</sub>    na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na: NaOH    p: H<sub>3</sub>PO<sub>4</sub>    s: H<sub>2</sub>SO<sub>4</sub>    zna: ZnAc<sub>2</sub>+NaOH    f: Field-filtered    **Scanned by:** PS





June 08, 2010

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

Subject: **CalScience Work Order No.: 10-06-0493**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 6/7/2010 and analyzed in accordance with the attached chain-of-custody.

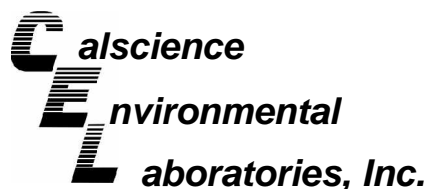
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak', written in a cursive style.

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



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

Date Received: 06/07/10  
Work Order No: 10-06-0493  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-07	10-06-0493-1-A	06/07/10 10:05	Aqueous	ICP/MS 03	06/07/10	06/07/10 19:22	100607L02

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00704	0.00100	0.000554	1		mg/L

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-2,832	N/A	Aqueous	ICP/MS 03	06/07/10	06/07/10 18:37	100607L02

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	ND	0.00100	0.000554	1		mg/L

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



## Quality Control - Spike/Spike Duplicate



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

Date Received: 06/07/10  
Work Order No: 10-06-0493  
Preparation: EPA 3020A Total  
Method: EPA 6020

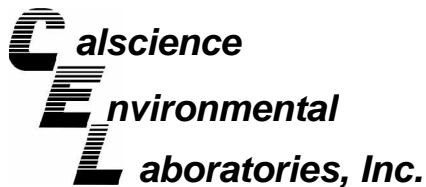
Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-0442-1	Aqueous	ICP/MS 03	06/07/10	06/07/10	100607S02

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	73	75	59-125	2	0-12	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - PDS / PDSD



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

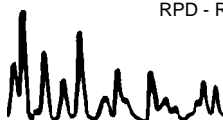
Date Received 06/07/10  
 Work Order No: 10-06-0493  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-06-0442-1	Aqueous	ICP/MS 03	06/07/10	06/07/10	100607S02

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Selenium	74	74	75-125	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-0493  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,832	Aqueous	ICP/MS 03	06/07/10	06/07/10	100607L02

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	101	100	80-120	1	0-20	

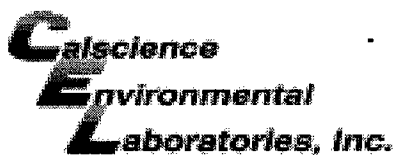
RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 10-06-0493

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







WORK ORDER #: 10-06-0493

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: KMEP/Geomatrix

DATE: 06/07/10

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

Temperature 2.6 °C + 0.5°C (CF) = 3.1 °C  Blank  Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature:  Air  Filter  Metals Only  PCBs Only

Initial: DL

**CUSTODY SEALS INTACT:**

- Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A
- Sample  \_\_\_\_\_  No (Not Intact)  Not Present

Initial: DL  
Initial: DL

**SAMPLE CONDITION:**

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

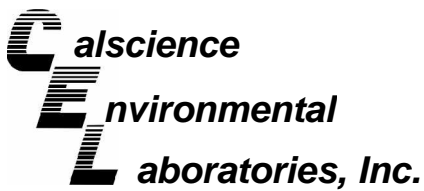
**CONTAINER TYPE:**

- Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores®  TerraCores®  \_\_\_\_\_
- Water:**  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs
- 500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna
- 250PB  250PBn  125PB  125PBzanna  100PJ  100PJna<sub>2</sub>  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa® **Other:**  \_\_\_\_\_ **Trip Blank Lot#:** \_\_\_\_\_ **Labeled/Checked by:** DL

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

**Preservative:** h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> zanna: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** DL



June 10, 2010

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

Subject: **CalScience Work Order No.: 10-06-0752**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 06/09/2010 and analyzed in accordance with the attached chain-of-custody.

