

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.

tishe Wf	
(signat	ture)
Stephen T. Defibaugh (printed n	ame)
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

AMEC Geomatrix, Inc. 510 Superior Avenue, Suite 200 Newport Beach, CA USA 92663-3627 Tel (949) 642-0245 Fax (949) 642-4474 www.amecgeomatrixinc.com





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 11to June 15, 2010, to evaluate selenium concentrations in the extraction wells. During this shutdown period,



groundwater samples were collected from TFE and GWE wells and analyzed for selenium. Based on the results of these analyses, the following wells were selected for pumping when the system was restarted on June 15, 2010: 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 [µg/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.



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.



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

Shiow-Whei Chou, PE Senior Engineer

Shrow Whit Chan

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



EFFLUENT FLOW RATE, pH, AND TEMPERATURE MEASUREMENTS¹

TABLE 1

SFPP, L.P. Norwalk, California

Date	Average Flow Rate (gallons per day)	рН	Temperature (Deg F)
Discharge Limits			
Instantaneous Minimum	NE	6.5	NE
Instantaneous Maximum	NE 450.000	8.5	86
Maximum Daily	150,000	NE	NE
Results			
04/07/10	12,459	no discharge ³	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

							Dischar	ge Limits ²				Sample Date	e and Results			
	Sampling	Analysis					Monthly	Daily				•				
Analyte	Frequency	Method	Units	MDL	RL	ML^1	Average	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	 ³					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 ⁴						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

Analysia	Analysis Method	TRE Trigger ¹	Units ²	March 3, 2010 M-001 (Effluent)	May 5, 2010 M-001 (Effluent)	May 5, 2010 R-001 (50 ft. upstream)	May 5, 2010 R-002 (50 ft. downstream)
Analyte	Wethou	ingger	Units	W-001 (Emident)	W-001 (Emident)	K-001 (50 It. upstream)	R-002 (50 It. 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:

Abbreviations:

TUc = Chronic Toxicity Unit, where TUc = 100/NOEC

NPDES = National Pollutant Discharge Evaluation System.

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^{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 Plandated March 3, 2006 will be implemented.

^{2. &}gt;1.0 = toxicity detected above 1 toxicity unit.

^{3. &}quot;--" = not measured or not analyzed.



APPENDIX A

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,

Calscience Environmental Laboratories, Inc.

Stephen Nowak

Project Manager

CA-ELAP ID: 1230 NELAP ID: 03220CA CSDLAC ID: 10109

SCAQMD ID: 93LA0830

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: 04/20/10 10-04-1427 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

110,000. 0111 14	or want one							•	<u>ago 1 01 1</u>
Client Sample Number		Lab Sam Numbe	•	ate/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20		10-04-1	427-1-A 0	4/20/10 12:00	Aqueous	ICP/MS 03	04/20/10	04/20/10 19:55	100420L01
Comment(s): -Results w	ere evaluated to the MDL,	concentrations	>= to the MD	L but < RL	_, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Lead	ND	0.00100	0.000170) 1			mg/L		
Method Blank		096-06-	-003-2,751	N/A	Aqueous	ICP/MS 03	04/20/10	04/20/10 16:28	100420L01
Comment(s): -Results w	ere evaluated to the MDL,	concentrations	>= to the MD	L but < RL	_, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u> </u>	<u>DF</u>	Qual	<u>Units</u>		
l ead	ND	0.00100	0.000170) 1			ma/l		

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





AMEC Geomatrix, Inc.

510 Superior Avenue

Work Order No:

10-04-1427

Suite 200

Preparation:

N/A

Newport Beach, CA 92663-3627

Method:

04/20/10

10-04-1427

N/A

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 >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter

Result

Result

Result

Result

Result

O.42

O.050

O.044

NTU

All-Rep

DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 04/20/10 10-04-1427 EPA 3020A Total 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	100420\$01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Lead	99	98	79-121	1	0-10	

Muha_

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 Work Order No: Preparation: Method: 04/20/10 10-04-1427 EPA 3020A Total 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
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	RPD RPD	CL Qualifiers
Lead	97	96	75-125	2 0-10)

MANA_



Quality Control - Duplicate



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method:

04/20/10 10-04-1427 N/A 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>	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Turbidity	0.33	0.34	3	0-25	





Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: N/A 10-04-1427 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepare		ate yzed	LCS/LCSD Bate Number	ch .
096-06-003-2,751	Aqueous	ICP/MS 03	04/20/1	10 04/20	0/10	100420L01	
<u>Parameter</u>	LCS %	6REC LCS	D %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Lead	98	!	98	80-120	0	0-20	

Mullim.

RPD - Relative Percent Difference , CL - Control Limit



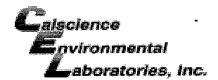
Glossary of Terms and Qualifiers



Work Order Number: 10-04-1427

Qualifier	<u>Definition</u>
•	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
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.

- alscience	7440 LINCOLN WAY										CHA	N OF CUS	CHAIN OF CUSTODY RECORD	ORD
nvironmental	GARDEN GROVE, CA 92841-1432	41-1432									DATE:	CP4	40219213	1-20-1
Laboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	: (714) 894-	7501								PAGE	_	0F	
LABORATORY CLIENT:					F	CLIENT PROJECT NAME / NUMBER	ECT NAME	NUMBER				P.O. NO.:	::o	Γ
Kinder Morgan Energy P	artners, Attn: Steve D	efibaugh				SEPP - Norwalk Site	Norwa	k Sito						
1100 Town & Country Road	pad				<u>.1</u> -	PROJECT CONTACT	NTACT:					QUOTE NO.	E NO.:	
Orry:						James Dye	Dye					19.8 7 2	A INO Es	
TEL: 714-560-4802	FAX: 714-560-4601		E-MAIL james dye@kindermorgan.com	ndermorgan.	1	. /	1/3					0	<u> </u>	지자
TURNAROUND TIME	48HR	5 DAYS	AYS	T 10 DAYS	\ \sigma_{\sigma}				8	QUEST	ED AN	REQUESTED ANALYSIS	X (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	I SST		1				F	<u> </u>		L				
SPECIAL INSTRUCTIONS	☐ ARCHIVE SAMPLES UNTIL	SUNTIL	_								•			
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.	Geomatrix, cc: KMEP - Steve Defibaugh-ref lowest possible detect	f. AFE# 81195 stion limit - all	1195 t - all me	thods										
		SAME	SAMPLING		NO. OF CONT.									
SAMPLE ID	LOCATION/ DESCRIPTION	DATE	TIME	MAT-	C 1137 14:P14	5 MS) (5M S d (EPA 6020		·						
USE ONLY													Comments	
EFF-04-30	Effluent	2/26/2010	aoଠ		2	×						Temperature*	ure* =	
										-				
												(Ten	(Temp. as sampled*)	d*)
												Quarterly		
# 1														
Relinquished by: (Signeture)	Ì			Received by: (Signature)	by: (Sign	<u> </u>	anna	から		ريم		Date: PO	10 Time:	2/2
Relinquisted by: (Signature)				Received by: (Signature)	by: (Sigr	-						Date	Time:	
Relinquished by: (Signature)				Received by: (Signature)	by: (Sign	ature)						Date:	Time:	
Revised: 07/23/09														



WORK ORDER #: 10-04- □ □ □ □

SAMPLE RECEIPT FORM

Cooler <u>/</u> of <u>/</u>

CLIENT: KMEP	DATE:	04/20/	10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not from the second secon	Blank e day of sampl Courier.	□ Sample ing. Initial: _	
CUSTODY SEALS INTACT: □ Cooler □ □ No (Not Intact) ✓ Not Prese □ Sample □ □ No (Not Intact) ✓ Not Prese		Initial: Initial:	p.C
SAMPLE CONDITION: Chain-Of-Custody (COC) document(s) received with samples	Yes	No	N/A
COC document(s) received complete			
☐ Collection date/time, matrix, and/or # of containers logged in based on sample lab		_	
	c i5.		
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished. Sampler's name indicated on COC			П
Sample container label(s) consistent with COC		□	
Sample container(s) intact and good condition	_		П
Proper containers and sufficient volume for analyses requested			
Analyses received within holding time			
Proper preservation noted on COC or sample container	_		
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	🗆		otag
Tedlar bag(s) free of condensation			
CONTAINER TYPE:			
Solid: 40zCGJ	ores [®] □Terra	Cores® □	
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGB	•		
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CG	-		
□250PB ☑250PBn ☑125PB □125PB znna □100PJ □100PJ na₂ □			
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#:			pil
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag			
Proceductives by HCL by HNO. by No.S.O. by No.CH by H.DO. of H.S.O. approx 75.06 +No.C	LL fo Eigld filtered	Scanned by	n.L

SOP T100_090 (01/29/10)



WORK ORDER #: **10-04-** ☐ ④ □ 丑

SAMPLE ANOMALY FORM

SAMPLE	ES - CO	NTAIN	ERS & L	ABELS:			Comme	ents:		
□ Sample(s)/Container(s) NOT RECEIVED but listed on COC □ Sample(s)/Container(s) received but NOT LISTED on COC □ Holding time expired – list sample ID(s) and test □ Insufficient quantities for analysis – list test □ Improper container(s) used – list test □ Improper preservative used – list test □ No preservative noted on COC or label – list test & notify lated and labels illegible – note test/container type ☑ Sample label(s) do not match COC – Note in comments □ Sample ID ☑ Date and/or Time Collected □ Project Information □ # of Container(s) □ Analysis □ Sample container(s) compromised – Note in comments □ Water present in sample container □ Broken □ Without Label(s) □ Air sample container(s) compromised – Note in comments □ Flat □ Very low in volume □ Leaking (Not transferred - duplicate bag submitted)								ents: Collection of the contract of the contra	ion date per 20/10	(absel
					_	-				
				o Calscienc					· .	
	Leaking	g (transf	erred int	o Client's Te	edlar [®] Ba	ag*)				
☐ Othe	r:									
HEADS	PACE -	Contai	iners wit	th Bubble >	6mm o	or ¼ inch:				
Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis	
Commen	ts:									
*Transferr	ed at Clie	ent's requ	est.				lr	nitial / Da	te: b.L 04	1/20/10





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

Calscience Environmental Laboratories, Inc.

Stephen Nowak Project Manager

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method:

04/20/10 10-04-1426 **EPA 5030B** EPA 8015B (M)

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number		Lab Samp Number	le	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-04-20		10-04-14	26-2-F	04/20/10 12:15	Aqueous	GC 25	04/23/10	04/24/10 02:46	100423B01
Comment(s): -Results were e	valuated to the MDL	, concentrations >	= to the N	∕IDL but < RI	_, if found, ar	e qualified with	n a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	REC (%)	Control Limits	<u>MDL</u>			<u>Qual</u>			
1,4-Bromofluorobenzene	84	38-134							
Method Blank		099-12-2	47-4,128	N/A	Aqueous	GC 25	04/23/10	04/23/10 12:46	100423B01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.											
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>					
TPH as Gasoline Surrogates:	ND <u>REC (%)</u>	100 Control Limits	48 <u>MDL</u>	1	<u>Qual</u>	ug/L					
1.4-Bromofluorobenzene	82	38-134									





Limits

80-141

76-120

122

AMEC Geomatrix, Inc.

510 Superior Avenue

Work Order No:

10-04-1426

Suite 200

Preparation:

EPA 5030B

Newport Beach, CA 92663-3627

Method:

Units:

ug/L

Project: SFPP - Norwalk Site Page 1 of 1

Project: SFPP - Norv	valk Site										Page	e 1 of	<u>1</u>
Client Sample Number				Sample mber		Date/Time Collected	Matrix	Instrument	Date Prepar		te/Time nalyzed	QC Bat	ch ID
EFF-04-20			10-04	-1426-2	?-B	04/20/10 12:15	Aqueous	GC/MS CC	04/22/	10	1/22/10 20:47	100422	L01
Comment(s): -Results we	re evaluated to th	e MDL, c	oncentra	tions >=	to the N	MDL but < RL	, if found, are	e qualified wi	th a "J" flag	J .			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	MDL	<u>DF</u>	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-Bu	tyl Ether (M7	ГВЕ)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	REC (%)	Control Limits	<u>Q</u> ı	<u>ıal</u>		Surrogates:			REC (%)	Contro Limits	<u>Q</u>	<u>tual</u>	
Dibromofluoromethane	121	80-132				1,2-Dichlor	ethane-d4		127	80-141			
Toluene-d8	104	80-120				1,4-Bromofl	uorobenzen	е	86	76-120			
Method Blank			099-1	4-001-5	513	N/A	Aqueous	GC/MS CC	04/22/		1/22/10 12:11	100422	2L01
Comment(s): -Results we	re evaluated to th	e MDL, c	oncentra	tions >=	to the N	MDL but < RL	, if found, ar	e qualified wi	th a "J" flag	J.			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	DF	Qual	<u>Parameter</u>			<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	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-Bu	tyl Ether (M7	ГВЕ)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	REC (%)	Control	<u>Qı</u>	<u>ıal</u>		Surrogates:			REC (%)	Contro	<u>Q</u>	<u>ual</u>	

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

Limits

80-132

80-120

116

102

Dibromofluoromethane

Toluene-d8

1,2-Dichloroethane-d4

1,4-Bromofluorobenzene





AMEC Geomatrix, Inc. 510 Superior Avenue

Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Date Received: Work Order No: Preparation:

Method:

10-04-1426 EPA 3020A Total

EPA 6020

04/20/10

Units: mg/L 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.

<u>Parameter</u> Result <u>RL</u> MDL <u>DF</u> Qual <u>Parameter</u> Result RL MDL <u>DF</u> Qual Copper 0.000794 0.00100 0.000105 J 0.00314 0.00100 0.000554 1 Selenium

Method Blank			096	5-06-003	-2,751	N/A	Aqueous	ICP/MS 03	04/20/10	16:28	10042	20L01	ĺ
Comment(s):	-Results were	evaluated to the	MDL, concent	trations >	= to the N	MDL but < RL,	if found, are	qualified with	n a "J" flag.	ı			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>	Res	<u>sult</u> <u>l</u>	<u>RL</u>	MDL	<u>DF</u>	Qual	
Copper	ND	0.00100	0.000105	1		Selenium	ND	(0.00100	0.000554	1		

RL - Reporting Limit ,

DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: 04/20/10 10-04-1426 EPA 7470A Total 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 w	ere evaluated to the MDL, co	oncentrations >= to th	e MDL but < RL	L, if found, ar	e qualified with	n a "J" flag.		
<u>Parameter</u>	<u>Result</u>	<u>RL</u> <u>MDI</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.00	000177 1			mg/L		
Method Blank		099-12-510-66	N/A	Aqueous	Mercury	04/21/10	04/21/10 12:07	100421L02
Comment(s): -Results w	ere evaluated to the MDL, co	oncentrations >= to th	e MDL but < RL	L, if found, ar	e qualified with	n a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u> <u>MDI</u>	_ !	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.00	000177 1			mg/L		

Mulha

DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc.

Date Received:

04/20/10

510 Superior Avenue

Work Order No:

10-04-1426

Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site Page 1 of 1

Client Sample Number		Lab Sample	e Number	Date Collected	Matri	ix		_		
EFF-04-20			10-04-142	26-2	04/20/10	Aqueo	ous			
Comment(s): (24) Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	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	Aque	ous			
Comment(s): (24) Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.										
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	DF	<u>Qual</u>	<u>Units</u>	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	







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 04/20/10 10-04-1426 EPA 3020A Total 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
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper Selenium	88 87	87 86	72-108 59-125	2 1	0-10 0-12	

MMM_

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 Work Order No: Preparation: Method: 04/20/10 10-04-1426 EPA 3020A Total 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
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	<u>RPD</u> <u>RPI</u>	O CL Qualifiers
Copper Selenium	88 88	86 87	75-125 75-125	_	10 12

CL - Control Limit





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

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 0		04/23/10	100423S01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	<u>Qualifiers</u>
TPH as Gasoline	92	92	68-122	1	0-18	

MMM_

RPD - Relative Percent Difference , CL - Control Limit





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date ent Prepared		Date Analyzed	MS/MSD Batch Number		
10-04-1452-1	Aqueous	Mercury	04/21/10	04/21/10		04/21/10 10042		100421S02
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers		
Mercury	97	98	57-141	1	0-10			

RPD - Relative Percent Difference ,
7440 Lincoln

CL - Control Limit





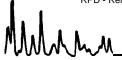
AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-04-1438-2	Aqueou	is GC/MS CC	04/22/10		04/22/10	100422801
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	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	







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Date Received: Work Order No:

N/A 10-04-1426

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

<u>Parameter</u>	Method	Quality Control Sample ID	<u>Date</u> <u>Analyzed</u>	<u>Date</u> Extracted	MS% REC	MSD % REC	%REC CL	<u>RPD</u>	RPD CL	<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

Date Received: Work Order No:

10-04-1426

Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Matrix:	Aqueous	or Solid
---------	---------	----------

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





Quality Control - LCS/LCS Duplicate



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method:

N/A 10-04-1426 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bato Number	h
096-06-003-2,751	Aqueous	ICP/MS 03	04/20/10	04/20/10	100420L01	
<u>Parameter</u>	LCS %	SREC LCSD	<u>%REC</u> <u>%F</u>	REC CL RPD	RPD CL	Qualifiers
Copper	98	100	8	30-120 1	0-20	
Selenium	101	99	8	30-120 2	0-20	





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

10-04-1426 EPA 5030B EPA 8015B (M)

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepar		ate lyzed	LCS/LCSD Bate Number	ch
099-12-247-4,128	Aqueous	GC 25	04/23/1	10 04/2	3/10	100423B01	
<u>Parameter</u>	LCS %	<u> LCSI</u>	0 %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	92	9	0	78-120	2	0-10	

MMM_





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

10-04-1426 EPA 7470A Total EPA 7470A

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyze	d	LCS/LCSD Batch Number	1
099-12-510-66	Aqueous	Mercury	04/21/10	04/21/10		100421L02	
<u>Parameter</u>	LCS %	6REC LCSD	%REC %F	REC CL	<u>RPD</u>	RPD CL	Qualifiers
Mercury	96	95	8	35-121	0	0-4	

Mulhan_

RPD - Relative Percent Difference , CL - Control Limit





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

10-04-1426 **EPA 5030B** EPA 8260B

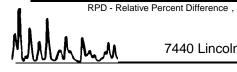
N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal	ate yzed	LCS/LCSD Numbe	
099-14-001-513	Aqueous	GC/MS CC	04/22/10	04/22/10		100422L	01
<u>Parameter</u>	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:

LCS ME CL validation result: Pass







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Date Received: Work Order No:

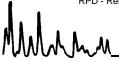
N/A 10-04-1426

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

	Matrix:	Aqueous	or Solid
--	---------	---------	----------

<u>Parameter</u>	<u>Method</u>	Quality Control Sample ID	<u>Date</u> Extracted	<u>Date</u> <u>Analyzed</u>	LCS % REC	LCSD % REC	%REC CL	<u>RPD</u>	RPD CL	<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	





Glossary of Terms and Qualifiers



Work Order Number: 10-04-1426

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

75 **CHAIN OF CUSTODY RECORD** (Temp. as sampled*) Time: Comments Temperature* = LAB USE ONLY Temperature* = 9 04-20-1 QUOTE NO. 0 P.O. NO.: 2 Monthly REQUESTED ANALYSIS Date: Da(e: DATE: PAGE: TAT AH AS no muinələS × × Hg,Cr(VI),Cu(1669,7199,6020) \mathcal{L}_{j} × Phenolics (420.1) ح × Total Suspended Solids (160.2) × (6.03f) sbilos eldsettles × W#BE;BTEX;1,1-DCA;1,2-DCA;MEK(8260B) SFPP - Norwalk Site anny × LbH-9 (C5-C14 Only) (8015M) × (1.614) essene & liO James Dye SAMPLER(S): (SIGNAT) AOCs' Enli List (8260B) × (M2108) q1-H9T Received by: (Signature) Received by: (Signature) Received by: (Signature) × (M2108) g - H9T 7 lames dye@kindermorgan.com 10 DAX "J" flags required/Use lowest possible detection limit - all methods. ≶ ≶ MAT. 1215 12/B/ Ħ E-MAIL Report to A. Padilla at Geomatrix, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195 5 DAYS SAMPLING TEL: (714) 895-5494 . FAX: (714) 894-7501 04-2016 Kinder Morgan Energy Partners, Attn: Steve Defibaugh 11-02-13 ARCHIVE SAMPLES UNTIL DATE **GARDEN GROVE, CA 92841-1432** 72 HR 714-560-4601 7440 LINCOLN WAY LOCATION/ DESCRIPTION 48HR SAME DAY 24 HR 48HR Effluent Influent ΕŘ ☐ RWQCB REPORTING ☐ 1100 Town & Country Road \mathcal{I} * INF. 84'30 2 EFF. 04' 2 aboratories, Inc. 714-560-4802 SAMPLE ID gerby: (Signature) Relinquished by: (Signature) Relinquished by: (Signerflys **Orange, CA 92868** alscience nvironmental Revised: 07/23/09 TURNAROUND TIME LAB USE ONLY