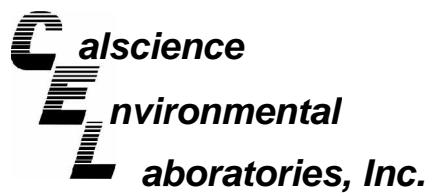
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager



## Analytical Report



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

Date Received: 06/09/10  
Work Order No: 10-06-0752  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-09	10-06-0752-1-A	06/09/10 14:30	Aqueous	ICP/MS 03	06/09/10	06/09/10 21:07	100609L01

Parameter	Result	RL	DF	Qual	Units
Selenium	0.00467	0.00100	1		mg/L

Method Blank	096-06-003-2,837	N/A	Aqueous	ICP/MS 03	06/09/10	06/09/10 13:06	100609L01
--------------	------------------	-----	---------	-----------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Units
Selenium	ND	0.00100	1		mg/L

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



## Quality Control - Spike/Spike Duplicate



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

Date Received: 06/09/10  
Work Order No: 10-06-0752  
Preparation: EPA 3020A Total  
Method: EPA 6020

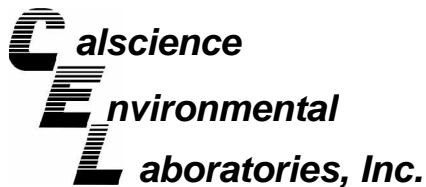
Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-0635-1	Aqueous	ICP/MS 03	06/09/10	06/09/10	100609S01

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	67	69	59-125	4	0-12	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - PDS / PDSD



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

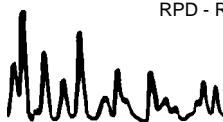
Date Received 06/09/10  
 Work Order No: 10-06-0752  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-06-0635-1	Aqueous	ICP/MS 03	06/09/10	06/09/10	100609S01

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Selenium	91	89	75-125	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-0752  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,837	Aqueous	ICP/MS 03	06/09/10	06/09/10	100609L01

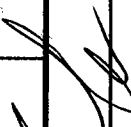
<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	101	103	80-120	3	0-20	

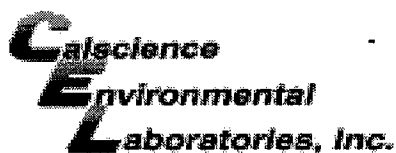
RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 10-06-0752

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



LABORATORY CLIENT: <b>Kinder Morgan Energy Partners, Attn: Steve Defibaugh</b>				CLIENT PROJECT NAME / NUMBER: <b>SFPP - Norwalk Site</b>									
ADDRESS: <b>1100 Town &amp; Country Road</b>				PROJECT CONTACT: <b>Patrick Loya</b>									
CITY: <b>Orange, CA 92868</b>				P.O. NO.:									
TEL: <b>714-560-4802</b>		FAX: <b>714-560-4601</b>		E-MAIL: <a href="mailto:patrick_loya@kindermorgan.com">patrick_loya@kindermorgan.com</a>		QUOTE NO.:							
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY):				LAB USE ONLY <table border="1"> <tr> <td>0</td> <td>6</td> <td>0</td> <td>7</td> <td>5</td> <td>2</td> </tr> </table>				0	6	0	7	5	2
0	6	0	7	5	2								
<input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL <u>  </u> / <u>  </u> / <u>  </u> SPECIAL INSTRUCTIONS: <b>Report to A. Padilla at Geomatrix, cc: KMEP                  Direct Bill KMEP/SFPP - Steve Defibaugh                  "J" flags required/Use lowest possible detection limit - all methods.</b>				<b>REQUESTED ANALYSIS</b>  Selenium <input checked="" type="checkbox"/>									
LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Comments						
	EFF-06-09	Discharge Tank	06-09-10	1430	WW	1	Temperature* = _____  (Temp. as sampled*)						
Received by: (Signature)  <i>car</i>							Date: <u>6/09/10</u> Time: <u>1510</u>						
Received by: (Signature) _____							Date: _____ Time: _____						
Received by: (Signature) _____							Date: _____ Time: _____						
<b>Revised: 07/23/09</b>													



WORK ORDER #: 10-06-0752

**SAMPLE RECEIPT FORM**

Cooler 1 of 1

CLIENT: KMEP

DATE: 06/09/10

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

Temperature 5.1 °C + 0.5°C (CF) = 5.6 °C     Blank     Sample

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

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

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

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

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present     N/A    Initial: ML

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: YL

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

**CONTAINER TYPE:**

**Solid:**  4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**  VOA     VOAh     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBp     1AGB     1AGBna<sub>2</sub>     1AGBs