Calscience Environmental WORK ORDER #: 10-04- ☑ ☑ ☑ ☑

SAMPLE RECEIPT FORM

Cooler <u>/</u> of <u>/</u>

CLIENT: KMEP	DATE: _	04/20	<u>'/10</u>								
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not frozen) Temperature											
CUSTODY SEALS INTACT: □ Cooler □ □ □ No (Not Intact) ✓ Not Present □ Sample □ □ No (Not Intact) ✓ Not Present		lnitia Initia	al: <u> </u>								
SAMPLE CONDITION: Chain-Of-Custody (COC) document(s) received with samples	Yes ⊉′	N o □	N/A □								
COC document(s) received complete											
☐ Collection date/time, matrix, and/or # of containers logged in based on sample label ☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.											
Sampler's name indicated on COC	🗷										
Sample container label(s) consistent with COC											
Sample container(s) intact and good condition											
Proper containers and sufficient volume for analyses requested	,										
Analyses received within holding time	☑										
Proper preservation noted on COC or sample container											
☐ Unpreserved vials received for Volatiles analysis											
Volatile analysis container(s) free of headspace	☑										
Tedlar bag(s) free of condensation			Z								
CONTAINER TYPE:											
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCor	es® □Terra	ıCores [®] □									
Water: □VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGB											
□500AGB ☑500AGJ ☑500AGJs □250AGB □250CGB □250CGE	Bs Ø1PB	□500PB □	500PB na								
□250PB ☑250PBn □125PB □125PB znna □100PJ □100PJ na₂ □_			l								
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#:											
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag	•	Reviewed by									
Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 znna: ZnAc2+NaOH	f: Field-filtered	Scanned by	A: MRC								





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,

Calscience Environmental Laboratories, Inc.

Stephen Nowak Project Manager

CA-ELAP ID: 1

NELAP ID: 03220CA

CSDLAC ID: 10109

SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 ·

TEL:(714) 895-5494 ·

FAX: (714) 894-7501



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 %

TUc = 1.00

IC25 =>100.00 % >100.00 % IC50 =

REPRODUCTION NOEC = 100.00 %

> TUc = 1.00

>100.00 % IC25 =IC50 =>100.00 %

Yours very truly,

Thomas (Tim) Mikel Laboratory Director

			Cerioda	aphnia Sur	vival and	Reprodu	ction Tes	t-7 Day S	Survival	
Start Date:	5/5/2010	•	Test ID:	CSE05100	48		Sample ID	:	CA00000	
End Date:	5/12/2010		Lab ID:	CAABC			Sample Ty	/pe:	EFF1-POT	rw -
Sample Date:	5/4/2010		Protocol:	EPA-821-F	R-02-013		Test Spec	ies:	CD-Cerioo	laphnia dubia
Comments:	UCC-05-04	(10-05	5-0151)							
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

	•			Not			Fisher's	1-Tailed	Isot	onic
Conc-%	Mean	N-Mean	Resp	Resp	Total	N	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 Exa			100	>100		1				
Treatments	vs N Control									
						lation (200) Resamples)		
Point	<u>%</u>	SD	95%	CL	Skew					
IC05	>100									
IC10	>100									
IC15	>100						1.0 T			
IC20	>100						0.9 -			
IC25	>100						4			
IC40	>100						0.8 -			
IC50	>100						0.7			
							u ne d			
							క్లా }			
							Response 0.6 - 0.5 - 0.4			
							8 0.4			
							0.3			
							4			
							0.2			
							0.1 -			
							4			
							0.0			
							0	50	100	150
								Dos	se %	

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

5/5/2010 Start Date: 5/12/2010 End Date:

Lab ID: CAABC

Test ID: CSE0510048

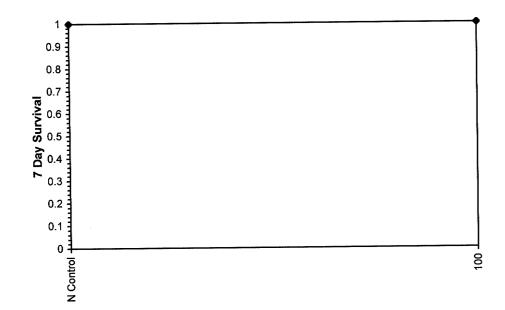
Sample ID: Sample Type: CA00000 **EFF1-POTW**

Protocol: EPA-821-R-02-013 Sample Date: 5/4/2010

Test Species:

CD-Ceriodaphnia dubia

Comments: UCC-05-04 (10-05-0151)



			Cerioda	phnia Su	rvival and	Reprodu	iction Tes	t-Repro	duction		
J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	5/5/2010 5/12/2010		Lab ID: (CSE05100 CAABC			TW				
Sample Date: Comments:	5/4/2010 UCC-05-0		Protocol: I 5-0151)	EPA-821-F	R-02-013	•	Test Spec	ies:	CD-Ceriod	laphnia dubia	
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	

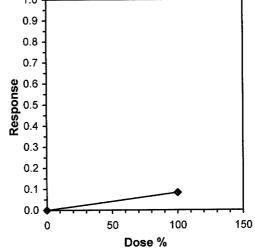
				Transforn	n: Untrans	sformed			1-Tailed		Isot	onic
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
N Control	29.900	1.0000	29.900	18.000	35.000	17.303	10				29.900	1.0000
100	27.400	0.9164	27.400	24.000	33.000	11.043	10	1.319	1.730	3.279	27.400	0.9164

Auxiliary Tests					Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates nor	mal distribu	ution (p > 0).01)		0.91099		0.868		-1.2749	2.42835
F-Test indicates equal variances			,		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
T. Constant N. Cantant										

Treatments vs N Control

Linear Interpolation (200 Resamples

			Lir	ear Interpolatio	n (200 Resamples)	
Point	%	SD	95% CL	Skew		
IC05*	59.800					
IC10	>100					
IC15	>100				1.0 T	
IC20	>100				0.9	
IC25	>100				4	
IC40	>100				0.8 -	
IC50	>100				0.7 1	
* indicates	IC estimate les	ss than the	e lowest concent	ration	9 , 0.6 -	



Start Date: End Date:

5/5/2010 5/12/2010

Lab ID: CAABC

Test ID: CSE0510048

Sample ID: Sample Type:

EFF1-POTW

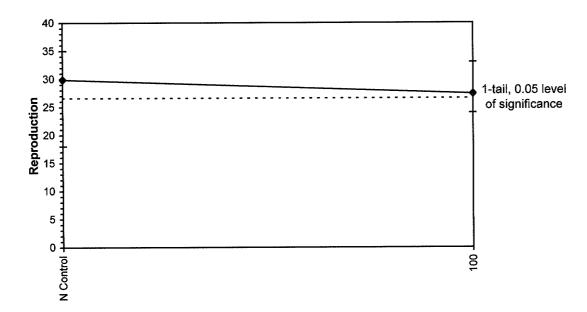
Sample Date: 5/4/2010

Protocol: EPA-821-R-02-013

Test Species:

CD-Ceriodaphnia dubia

Comments: UCC-05-04 (10-05-0151)



Start Date:

5/5/2010

Test ID: CSE0510048 Lab ID: CAABC

Sample ID:

CA00000 EFF1-POTW

End Date: Sample Date: 5/4/2010

5/12/2010

Protocol: EPA-821-R-02-013

Sample Type: Test Species:

CD-Ceriodaphnia dubia

UCC-05-04 (10-05-0151) Comments:

			Au	xiliary Dat	a Summa	ry	
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	рН	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

1.00

IC25 = >100.00 %

IC50 = >100.00 %

Yours very truly,

Thomas (Tim) Mikel Laboratory Director

			Cerioda	phnia Sur	vival and	Reprodu	ction Tes	t-7 Day S	Burvival	
	5/5/2010 5/12/2010 5/4/2010		Lab ID:	CSE05100 CAABC EPA-821-F		;	Sample ID Sample Ty Test Spec	pe:	CA00000 EFF1-POT CD-Ceriod	™ laphnia dubia
Comments:	DCC-05-0	4 (10-05	5-0151)				-			10
Conc-%	1	2	3	4	5	0		0	3	
N Control 100		1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000

			*****	Not			Fisher's	1-Tailed	Isoto	onic
Conc-%	Mean	N-Mean	Resp	Resp	Total	N	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 Exa	ct Test		100	>100		1				
Treatments	vs N Control									
						lation (20	0 Resamples)			
Point	%	SD	95%	GL_	Skew					
IC05	>100									
IC10	>100									
IC15	>100						1.0 T			
IC20	>100						0.9			
IC25	>100						4			
IC40	>100						0.8 -			
IC50	>100						0.7			
							Response 0.6 0.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
							Ö 0.5 -			
							8 (4)			
							0.3 -			
							0.2			
							4			
							0.1 -			
							0.0	, , , , , ,	 •	
							0	50	100	150
									se %	

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date:

5/5/2010

Lab ID: CAABC

Test ID: CSE0510049

Sample ID:

CA00000

End Date: Sample Date: 5/4/2010 Comments:

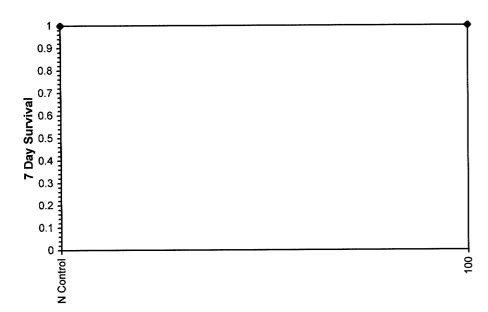
5/12/2010

Protocol: EPA-821-R-02-013

Sample Type: Test Species: **EFF1-POTW**

DCC-05-04 (10-05-0151)

CD-Ceriodaphnia dubia



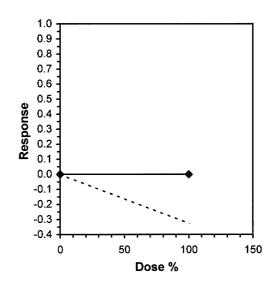
			Ceriod	aphnia Su	rvival and	Reprodu	uction Tes	t-Repro	duction		
Start Date:	5/5/2010	•	Test ID:	CSE05100)49		Sample ID):	CA00000		
End Date:	5/12/2010		Lab ID:	CAABC			Sample Ty	/pe:	EFF1-PO7	rw	
Sample Date:	5/4/2010		Protocol:	EPA-821-I	R-02-013		Test Spec	ies:	CD-Cerioo	laphnia dubia	
Comments:	DCC-05-0	4 (10-05	5-0151)								
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	

			•	Transforn	n: Untran	sformed			1-Tailed		Isot	onic
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	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 nor	mal distribu	ition (p > 0	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			



Start Date: 5/5/2010 End Date: 5/12/2010

Test ID: CSE0510049 Lab ID: CAABC

Sample ID:

CA00000 EFF1-POTW

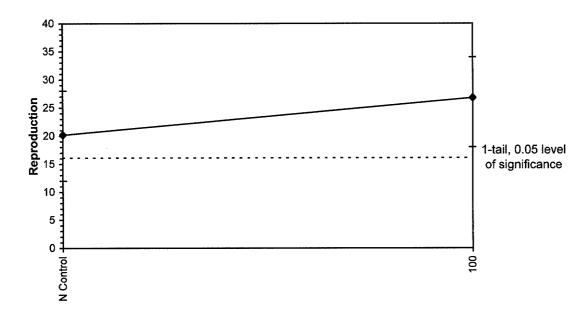
Sample Date: 5/4/2010

Protocol: EPA-821-R-02-013

Sample Type: **Test Species:**

CD-Ceriodaphnia dubia

DCC-05-04 (10-05-0151) Comments:



Start Date:

5/5/2010

Test ID: CSE0510049

Sample ID:

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)

			Aux	kiliary Data	a Summa	ry	
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	рН	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:	CSE05100	50		Sample ID: Ca							
End Date:	5/12/2010		Lab ID:	CAABC		Sample Type: EFF1-POTW								
Sample Date:	5/4/2010		Protocol:	EPA-821-F	R-02-013		Test Spec	ies:	CD-Ceriod	aphnia 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				

*****				Not			Fisher's	1-Tailed	Isotonic		
Conc-%	Mean	N-Mean	Resp	Resp	Total	N	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 Exa			100	>100		1					
Treatments	vs N Control										
				Line	ar Interpo	lation (20	0 Resamp	les)			
Point	%	SD	95%	CL	Skew						
IC05	>100										
IC10	>100										
IC15	>100						1.0 T				
IC20	>100						0.9				
IC25	>100						- 4				
IC40	>100						0.8 -				1
IC50	>100						0.7				
							1				
							8 0.6 J				
							8 0.5 -				
							Response 0.6 1 0.7				
							0.3				
							0.2				
							4				•
							0.1				
							0.0	- 1"		-, + -	
							0		50	100	150
									Dos	se %	

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date:

5/5/2010

Test ID: CSE0510050

Sample ID:

EFF1-POTW

End Date: Sample Date: 5/4/2010

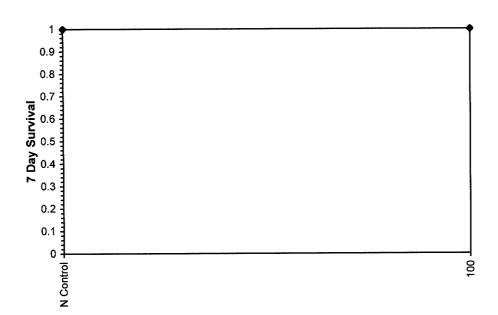
5/12/2010

Lab ID: CAABC Protocol: EPA-821-R-02-013 Sample Type: Test Species:

CD-Ceriodaphnia dubia

Comments:

EFF-05-04 (10-05-0151)



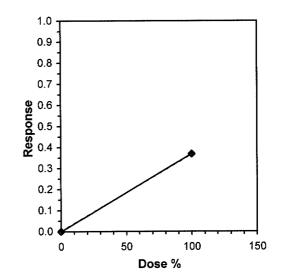
		Cerioda	phnia Su	rvival and	Reprodu	iction Tes	st-Repro	duction	
5/5/2010	-	Test ID: (CSE05100)50	(Sample ID:			
5/12/2010	l	Lab ID: (CAABC		Sample Type: EFF1-POTW				W
5/4/2010		Protocol: I	EPA-821-F	R-02-013	-	Test Spec	ies:	CD-Cerioo	laphnia dubia
	(10-05-	-0151)							
1	2	3	4	5	6	7	8	9	10
32.000	28.000	23.000	15.000	26.000	30.000	20.000	17.000	26.000	27.000
15.000	14.000	14.000	15.000	15.000	15.000	15.000	14.000	15.000	22.000
-	5/12/2010 5/4/2010 EFF-05-04 1 32.000	5/12/2010 5/4/2010 EFF-05-04 (10-05- 1 2 32.000 28.000	5/5/2010 Test ID: 5/12/2010 Lab ID: 5/4/2010 Protocol: EFF-05-04 (10-05-0151) 1 2 3 32.000 28.000 23.000	5/5/2010 Test ID: CSE05100 5/12/2010 Lab ID: CAABC 5/4/2010 Protocol: EPA-821-F EFF-05-04 (10-05-0151) 1 2 3 4 32.000 28.000 23.000 15.000	5/5/2010 Test ID: CSE0510050 5/12/2010 Lab ID: CAABC 5/4/2010 Protocol: EPA-821-R-02-013 EFF-05-04 (10-05-0151) 1 2 3 4 5 32.000 28.000 23.000 15.000 26.000	5/5/2010 Test ID: CSE0510050 5/12/2010 Lab ID: CAABC 5/4/2010 Protocol: EPA-821-R-02-013 EFF-05-04 (10-05-0151) 1 2 3 4 5 6 32.000 28.000 23.000 15.000 26.000 30.000	5/5/2010 Test ID: CSE0510050 Sample ID 5/12/2010 Lab ID: CAABC Sample Ty 5/4/2010 Protocol: EPA-821-R-02-013 Test Spec EFF-05-04 (10-05-0151) Test Spec 32.000 28.000 23.000 15.000 26.000 30.000 20.000	5/5/2010 Test ID: CSE0510050 Sample ID: 5/12/2010 Lab ID: CAABC Sample Type: 5/4/2010 Protocol: EPA-821-R-02-013 Test Species: EFF-05-04 (10-05-0151) Test Species: 32.000 28.000 23.000 15.000 26.000 30.000 20.000 17.000	5/12/2010 Lab ID: CAABC Sample Type: EFF1-POT 5/4/2010 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriod EFF-05-04 (10-05-0151) Test Species: CD-Ceriod 32.000 28.000 23.000 15.000 26.000 30.000 20.000 17.000 26.000

			Transform: Untransformed					1-Tailed		Isot	onic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	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					Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates nor	mal distribu	ution (p > 0	0.01)		0.93453		0.868		-0.2907	0.71604
F-Test indicates equal variances		5.52381		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
To of constants M. Onstant										

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 I	C estimate les	s than the	e lowest c	oncentrati	on



Start Date:

5/5/2010

Test ID: CSE0510050

Sample ID:

CA00000 EFF1-POTW

End Date: Sample Date: 5/4/2010

5/12/2010

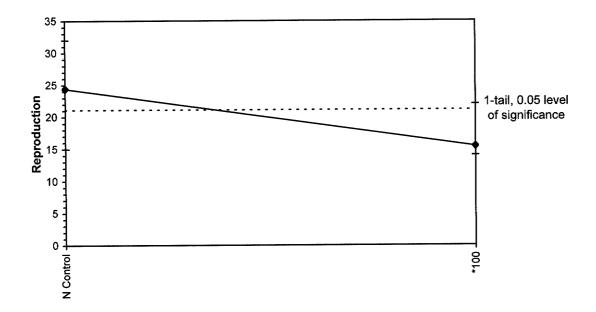
Lab ID: CAABC

Protocol: EPA-821-R-02-013

Sample Type: Test Species:

CD-Ceriodaphnia dubia

Comments: EFF-05-04 (10-05-0151)



Start Date: End Date:

5/5/2010

Test ID: CSE0510050

Sample ID:

Sample Date: 5/4/2010

5/12/2010

Lab ID: CAABC

Protocol: EPA-821-R-02-013

Sample Type: Test Species: **EFF1-POTW** CD-Ceriodaphnia dubia

Comments: EFF-05-04 (10-05-0151)

			Au	xiliary Data	a Summa	ry	
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	pН	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	ū	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

7440 LINCOLN WAY alscience Environmental

CHAIN OF CUSTODY RECORD

05/05/10

P

PAGE:

TO: Aquatic bioassay

TEL: (714) 895-5494 . FAX: (714) 894-7501 GARDEN GROVE, CA 92841-1427 aboratories, Inc.

LAB USE ONLY QUOTE NO.: REQUESTED ANALYSIS Stephen Nowak 10-05-0151 SAMPLER(S): (PRINT) PROJECT CONTACT Received by / Affiliation: (Signature) Ceriodaphnia-Reproduction only × × × Chronic Toxicity-see below ≥ ≥ ≥ 13:10 13:10 05/04/10 | 11:55 TIME X NORMAL SAMPLING 05/04/10 05/04/10 snowak@calscience.com DATE]5 DAYS CHIVE SAMPLES UNTIL 50 TEMP - 330C Calscience Environmental Laboratories, Inc. **□**72 HR 子子系小 UCC-05-04 DCC-05-04 SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) EFF-05-04 SAMPLE ID Garden Grove, CA 92841-1427 SPECIAL INSTRUCTIONS Relinquished by: (Signature) 7440 Lincoln Way LABORATORY CLIENT 714-895-5494 URNAROUND TIME

LAB USE ONLY

1580

5/4/10

G50 54083311

(CALSCIENCE)

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by / Affiliation: (Signature)

Received by / Affiliation: (Signature)

Brown Commercial

Time:

Date:



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,

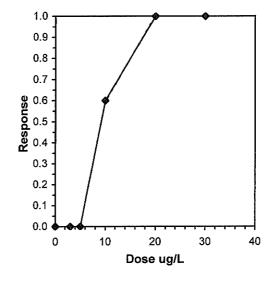
Thomas (Tim) Mikel Laboratory Director

	Ceriodaphnia Survival and Reproduction Test-7 Day Survival											
Start Date:	5/4/2010		Test ID:	CER0504	10	Sample ID:			CA0000000			
End Date:	5/11/2010		Lab ID:	CAABC	•			/pe:	CUCL-Co	oper chloride		
Sample Date:	5/4/2010		Protocol:	EPA-821-F	, ,,				CD-Cerioo	laphnia dubia		
Comments:	Standard 7	Toxicant										
Conc-ug/L	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		
3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
10	1.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000	0.0000	1.0000	1.0000		
20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