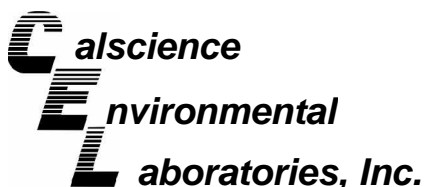
500AGB     500AGJ     500AGJs     250AGB     250CGB     250CGBs     1PB     500PB     500PBna

250PB     250PBn     125PB     125PBzanna     100PJ     100PJna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

**Air:**  Tedlar®     Summa®    **Other:**  \_\_\_\_\_    **Trip Blank Lot#:** \_\_\_\_\_    **Labeled/Checked by:** YL

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

**Preservative:** h: HCL    n: HNO<sub>3</sub>    na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na: NaOH    p: H<sub>3</sub>PO<sub>4</sub>    s: H<sub>2</sub>SO<sub>4</sub>    zanna: ZnAc<sub>2</sub>+NaOH    f: Field-filtered    **Scanned by:** YL



June 14, 2010

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

Subject: **CalScience Work Order No.: 10-06-1029**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 06/11/2010 and analyzed in accordance with the attached chain-of-custody.

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

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

Sincerely,

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

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager

## Analytical Report



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

Date Received: 06/11/10  
Work Order No: 10-06-1029  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-11	10-06-1029-1-A	06/11/10 11:45	Aqueous	ICP/MS 03	06/11/10	06/11/10 17:27	100611L03

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00615	0.00100	0.000554	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-SF-14	10-06-1029-2-A	06/11/10 11:50	Aqueous	ICP/MS 03	06/11/10	06/11/10 17:41	100611L03

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00206	0.00100	0.000554	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02	10-06-1029-3-A	06/11/10 11:50	Aqueous	ICP/MS 03	06/11/10	06/11/10 17:44	100611L03

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00559	0.00100	0.000554	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-0-11	10-06-1029-4-A	06/11/10 11:50	Aqueous	ICP/MS 03	06/11/10	06/11/10 17:48	100611L03

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00400	0.00100	0.000554	1		mg/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-0-23	10-06-1029-5-A	06/11/10 11:50	Aqueous	ICP/MS 03	06/11/10	06/11/10 17:51	100611L03

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

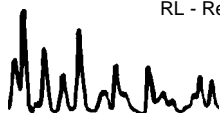
Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00558	0.00100	0.000554	1		mg/L

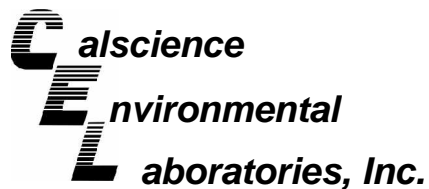
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GMW-25	10-06-1029-6-A	06/11/10 11:50	Aqueous	ICP/MS 03	06/11/10	06/11/10 17:55	100611L03

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

Parameter	Result	RL	MDL	DF	Qual	Units
Selenium	0.00571	0.00100	0.000554	1		mg/L

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





## Analytical Report



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

Date Received: 06/11/10  
Work Order No: 10-06-1029  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	096-06-003-2,844	N/A	Aqueous	ICP/MS 03	06/11/10	06/11/10 16:58	100611L03

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

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Selenium	ND	0.00100	0.000554	1		mg/L

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





## Quality Control - Spike/Spike Duplicate



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

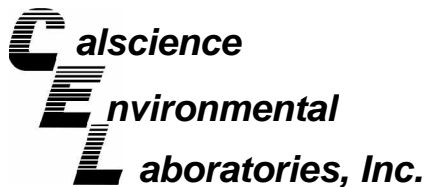
Date Received: 06/11/10  
Work Order No: 10-06-1029  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EFF-06-11	Aqueous	ICP/MS 03	06/11/10	06/11/10	100611S03

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	78	78	59-125	0	0-12	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PDSD



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

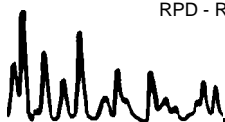
Date Received 06/11/10  
 Work Order No: 10-06-1029  
 Preparation: EPA 3020A Total  
 Method: EPA 6020

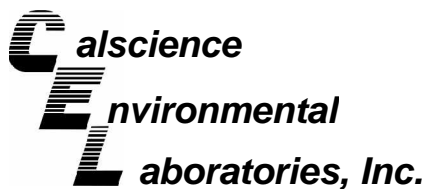
Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
EFF-06-11	Aqueous	ICP/MS 03	06/11/10	06/11/10	100611S03