				Not			Fisher's	1-Tailed	Isotonic		
Conc-ug/L	Mean	N-Mean	Resp	Resp	Total	N	Exact P	Critical	Mean	N-Mean	
N Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000	
3	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000	
5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000	
*10	0.4000	0.4000	6	4	10	10	0.0054	0.0500	0.4000	0.4000	
20	0.0000	0.0000	10	0	10	10			0.0000	0.0000	
30	0.0000	0.0000	10	0	10	10			0.0000	0.0000	

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	
Fisher's Exact Test	5	10	7.07107		
Treatments vs N Control					

				Linea	r Interpolatio	n (200 Resamples)
Point	ug/L	SD	95%	CL	Skew	
IC05	5.4167	0.1435	5.2778	5.8333	1.9325	
IC10	5.8333	0.2870	5.5556	6.6667	1.9325	
IC15	6.2500	0.4306	5.8333	7.5000	1.9325	1.0
IC20	6.6667	0.5741	6.1111	8.3333	1.9325	0.9
IC25	7.0833	0.7011	6.3889	9.1667	1.7034	0.9]
IC40	8.3333	1.0528	7.2222	11.4286	1.3776	0.8 -
IC50	9.1667	1.3302	7.7778	12.8571	1.2222	0.7 1



Ceriodaphnia Survival and Reproduction Test-7 Day Survival

CA0000000 Start Date: 5/4/2010 Test ID: CER050410 Sample ID:

Sample Type: **CUCL-Copper chloride** End Date: 5/11/2010 Lab ID: CAABC CD-Ceriodaphnia dubia

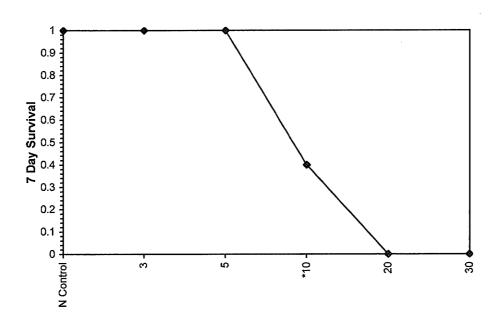
Protocol: EPA-821-R-02-013

Standard Toxicant Comments:

Sample Date: 5/4/2010

Dose-Response Plot

Test Species:



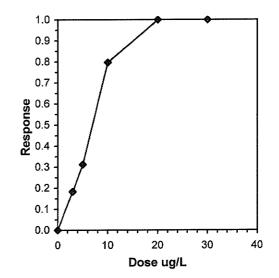
			Cerioda	aphnia Su	rvival and	Reprodu	ıction Tes	t-Repro	duction	
Start Date:	5/4/2010		Test ID:	CER0504 ²	10		Sample ID);	CA000000	00
End Date:	5/11/2010		Lab ID:	CAABC			Sample Ty	/pe:	CUCL-Co	pper chloride
Sample Date:	5/4/2010		Protocol:	EPA-821-I	R-02-013	•	Test Spec	ies:	CD-Cerioo	laphnia dubia
Comments:	Standard 7	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

				Transform	n: Untrar	sformed			_ 1-Tailed			onic
Conc-ug/L	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 nor	mal distribu	ution (p > 0	0.01)		0.93834		0.919		0.61957	-0.3883
Bartlett's Test indicates equal var			·		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										

11001111011110	V3 14 CONITO		1.0	Linea	r Interpolatio	n (200 Resamples)
Point	ug/L	SD	95%		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	1.0
IC20	3.2667	0.5876	2.3465	4.6294	0.4293	0.9 1
IC25	4.0385	0.5851	2.9331	5.3047	0.0609	0.9]
IC40	5.9041	0.3471	5.2649	6.6925	0.4136	0.8 -
IC50	6.9349	0.3442	6.2896	7.6754	0.4870	0.7

^{*} indicates IC estimate less than the lowest concentration



Test ID: CER050410 Start Date: 5/4/2010 End Date:

Lab ID: CAABC

Protocol: EPA-821-R-02-013

Sample ID: Sample Type: CA0000000 **CUCL-Copper chloride**

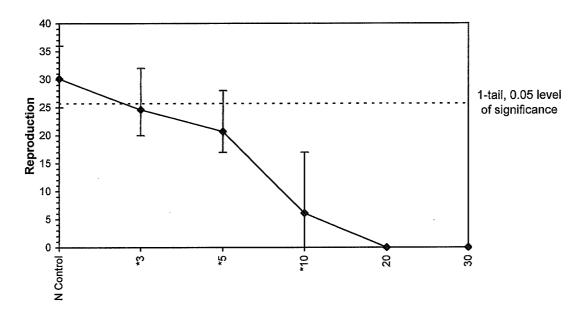
Comments:

5/11/2010 Sample Date: 5/4/2010 Standard Toxicant

Test Species:

CD-Ceriodaphnia dubia

Dose-Response Plot



Start Date:

5/4/2010

Test ID: CER050410

Sample ID:

CA0000000

End Date: Sample Date: 5/4/2010

5/11/2010

Lab ID: CAABC

Protocol: EPA-821-R-02-013

Sample Type:

CUCL-Copper chloride

Comments:

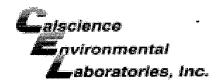
Standard Toxicant

Test Species:

CD-Ceriodaphnia dubia

Comments.	Otanidard Toxicant		Aux	ciliary Data	a Summa	ry		
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	
3 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	8	
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	8	
3	G	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	8	
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	8	
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	8	
3	, 0	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	

Ĵ	iscience .	7440 LINCOLN WAY								CHAIN	OF CUSTO	CHAIN OF CUSTODY RECORD	
Щ,	Environmental	GARDEN GROVE, CA 92841-1432	41-1432							DATE: C	05-64-10	2	Į
•	aboratories, Inc.	TEL: (714) 895-5494 . FAX:	: (714) 894-7501	7501						PAGE:	1 OF	-	
LABOR Kind	LABORATORY CLIENT: (Inder Morgan Energy P	<u>ывокатоку сывит:</u> Kinder Morgan Energy Partners. Attn: Steve Defibaugh	efibaugh				CLIENT PROJECT NAME / NUMBER	E/NUMBER:			P.O. NO.:		
ADDRES	ADDRESS:	To co	0			¹	SFPP - Norwalk Site	alk Site			CN atolio		
S E E	Country of Country of	Oac.				T	James Dye	1					
Oran	Orange, CA 92868				,	<u> </u> "	SAMPLER(S): (SIGNATURE)	IRE	\		LAB USE ONLY	TV Comments	17.5
Ξ.	714-560-4802	FAX: 714-560-4601	1	E-MAIL james dye@kindermorgan.com	ndermorgan.c	uo.	1		\setminus				<u> 1.357</u> .
TURNA S	TURNAROUND TIME SAME DAY 74 HR	48HR 72 HR	5 DAYS		T 10 DAYS			2	REQUES	REQUESTED ANALYSIS	-YSIS		· · · · · · · · · · · · · · · · · · ·
SPECIA) STN	1		1		*							т-
	MOCB REPORTING	☐ ARCHIVE SAMPLES	S UNTIL	_				-					
	Port to A. Padilla at port to A. Padilla at ect Bill KMEP/SFPF flags required/Use	PECAL INSTRUCTIONS Report to A. Padilla at Geomatrix, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195 "J" flags required/Use lowest possible detection limit - all methods.	f. AFE# 81195 ction limit - all	1195 t - all me	thods.		YJWO noi				*******************		
							gener						
			SAMPLING	LING	ž o	NO. OF CONT.							
USE USE	SAMPLEID	LOCATION/ DESCRIPTION	DATE	TIME	MAT-	ticivoT Sinoad,	A sindqsbone:						
5	40-50-DD	50 FT UPSTREAM	85.04.16	13/10	WW.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-I X				Temperature*	comments	_
		DISCH. OUTFALL.											
7	40.50 -20d	50' DOWNSTREAM	05.44.46	1810	ww	<u>_</u>	X				Temperature*	=	
		DISCH. OUTFALL.											
S	EFF- 05-04	EFFLUENT	9149.58	11:55	ww	<u>_</u>	X				Temperature*	= 79.5	,
											(Temp. a	as sampled*)	· 1
													· · ·
		7											
Reling	Relinquished by: (Signa) ure)				Received by: (Signature)	by: (Sign	ature)	1. 42			Date: $\sqrt{T/\psi/t^2}$	Time: /3@7	
Reling	Relinquished by: (Signature)				Received by: (Signature)	ру: (9 g п	ature) ()				Date:	Time:	
Reling	Relinquished by: (Signature)				Received by: (Signature)	by: (Sign	ature)				Date:	Time:	1
Jan 19	00/60/20				Ì			1					٦



SAMPLE RECEIPT FORM

Cooler __/ of __/

CLIENT: KINDER MORGAN	DATE: _	05/04/10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not froz Temperature	☐ Blank day of sampli	Sample ing. Initial:
CUSTODY SEALS INTACT: □ Cooler □ □ □ No (Not Intact) □ Not Presen □ Sample □ □ No (Not Intact) □ Not Presen		Initial:
SAMPLE CONDITION: Chain-Of-Custody (COC) document(s) received with samples COC document(s) received complete	🗹	No N/A
□ No analysis requested. □ Not relinquished. □ No date/time relinquished. Sampler's name indicated on COC		
Proper preservation noted on COC or sample container	🗆	
Solid: \ 4ozCGJ \ 8ozCGJ \ 16ozCGJ \ Sleeve () \ EnCor Water: \ VOA \ VOAh \ VOAna2 \ 125AGB \ 125AGB \ 125AGBh \ 125AGB \ 500AGB \ 500AGJ \ 500AGJS \ 250AGB \ 250CGB \ 250CGB \ 250CGB \ 250PB \ 250PB \ 125PB \ 125PBznna \ 100PJ \ 100PJna2 \ \frac{1}{2} \] Air: \ Tedlar\ Summa\ Other: \ \ Trip Blank Lot#: \ Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 znna: ZnAc2+NaOH	p □1AGB Ss □1PB Ć_AL· □ Labeled/ E: Envelope I	□1AGBna₂ □1AGBs □500PB □500PBna □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□





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.

Calscience Environmental Laboratories, Inc.

Stephen Nowak

Project Manager

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

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

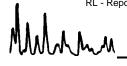
Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number		Lab Samp Number	le	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-14		10-05-11	93-1-E	05/14/10 12:45	Aqueous	GC 4	05/15/10	05/16/10 04:09	100515B01
Comment(s): -Results were eva	luated to the MDL,	, concentrations >	= to the M	1DL but < R	L, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	MDL		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits	<u>MDL</u>			Qual			
1,4-Bromofluorobenzene	89	38-134							
Method Blank		099-12-2	47-4,199	N/A	Aqueous	GC 4	05/15/10	05/15/10 14:09	100515B01

Comment(s): -Results were ev	aluated to the MDL,	concentrations >	= to the MD	DL but < RL, if found,	are qualified v	vith a "J" flag.
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Gasoline	ND	100	48	1		ug/L
Surrogates:	REC (%)	Control Limits	MDL		<u>Qual</u>	- 5
1.4 Promofluorobonzono	95	20 124				

1,4-Bromofluorobenzene 85 38-13







AMEC Geomatrix, Inc.

510 Superior Avenue

Work Order No:

10-05-1193

Suite 200

Preparation:

EPA 5030B

Newport Beach, CA 92663-3627

Method:

Units:

ug/L

Project: SFPP - Norwalk Site Page 1 of 1

Project: SFPP - Norw	aik Site										Page	e 1 of	<u>1</u>
Client Sample Number				Sample mber		Date/Time Collected	Matrix	Instrument	Da [.] Prepa		Date/Time Analyzed	QC Bat	tch ID
EFF-05-14			10-05	5-1193-1	I -A	05/14/10 12:45	Aqueous	GC/MS CC	05/17	7/10	05/17/10 13:58	100517	7L01
Comment(s): -Results were	e evaluated to th	e MDL, c	oncentra	ations >=	to the I	MDL but < RL	, if found, are	e qualified wi	th a "J" fla	ag.			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	MDL	<u>DF</u>	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-Bu	tyl Ether (M7	ГВЕ)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	Control Limits	<u>Qı</u>	<u>ual</u>		Surrogates:			REC (%	<u>Con</u> Limi		<u>)ual</u>	
Dibromofluoromethane	114	80-132				1,2-Dichlor	oethane-d4		110	80-1	<u>4</u> 1		
Toluene-d8	97	80-120				1,4-Bromof	luorobenzene	е	87	76-1	20		
Method Blank			099-1	14-001-8	306	N/A	Aqueous	GC/MS CC	05/17	7/10	05/17/10 12:28	100517	7L01
Comment(s): -Results were	e evaluated to th	e MDL, c	oncentra	ntions >=	to the I	MDL but < RL	, if found, are	e qualified wi	th a "J" fla	ag.			
<u>Parameter</u>	Result	<u>RL</u>	MDL	<u>DF</u>	Qual	<u>Parameter</u>			Result	RL	MDL	<u>DF</u>	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-Bu	tyl Ether (M7	ГВЕ)	ND	1.0	0.30	1	
Ethylhenzene	ND	1.0	0.22	1		•	•	•					

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					
Surrogates:	REC (%)	Control Limits	<u>Qu</u>	<u>al</u>	Surrogates:	REC (%)	Control Limits	<u>Qu</u>	<u>al</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 ,





AMEC Geomatrix, Inc. 510 Superior Avenue

Suite 200

Method Blank

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Date Received: Work Order No:

Work Order No:
Preparation:
Method:

05/14/10 10-05-1193 EPA 3020A Total

05/14/10

05/14/10

100514L02

EPA 6020 mg/L

Page 1 of 1

Aqueous ICP/MS 03

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

Units:

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

096-06-003-2,796

<u>Parameter</u> Result <u>RL</u> MDL <u>DF</u> Qual <u>Parameter</u> Result <u>RL</u> MDL <u>DF</u> Qual Copper 0.00303 0.00100 0.000105 0.00479 0.00100 0.000554 Selenium

									17.57		
Comment(s):	-Results were	e evaluated to the	MDL, concen	trations >	= to the I	MDL but < RL, if	found, are qualifie	d with a "J" flag.			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual
Copper	ND	0.00100	0.000105	1		Selenium	ND	0.00100	0.000554	1	

N/A

RL - Reporting Limit ,





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: 05/14/10 10-05-1193 EPA 7470A Total EPA 7470A

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number		Lab Sample Number	Date/Time Collected Mat	trix Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-14		10-05-1193-1-G	6 05/14/10 Aque 12:45	eous Mercury	05/17/10	05/17/10 16:56	100517L06A
Comment(s): -Results we	ere evaluated to the MDL, o	oncentrations >= to the	e MDL but < RL, if for	und, are qualified with	h a "J" flag.		
<u>Parameter</u>	<u>Result</u>	<u>RL</u> <u>MDI</u>	_ <u>DF</u>	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.00	000177 1		mg/L		
Method Blank		099-12-510-67	N/A Aqu	eous Mercury	05/17/10	05/17/10 16:33	100517L06A
Comment(s): -Results we	ere evaluated to the MDL, o	oncentrations >= to the	e MDL but < RL, if for	und, are qualified with	h a "J" flag.		
<u>Parameter</u>	<u>Result</u>	<u>RL</u> <u>MDI</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.00	000177 1		mg/L		

Mulling RL-Rep





AMEC Geomatrix, Inc.

Date Received:

05/14/10

510 Superior Avenue

Work Order No:

10-05-1193

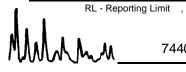
Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site Page 1 of 1

Client Sample Number			Lab Sample	e Number	Date Collected	Matri	x		
EFF-05-14			10-05-119	93-1	05/14/10	Aquec	ous		
Comment(s): (24) Results were	evaluated to the	MDL, con	centrations	>= to the	MDL but <	RL, if four	nd, are qualified wi	th a "J" flag.	
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	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	Aque	ous		
Comment(s): (24) Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.									
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	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







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 05/14/10 10-05-1193 EPA 3020A Total 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>	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Copper Selenium	91 72	91 70	72-108 59-125	1 2	0-10 0-12	

MMMM_



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyze	ed PDS / PDSD Batch Number
10-05-1118-1	Aqueous	ICP/MS 03	05/14/10	05/14/10	100514S02
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	<u>RPD</u> <u>R</u>	PD CL Qualifiers
Copper Selenium	92 74	92 72	75-125 75-125	-	0-10 0-12





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 05/14/10 10-05-1193 EPA 5030B 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
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	RPD RPD CL	Qualifiers
TPH as Gasoline	100	103	68-122	3 0-18	

Mulling.





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 05/14/10 10-05-1193 EPA 7470A Total 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>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Mercury	101	100	57-141	1	0-10	

MMM_





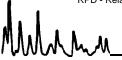
AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	d	Date Analyzed	MS/MSD Batch Number
EFF-05-14	Aqueou	is GC/MS CC	05/17/10		05/17/10	100517S01
<u>Parameter</u>	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	







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Date Received: Work Order No:

N/A 10-05-1193

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

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

Mulhan_



Quality Control - Duplicate



AMEC Geomatrix, Inc. 510 Superior Avenue

Work Order No:

Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Date Received:

10-05-1193

Matrix: Aqueous or Solid

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



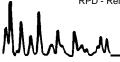




AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: N/A 10-05-1193 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
096-06-003-2,796	Aqueous	ICP/MS 03	05/14/10	05/14/10	100514L02	
<u>Parameter</u>	LCS %	REC LCSD %	<u> </u>	EC CL RPD	RPD CL	Qualifiers
Copper Selenium	106 98	104 97		0-120 1 0-120 0	0-20 0-20	







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: N/A 10-05-1193 EPA 5030B EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	l	LCS/LCSD Batcl Number	'n
099-12-247-4,199	Aqueous	GC 4	05/15/10	05/15/10		100515B01	
<u>Parameter</u>	LCS %	6REC LCSD	<u>%REC</u> <u>%</u> I	REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	103	108	-	78-120	5	0-10	

MMM_





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

10-05-1193 EPA 7470A Total EPA 7470A

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepare		ate lyzed	LCS/LCSD Bato Number	:h
099-12-510-67	Aqueous	Mercury	05/17/1	10 05/1	7/10	100517L06A	
<u>Parameter</u>	LCS %	<u> LCSI</u>	O %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	101	9	7	85-121	4	0-4	

MMM_





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

10-05-1193 **EPA 5030B** EPA 8260B

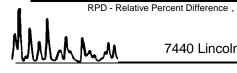
N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal	ate yzed	LCS/LCSD Numbe	
099-14-001-806	Aqueous	GC/MS CC	05/17/10	05/17	/10	100517L	01
<u>Parameter</u>	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:

LCS ME CL validation result: Pass







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Date Received: Work Order No:

N/A 10-05-1193

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Matrix:	Aqueous	or Solid
---------	---------	----------

<u>Parameter</u>	<u>Method</u>	Quality Control Sample ID	<u>Date</u> Extracted	<u>Date</u> <u>Analyzed</u>	LCS % REC	LCSD % REC	%REC CL	<u>RPD</u>	RPD CL	<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	





Glossary of Terms and Qualifiers



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.
В	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.

Calscience .	7440 LINCOLN WAY											ਹ	₹	CHAIN OF CUSTODY RECORD	DDY RECC)RD
nvironmental	GARDEN GROVE, CA 92841-1432	41-1432										ð	DATE:	ところの	-19	
Laboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	: (714) 894-7	7501									Ą	PAGE	+	0F 1	
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Kinder Morgan Energy Partners, Attn: Steve Defibaugh	Partners, Attn: Steve D	efibaugh									,			P.O. NO.		
1100 Town & Country Road	peo				<u> </u>	PROJECT CONTACT	CONTAC	SPFF - NORWAIK SITE		$/\!\!\!/$				QUOTE NO	Ö	
CITY:					Τ	James Dye	s Dye	1	/					1	į	
Orange, CA 92868						SAMPLER(S): (SIGNATURE)	(S):(S	MTURE)						LAB USE ONLY	ONLY	
TEL: 714-560-4802	714-560-460	1	E-MAIL james dye@kindermorgan.com	indermorgan	com	`	1	1		4				0	5 7 7 [93
TURNAROUND TIME					_	\			7	٥		DECLIERTED		ANIAI VCIC		
SAME DAY 🔲 24 HR 📋 48HR [☐ 48HR ☐ 72 HR	5 DAYS	-I	10 DAYS	s	//		ŀ	ļ	۲	֓֞֞֝֟֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֓֡֓֡֓֓֓֓֡֓֡֓֡֓֡֓			4L T 313		
SPECIAL REQUIREMENTS (ADDITION)		<u>.</u>			//	_	(809									
SPECIAL INSTRUCTIONS	ARCHIVE SAMPLE	S UNITE			1		(85									
Report to A. Padilla at	Report to A. Padilla at Geomatrix, cc: KMEP	1	!				:WEK	(7								
Ulrect Bill KME/VS-PP - Steve Deribaugn-re "J" flags required/Use lowest possible dete	Direct biii KMEP/SFPP - Steve Deribaugn-ret. AFE# 81195 "J" flags required/Use lowest possible detection limit - all	r. ArE# 81195 ction limit - all methods	1195 t - all me	thods.		(MSF0	S-DCA			(0209						
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SAMPLE ID (AB	DESCRIPTION	DATE	TIME	RIX -	,)il & Greas PH-g (C5-	(318;38)	ettleable S otal Suspe	henolics (J,(IV)1J,@	o muinələ					
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Relinguished by: (Signature)				Received by: (Signature)	by: (Sign	nature)								Date:	Time:	
Revised: 07/23/09																