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Selenium	82	82	75-125	0	0-12	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-1029  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,844	Aqueous	ICP/MS 03	06/11/10	06/11/10	100611L03

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Selenium	101	98	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 10-06-1029

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





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

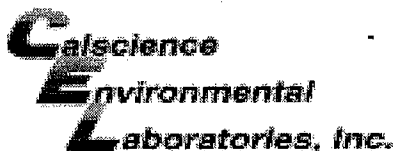
# CHAIN OF CUSTODY RECORD

DATE: 06-11-10

PAGE: 1 OF 1

LABORATORY CLIENT: <b>Kinder Morgan Energy Partners, Attn: Steve Defibaugh</b>		CLIENT PROJECT NAME / NUMBER: <b>SFPP - Norwalk Site</b>						
ADDRESS: <b>1100 Town &amp; Country Road</b>		PROJECT CONTACT: <b>James Dye</b>						
CITY: <b>Orange, CA 92868</b>		P.O. NO.:						
TEL: <b>714-560-4802</b>	FAX: <b>714-560-4601</b>	QUOTE NO.:						
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS		LAB USE ONLY 06-11-10						
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL ___ / ___ / ___								
SPECIAL INSTRUCTIONS <b>Report to A. Padilla at Geomatrix, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195 "J" flags required/Use lowest possible detection limit - all methods.</b>								
<b>REQUESTED ANALYSIS</b>								
LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	TIME	MAT. RIX	NO. OF CONT.	Comments	
	1 EFF-06-11	Discharge Tank	06-11-10	1145	WW	1	Temperature* = _____	
	2 MW-SF-14	WELL HEAD		1150		1	(Temp. as sampled*)	
	3 MW-02			1150		1		
	4 GMW-0-11			1150		1		
	5 GMW-0-23			1150		1		
	6 GMW-25			1150		1		
Received by: (Signature) <i>[Signature]</i>							Date: 6/11/10	Time: 1343
Relinquished by: (Signature) <i>[Signature]</i>							Date:	Time:
Relinquished by: (Signature)							Date:	Time:

Revised: 07/23/09



WORK ORDER #: 10-06-1029

SAMPLE RECEIPT FORM

Cooler 1 of 1

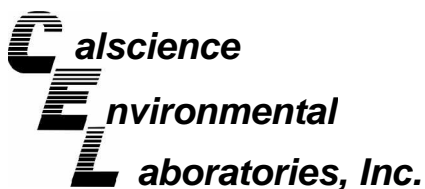
CLIENT: KMEP

DATE: 06/11/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)
Temperature 2.8°C + 0.5°C (CF) = 3.3°C
Sample(s) outside temperature criteria (PM/APM contacted by: )
Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
Received at ambient temperature, placed on ice for transport by Courier.
Ambient Temperature: Air Filter Metals Only PCBs Only
Initial: PL

CUSTODY SEALS INTACT:
Cooler No (Not Intact) Not Present N/A
Sample No (Not Intact) Not Present
Initial: PL

SAMPLE CONDITION:
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...
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours...
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...
CONTAINER TYPE:
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores TerraCores
Water: VOA VOA h VOAn2 125AGB 125AGB h 125AGB p 1AGB 1AGBna2 1AGBs
500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna
250PB 250PBn 125PB 125PBz nna 100PJ 100PJna2
Air: Tedlar Summa Other: Trip Blank Lot#: Labeled/Checked by: PL
Reviewed by: PL
Scanned by: PL



## Supplemental Report 1

July 02, 2010

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

Subject: **CalScience Work Order No.: 10-06-2058**  
**Client Reference: SFPP - Norwalk Site**

Dear Client:

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak', written in a cursive style.