WORK ORDER #: 10-05- □ □ 2 3

SAMPLE RECEIPT FORM

Box <u>/</u> of <u>/</u>

CLIENT: KMEP	DATE:	05/14/	10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozer Temperature 2 • / °C + 0.5 °C (CF) = 2 • 6 °C G G G G G G G G G G G G G G G G G G	☑ Blank ay of sampli urier.	☐ Sample ng. Initial: _	p.L
CUSTODY SEALS INTACT: Cooler	□ N/A	Initial: _ Initial: _	bC bC
	Yes		N/A
Chain-Of-Custody (COC) document(s) received with samples			
COC document(s) received complete			
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC			
Sample container label(s) consistent with COC			
Sample container(s) intact and good condition	,		
Proper containers and sufficient volume for analyses requested			
Analyses received within holding time			
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	•		
Proper preservation noted on COC or sample container	Z		
☐ Unpreserved vials received for Volatiles analysis	_		
Volatile analysis container(s) free of headspace			
Tedlar bag(s) free of condensation CONTAINER TYPE:			7
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve() □EnCore	s [®] □Terra	Cores [®] □	
Water: □VOA ☑VÕAh □VOAna₂ □125AGB □125AGBh □125AGBp	2		
□500AGB □500AGJ Ø500AGJs □250AGB □250CGB □250CGBs	Ø1PB ;	Z500PB □500)PBna
□250PB 🗹250PBn □125PB □125PB z nna □100PJ □100PJna₂ □		□	
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#:			Del
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 znna: ZnAc2+NaOH f	•	Reviewed by: <u>/</u> Scanned by: _	vs C





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,

Calscience Environmental

mike 2 for

Laboratories, Inc.

Stephen Nowak

Project Manager

NELAP ID: 03220CA

CSDLAC ID: 10109

SCAQMD ID: 93LA0830

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

FAX: (714) 894-7501





AMEC Geomatrix, Inc.

510 Superior Avenue

Work Order No:

Suite 200

Preparation:

Preparation:

EPA 3020A Total

Method:

EPA 6020

Project: SFPP - Norwalk Site Page 1 of 1

Client Sample Number		Lab Sam Numbe	•	ate/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-21		10-05-1	705-1-A 0	05/21/10 14:15	Aqueous	ICP/MS 03	05/21/10	05/21/10 20:54	100521S05
Comment(s): -Results wer	e evaluated to the MDL	, concentrations	>= to the MD	L but < Rl	_, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>		<u>DF</u>	Qual	<u>Units</u>		
Selenium	0.00411	0.00100	0.00055	4 1			mg/L		
Method Blank		096-06-	003-2,808	N/A	Aqueous	ICP/MS 03	05/21/10	05/21/10 19:27	100521\$05
Comment(s): -Results wer	e evaluated to the MDL	, concentrations	>= to the MD	L but < Rl	_, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	ļ	<u>DF</u>	Qual	<u>Units</u>		
Selenium	ND	0.00100	0.00055	4 1			mg/L		

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AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 05/21/10 10-05-1705 EPA 3020A Total 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
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	49	51	59-125	5	0-12	3

Mulling.



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received Work Order No: Preparation: Method: 05/21/10 10-05-1705 EPA 3020A Total 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>	PDS %REC	PDSD %REC	%REC CL	RPD RPD (CL Qualifiers
Selenium	82	82	75-125	1 0-12	2





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

10-05-1705 EPA 3020A Total EPA 6020

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrum		ate oared	Date Analyze	ed	LCS/LCSD Batc Number	h
096-06-003-2,808	Aqueous	ICP/MS	03 05/2	05/21/10 05		05/21/10 10		
<u>Parameter</u>	LCS 9	%REC	LCSD %REC	%RE	C CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	100)	100	80-	-120	0	0-20	

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Glossary of Terms and Qualifiers



Work Order Number: 10-05-1705

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
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) 89
		Inc.
cience	vironmental	aboratories, Inc.

CHAIN OF CUSTODY RECORD DATE: 5/21//0

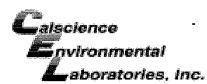
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PAGE:

TEL: (714) 895-5494 . FAX: (714) 894-7501

Revised: 07/23/09

7 of 8



WORK ORDER #: 10-05- 1 7

SAMP	LE R	ECEI	PT F	FOR	M
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Cooler of

Page 8 of 8

DATE: 05/21/10 CLIENT: Kinder Morgan Energy TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not frozen) 3 . $3 \cdot 3 \cdot C + 0.5 \cdot C \cdot (CF) = 3 \cdot 7 \cdot C$ ☐ 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. Initial: ☐ Filter ☐ Metals Only ☐ PCBs Only Ambient Temperature:

Air **CUSTODY SEALS INTACT:** ✓ Not Present Initial: ☐ No (Not Intact) □ N/A ☐ Cooler Not Present Initial: //25c □ Sample ☐ No (Not Intact) N/A **SAMPLE CONDITION:** No 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...... □ Z Tedlar bag(s) free of condensation..... □ \mathcal{A} CONTAINER TYPE: Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve (_____) □EnCores® □TerraCores® □___ Water: □VOA □VOAh □VOAna2 □125AGB □125AGBh □125AGBp □1AGB □1AGBna2 □1AGBs □500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB □500PB □500PBna

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

10.37

Air: □Tedlar[®] □Summa[®] Other: □ Trip Blank Lot#:_____ Labeled/Checked by: <u>M</u>\\(\sum_{\text{\subset}}\)

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered Scanned by: \\ \frac{\tau}{5} \in \frac{\tau}{5} \)

Reviewed by:





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,

Calscience Environmental

Laboratories, Inc.

Stephen Nowak Project Manager

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

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: 05/25/10 10-05-1898 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number		Lab Sam Numbe	•	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-05-25		10-05-1	898-1-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 >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Parameter Parameter	Result	<u>RL</u>	MDL	<u>!</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00417	0.00100	0.00055	4 1			mg/L		
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 >= to the MDL but < RL, if found, are qualified with a "J" flag.									
Parameter Parameter	Result	<u>RL</u>	MDL	<u>!</u>	<u>DF</u>	Qual	<u>Units</u>		
Selenium	ND	0.00100	0 00055	./ 1			ma/l		

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 05/25/10 10-05-1898 EPA 3020A Total 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>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	63	58	59-125	8	0-12	3

MMM_



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received Work Order No: Preparation: Method: 05/25/10 10-05-1898 EPA 3020A Total 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	100525\$01
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	RPD RPD	CL Qualifiers
Selenium	83	84	75-125	2 0-12	2





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

10-05-1898 EPA 3020A Total EPA 6020

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instru	ment	Date Prepa		Date Analyze	ed	LCS/LCSD Bate Number	:h
096-06-003-2,814	Aqueous	ICP/M	S 03	05/25/	10	05/25/1	0	100525L01	
Parameter	ICS	%REC	LCSD %	REC	%REC	CI	RPD	RPD CL	Qualifiers
Selenium	101		101	IKLO	80-1		1	0-20	Qualifiers

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Glossary of Terms and Qualifiers



Work Order Number: 10-05-1898

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

raboratories, Inc.

7440 LINCOLN WAY

CHAIN OF CUSTODY RECORD

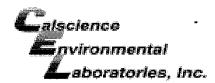
DATE: 35-35-10

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PAGE:

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

LABO	LABORATORY CLIENT:					CLIENT	CLIENT PROJECT NAME / NUMBER:	/NUMBER:				· ON O d		Г
King	Kinder Morgan Energy Partners, Attn: Steve Defibaugh	artners, Attn: Steve D	efibaugh			<u>.</u>		41:0 41				: : :		
1100 TC	ADDRESS: 1100 Town & Country Road	Ö,				PROJEC	PROJECT CONTACT:	IK SITE			;	QUOTE NO		Т
CITY						Pati	Patrick Loya	/						
Orar	Orange, CA 92868					SAMPLE	R(S): (SICHART	RE)				LAB USE ONLY		
TEL:	714-560-4802	FAX: 714-560-4601	_	E-MAIL patrick loya@ki	L loya@kindermorgan.com	月	/h	9					861811	[2]
TURN	TÜRNAROUND TIME								0	, GETOD	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	919		
	SAME DAY 24 HR	☐ 48HR ☐ 72 HR		5 DAYS	10 DAYS	,			אַנוּ	REQUESTED ANALTSIS	ANALT	SIS		
SPEC	SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	COSTS MAY APPLY)												Γ
	RWQCB REPORTING	ARCHIVE SAMPLES UNTIL	S UNTIL	/										
SPEC	SPECAL INSTRUCTIONS Report to A Padilla at Geomatrix cc. KMED	enmatrix cc. KMED							· · · · · ·					
<u>ה</u>	Direct Bill KMEP/SFPP - Steve Defibaugh	Steve Defibaugh												
יי ב	"J" flags required/Use lowest possible detection limit - all	owest possible detec	tion limit	_	nethods.		····							
[A8	SAMPLEID	LOCATION/	SAME	SAMPLING	MAT- CONT.	្គ ក្ uinə								
S S		DESCRIPTION	DATE	TIME	RIX	ləS						Com	Comments	
	EFF. 05 . 25	Discharge Tank	&5-21-10	1020	WW 1	X						Temperature* =		
												(Temp. as	(Temp. as sampled*)	
	1													
Relinq	Relinquished by: (Signature)				Received by	Received by: (Signature) $\Omega_{\mathcal{M}}$	3	ra .	1			Date:	Time: 13 0/	Ī
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Revis	Revised: 07/23/09													7 of 9
														9