CalScience Environmental  
Laboratories, Inc.  
Stephen Nowak  
Project Manager

## Analytical Report



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

Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-25	10-06-2058-1-D	06/25/10 11:10	Aqueous	GC 18	06/30/10	06/30/10 15:54	100630B01

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

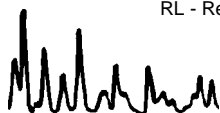
Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	90	38-134				

Method Blank	099-12-247-4,317	N/A	Aqueous	GC 18	06/30/10	06/30/10 10:14	100630B01
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Comment(s): -Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		Qual	
1,4-Bromofluorobenzene	89	38-134				

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





## Analytical Report



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

Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 5030B  
Method: EPA 8260B  
Units: ug/L

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-25	10-06-2058-1-A	06/25/10 11:10	Aqueous	GC/MS S	06/25/10	06/26/10 07:28	100625L03

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene	ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1							
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	126	80-126				1,2-Dichloroethane-d4	125	80-131			
Toluene-d8	99	80-120				1,4-Bromofluorobenzene	83	80-120			

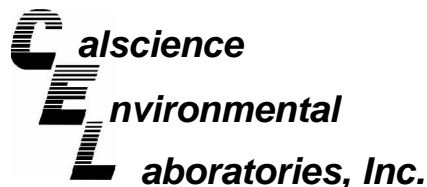
Method Blank	099-14-001-1,256	N/A	Aqueous	GC/MS S	06/25/10	06/26/10 01:51	100625L03
--------------	------------------	-----	---------	---------	----------	-------------------	-----------

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

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene	ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene	ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene	ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1							
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>			<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		
Dibromofluoromethane	106	80-126				1,2-Dichloroethane-d4	101	80-131			
Toluene-d8	98	80-120				1,4-Bromofluorobenzene	92	80-120			

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





Analytical Report



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

Date Received: 06/25/10  
 Work Order No: 10-06-2058  
 Preparation: EPA 3020A Total  
 Method: EPA 6020  
 Units: mg/L

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-25	10-06-2058-1-G	06/25/10 11:10	Aqueous	ICP/MS 03	06/25/10	06/25/10 21:22	100625L01

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

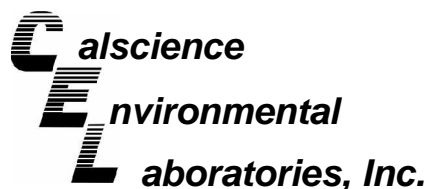
Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Copper	0.00103	0.00100	0.000105	1		Selenium	0.00386	0.00100	0.000554	1	

Method Blank	096-06-003-2,873	N/A	Aqueous	ICP/MS 03	06/25/10	06/25/10 18:03	100625L01
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Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Copper	ND	0.00100	0.000105	1		Selenium	ND	0.00100	0.000554	1	

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



## Analytical Report



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

Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-25	10-06-2058-1-G	06/25/10 11:10	Aqueous	Mercury	06/25/10	06/28/10 12:06	100625L05

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

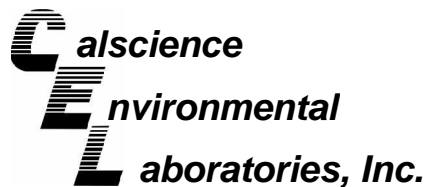
Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.0000500	0.0000177	1		mg/L

Method Blank	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-510-71	N/A	Aqueous	Mercury	06/25/10	06/25/10 17:32	100625L05

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

Parameter	Result	RL	MDL	DF	Qual	Units
Mercury	ND	0.0000500	0.0000177	1		mg/L

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



## Analytical Report



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

Date Received: 06/25/10  
Work Order No: 10-06-2058

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EFF-06-25	10-06-2058-1	06/25/10	Aqueous

Comment(s): (24) Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	0.074	0.10	0.046	1	J	mg/L	07/01/10	07/01/10	EPA 420.1
Chromium, Hexavalent (24)	1.1	1.0	0.057	1		ug/L	N/A	06/25/10	EPA 7199
Solids, Total Suspended (24)	1.1	1.0	0.95	1		mg/L	06/30/10	06/30/10	SM 2540 D
Solids, Settleable (24)	ND	0.10	0.10	1		mL/L/hr	06/25/10	06/25/10	SM 2540 F
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	06/28/10	06/28/10	SM 5520 B

Method Blank	N/A	Aqueous
--------------	-----	---------

Comment(s): (24) Results were evaluated to the MDL, concentrations  $\geq$  to the MDL but  $<$  RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	07/01/10	07/01/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.057	1		ug/L	N/A	06/25/10	EPA 7199
Solids, Total Suspended (24)	ND	1.0	0.95	1		mg/L	06/30/10	06/30/10	SM 2540 D
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	06/28/10	06/28/10	SM 5520 B

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



## Quality Control - Spike/Spike Duplicate



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

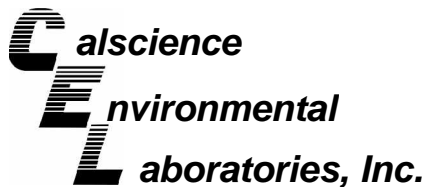
Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 3005A Total  
Method: EPA 200.8

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-2044-1	Aqueous	ICP/MS 03	06/25/10	06/25/10	100625S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	92	90	80-120	2	0-20	
Selenium	81	80	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - PDS / PDSD



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

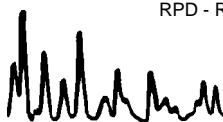
Date Received 06/25/10  
 Work Order No: 10-06-2058  
 Preparation: EPA 3005A Total  
 Method: EPA 200.8

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-06-2044-1	Aqueous	ICP/MS 03	06/25/10	06/25/10	100625S01

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper	92	91	75-125	1	0-20	
Selenium	82	80	75-125	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



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

Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-2234-1	Aqueous	GC 18	06/30/10	06/30/10	100630S01

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

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 7470A Total  
Method: EPA 7470A

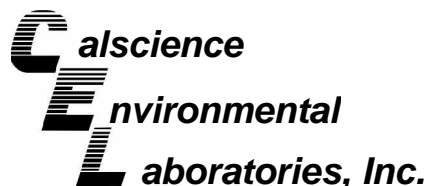
Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-06-2010-2	Aqueous	Mercury	06/25/10	06/25/10	100625S05

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	97	98	57-141	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Spike/Spike Duplicate



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

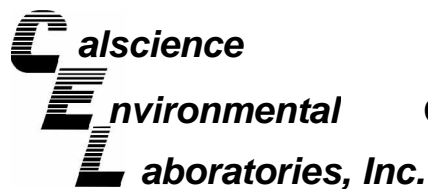
Date Received: 06/25/10  
Work Order No: 10-06-2058  
Preparation: EPA 5030B  
Method: EPA 8260B

Project SFPP - Norwalk Site

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

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

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Spike/Spike Duplicate



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

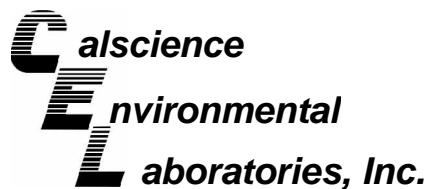
Date Received: N/A  
Work Order No: 10-06-2058

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	10-06-2010-3	06/25/10	N/A	102	99	70-130	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Duplicate



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

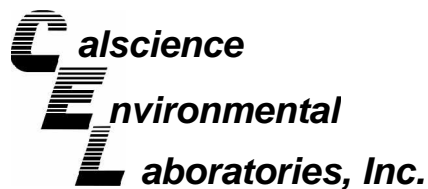
Date Received: N/A  
Work Order No: 10-06-2058

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total Suspended	SM 2540 D	10-06-1903-1	06/30/10	119	121	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

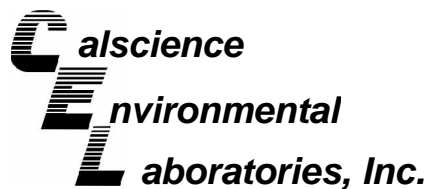
Date Received: N/A  
Work Order No: 10-06-2058  
Preparation: EPA 3020A Total  
Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-2,873	Aqueous	ICP/MS 03	06/25/10	06/25/10	100625L01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Copper	105	105	80-120	0	0-20	
Selenium	97	99	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-2058  
Preparation: EPA 5030B  
Method: EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-247-4,317	Aqueous	GC 18	06/30/10	06/30/10	100630B01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
TPH as Gasoline	96	96	78-120	0	0-10	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-2058  
Preparation: EPA 7470A Total  
Method: EPA 7470A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-510-71	Aqueous	Mercury	06/25/10	06/25/10	100625L05

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	98	97	85-121	1	0-4	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-2058  
Preparation: EPA 5030B  
Method: EPA 8260B

Project: SFPP - Norwalk Site

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

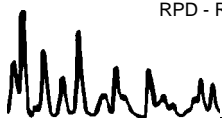
Total number of LCS compounds : 17

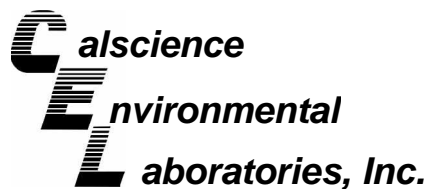
Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - LCS/LCS Duplicate



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

Date Received: N/A  
Work Order No: 10-06-2058

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-2,628	N/A	06/25/10	100	101	80-120	1	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,236	07/01/10	07/01/10	98	98	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 10-06-2058

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



**CHAIN OF CUSTODY RECORD**

DATE: 06/25/10

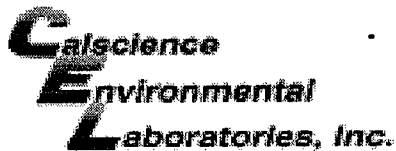
PAGE: 1 OF 1

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

**CE** science  
 Environmental  
 Laboratories, Inc.

LABORATORY CLIENT: <b>Kinder Morgan Energy Partners, Attn: Steve Defibaugh</b>		CLIENT PROJECT NAME / NUMBER: <b>SFPP - Norwalk Site</b>					
ADDRESS: <b>1100 Town &amp; Country Road</b>		QUOTE NO.:					
CITY: <b>Orange, CA 92868</b>		LAB USE ONLY 06-2058					
TEL: <b>714-560-4802</b>	FAX: <b>714-560-4601</b>	P.O. NO.:					
TURNAROUND TIME <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) <input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL / / SPECIAL INSTRUCTIONS <b>Report to A. Padilla at Geomatrix, cc: KMEP</b> <b>Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195</b> <b>"J" flags required/Use lowest possible detection limit - all methods.</b>		PROJECT CONTACT: <b>James Dye</b> SAMPLER(S): (SIGNATURE)					
E-MAIL james.dye@kindermorgan.com		REQUESTED ANALYSIS TPH-g (C5-C14 Only) (8015M) X MBE:BTEX;1,1-DCA;1,2-DCA;MEK(8260B) X Settleable Solids (160.5) X Total Suspended Solids (160.2) X Phenolics (420.1) X Hg,Cr(VI),Cu(1669,7199,6020) X Selenium on 24 HR TAT X					
LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	TIME	MAT- RIX	NO OF CONT.	Comments
	EFF-06-25	Effluent	6/25/10	1110	WW	12	Temperature* = <u>79.8</u> Temperature* = <u>79.8</u> (Temp. as sampled*)  Monthly
Relinquished by: (Signature)		Received by: (Signature)		Date: <u>6/25/10</u>	Time: <u>12:00</u>		
Relinquished by: (Signature)		Received by: (Signature)		Date: <u>6/25/10</u>	Time: <u>14:23</u>		
Relinquished by: (Signature)		Received by: (Signature)		Date:	Time:		

Revised: 07/23/09



WORK ORDER #: 10-06-2058

# SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: KMEP

DATE: 06/25/10

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

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

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

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

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

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

**CUSTODY SEALS INTACT:**

Cooler     \_\_\_\_\_     No (Not Intact)     Not Present     N/A    Initial: DL

Sample     \_\_\_\_\_     No (Not Intact)     Not Present    Initial: DL

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

**CONTAINER TYPE:**

**Solid:**     4ozCGJ     8ozCGJ     16ozCGJ     Sleeve (\_\_\_\_)     EnCores®     TerraCores®     \_\_\_\_\_

**Water:**     VOA     VOAh     VOAna<sub>2</sub>     125AGB     125AGBh     125AGBp     1AGB     1AGBna<sub>2</sub>     1AGBs

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

250PB<sub>n</sub>     250PBn     125PB     125PBz<sub>na</sub>     100PJ     100PJna<sub>2</sub>     \_\_\_\_\_     \_\_\_\_\_     \_\_\_\_\_

**Air:**     Tedlar®     Summa®    **Other:**     \_\_\_\_\_    **Trip Blank Lot#:** \_\_\_\_\_    **Labeled/Checked by:** DL

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

**Preservative:** h: HCL    n: HNO<sub>3</sub>    na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>    na: NaOH    p: H<sub>3</sub>PO<sub>4</sub>    s: H<sub>2</sub>SO<sub>4</sub>    z<sub>na</sub>: ZnAc<sub>2</sub>+NaOH    f: Field-filtered    **Scanned by:** DL