WORK ORDER #: 10-05- 🗆 🗷 😤

SAMPLE RECEIPT FORM

Cooler <u>/</u> of <u>/</u>

CLIENT: KINDER MORGAN	DATE: _	05 /२४ / 10				
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not frozen) Temperature/						
CUSTODY SEALS INTACT: Cooler	□ N/A	Initial: <u>/</u> / Initial: <u>/</u> //				
SAMPLE CONDITION:	Yes	No N/A				
Chain-Of-Custody (COC) document(s) received with samples	•					
COC document(s) received complete	. 🗸					
\square Collection date/time, matrix, and/or # of containers logged in based on sample labels						
\square No analysis requested. \square Not relinquished. \square No date/time relinquished.						
Sampler's name indicated on COC						
Sample container label(s) consistent with COC	BY/S					
Sample container(s) intact and good condition						
Proper containers and sufficient volume for analyses requested	7					
Analyses received within holding time						
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	. 🗆					
Proper preservation noted on COC or sample container	. 1					
☐ 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() □EnCore	s [®] □Terra	Cores® □				
Water: □VOA □VOAh □VOAna2 □125AGB □125AGBh □125AGBp	□1AGB [□1AGB na ₂ □1AGB s				
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs	s □1PB [□500PB □500PB na				
□250PB ଢ250PBn □125PB □125PB znna □100PJ □100PJ na₂ □	□					
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#: Labeled/Checked by: <u>\/ (</u>						
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: \(\frac{1}{2} \) \(\						

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WORK ORDER #: 10-05- □ 8 9 8

SAMPLE ANOMALY FORM

SAMPLE	es - co	NTAINE	ERS & L	ABELS:			Comme	ents:		
□ Samp □ Holdi □ Insuf □ Impre □ No pi □ Samp □ Samp □ Samp □ Samp □ □ Samp □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ble(s)/Coing time ficient of coper preservate label ble cont water project water project ble cont water project ble cont ble cont ble cont ble cont ble label ble labe	ontainer expired quantitie ntainer(s eservative cive note s illegib d(s) do n ID Informa ntainer(s s ainer(s) oresent i t Label(s containe y (Not tr g (transi	(s) received — list sands for analyte used — list sands end on CO older — note of match the Collection of sample end on sample end for	list test C or label – test/containe COC – Note	LISTED ad test est list test & er type e in comm	on COC notify lab nents nents comments bmitted) Bag*)		action	DATE PER 05/28	LABER IS
HEADSI	PACE -	Contai	ners wit	h Bubble >	6mm o	r ¼ inch:				
Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	A	nalysis
<u> </u>										
Comment	ts:									
*Transferr	ed at Clie	ent's requ	est.				lr	nitial / Da	ate: <u>//</u>	05/25/10
									SOP	T100_090 (01/29/10)





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,

Calscience Environmental

Laboratories, Inc.

Stephen Nowak Project Manager

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

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: 06/07/10 10-06-0493 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Page 1 of 1

Client Sample Number		Lab Sam Numbe	•	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-07		10-06-0)493-1-A 0	06/07/10 10:05	Aqueous	ICP/MS 03	06/07/10	06/07/10 19:22	100607L02
Comment(s): -Results w	ere evaluated to the MDL	, concentrations	>= to the MD	L but < RL	_, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00704	0.00100	0.000554	4 1			mg/L		
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 w	ere evaluated to the MDL	, concentrations	>= to the MD	L but < RL	_, if found, ar	e qualified with	a "J" flag.		
Parameter Parameter	Result	<u>RL</u>	<u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	ND	0.00100	0.000554	4 1			ma/l		

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DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/07/10 10-06-0493 EPA 3020A Total 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>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	73	75	59-125	2	0-12	

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Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received Work Order No: Preparation: Method: 06/07/10 10-06-0493 EPA 3020A Total 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
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	RPD RPD	CL Qualifiers
Selenium	74	74	75-125	1 0-12	2





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: N/A 10-06-0493 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Dat Prepa		Date alyzed	LCS/LCSD Bato Number	h
096-06-003-2,832	Aqueous	ICP/MS 03	06/07	/10 06	/07/10	100607L02	
<u>Parameter</u>	LCS 9	6REC LCS	SD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	101		100	80-120	1	0-20	

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Glossary of Terms and Qualifiers



Work Order Number: 10-06-0493

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

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CHAIN OF CUSTODY RECORD

DATE: 06-87-10

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Kinder Morgan Energy Partners, Attn: Steve Defibaugh	ers, Attn: Steve De	fibaugh			; °	900	SEED Normal Sites	<u> </u>						
1100 Town & Country Road) Æ	PROJECT CONTACT:	ACT:					QUOTE NO.:		Т
CITY:					n T	Patrick Loya	oya	/						
nge, CA 92868					æ	SAMPLER(S): (SHGNATURE)	(GNATURE)		$ \setminus $) BSF		80.5 F
TEL: 714-560-4802 FAX:	714-560-4601		E-MAIL patrick loya@kindermorgan.com	idermorgan.c	SI SI	1/1		Š	\			-90	21611510	
TURNAROUND TIME					+									Г
SAME DAY 24 HR	48HR 🔲 72 HR	5 DAYS	□ Xs	10 DAYS	1				REGU	REQUESTED ANALYSIS	ANAL	SIS		_
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	S MAY APPLY)				H									Ī
RWQCB REPORTING	ARCHIVE SAMPLES UNTIL	S UNTIL	_	_	•									
SPECIAL INSTRUCTIONS					Π									
Report to A. Padilla at Geomatrix, cc: KMEP	natrix, cc: KMEP						-							
"J" flags required/Use lowest possible detection limit - all methods.	ive Delibaugli ist possible detect	ion limit -	ali meth	ods.										
-					U	· · · · ·								
	LOCATION/	SAMPLING	NG	MAT. CONT.	_									
USE SAMPLE ID	DESCRIPTION	DATE	TIME	X	ələS							Corr	Comments	
1 EFF. 00 . 07 [Discharge Tank	01,12.90	که ۱۵	ww	1							Temperature* =		
												:		
												(Temp. as	(Temp. as sampled*)	
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Revised: 07/23/09				:										7 of 8
														3



WORK ORDER #: 10-06- @ # 9 3

SAMPLE RECEIPT FORM Cooler / of /
KMEP/ Geomatrix DATE: 06/07/10

CLIENT: TOTAL TOTA
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)
Temperature
☐ 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:
CUSTODY SEALS INTACT:
□ Cooler □ □ No (Not Intact) ☑ Not Present □ N/A Initial: □ □ No (Not Intact) ☑ Not Present □ Initial: □ □
□ Sample □ □ No (Not Intact) ☑ Not Present Initial:
SAMPLE CONDITION: Yes No N/A
Chain-Of-Custody (COC) document(s) received with samples
COC document(s) received complete
☐ Collection date/time, matrix; and/or # of containers logged in based on sample labels.
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.
Sampler's name indicated on COC
Sample container label(s) consistent with COC
Sample container(s) intact and good condition
Proper containers and sufficient volume for analyses requested
Analyses received within holding time
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 □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB □1AGBna₂ □1AGBs
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB □500PB □500PB na
□250PB
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#: Labeled/Checked by: <u>\rangle \lambda \lam</u>
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: ### Preservative: h: HCL n: HNO3 nas:NasSsO3 na: NaOH p: HaPO4 s: HaSO4 znna: ZnAca+NaOH f: Field-filtered Scanned by: ###################################





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.

Calscience Environmental Laboratories, Inc.

Stephen Nowak Project Manager

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

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





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

06/09/10 10-06-0752 EPA 3020A Total 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
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
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
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Selenium	ND	0.00100	4		mg/L			





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/09/10 10-06-0752 EPA 3020A Total 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>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	67	69	59-125	4	0-12	

Mulling.



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received Work Order No: Preparation: Method: 06/09/10 10-06-0752 EPA 3020A Total 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
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	RPD RPD (CL Qualifiers
Selenium	91	89	75-125	1 0-12	2





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: N/A 10-06-0752 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrun		Date epared	Date Analyze		LCS/LCSD Bato Number	h
096-06-003-2,837	Aqueous	ICP/MS	03 06	/09/10	06/09/1	0	100609L01	
<u>Parameter</u>	LCS 9	%REC	LCSD %REC	%RI	EC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	101		103	80)-120	3	0-20	

MMM_



Glossary of Terms and Qualifiers



Work Order Number: 10-06-0752

Qualifier *	Definition See applicable analysis comment.
<	Less than the indicated value.
	Greater than the indicated value.
>	
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
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.

Calscience	7440 LINC
nvironmental	GARDEN
Asboratories, Inc.	TEL: (714)

COLN WAY

GARDEN GRO

CHAIN OF CUSTODY RECORD

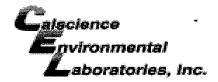
DATE: 06-09-10

P

PAGE:

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

Kinder	LABORATORY CLIENT: (inder Morgan Energy Pa	LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh	efibaugh	:		CLIENT	PROJECT N	CLIENT PROJECT NAME / NUMBER:	i.			P.0	P.O. NO.:		
ADDRESS						SFF	P - Nor	SFPP - Norwalk Site	:						T
1100 Tc	1100 Town & Country Road	ad				PROJE	CT CONTAC	,. (Ď	QUOTE NO.:		
Orange	Orange, CA 92868					SAMPL	FALFICK LOYA SAMPLER(S): (SIGNAFORE)	AFORE)				BVn	LAB USE ONLY		
TEL: 7	714-560-4802	FAX: 714-560-4601		E-MAIL patrick lova@kindermorgan.com	morgan.com	\	Vi	A				0	<u>-</u> 90	0 752	Щ
TURNARO	TURNAROUND TIME		1	:					֓֞֞֜֜֞֜֜֞֜֜֜֜֓֓֓֓֓֓֜֟֜֜֓֓֓֓֓֓֓֓֓֜֜֟֜֓֓֓֓֓֡֓֜֜֜֡֓֓֓֡֓֜֜֡֓֓֡֓֡			9 2 2			Г
SAI	SAME DAY 24 HR	☐ 48HR ☐ 72 HR	R 5 DAYS		10 DAYS				אב	ZOES	REQUESTED ANALTSIS	417515		:	
SPECIAL F	SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	. COSTS MAY APPLY)													Γ
	RWQCB REPORTING	☐ ARCHIVE SAMPLES UNTIL	S UNTIL	//											
SPECIAL II	SPECIAL INSTRUCTIONS Report to A Padilla at G	PECIAL INSTRUCTIONS Report to A Padilla at Geometrix cc. KMED													
Direct	Direct Bill KMEP/SFPP - Steve Defibaugh	Direct Bill KMEP/SFPP - Steve Defibaugh	in timil acit	4	•										
•					j	u									
LAB		LOCATION/	SAMPLING	r	NO. OF	unju			·						
USE	SAMPLE ID	DESCRIPTION	DATE T	TIME RIX									Comments	ıents	
	егг. да. Од	Discharge Tank	06-09-10 143C	C ww	٨	X						Temperature*	ature* =		
												T)	emp. as	(Temp. as sampled*)	
Relinquist	Relinquished by (Signakure)			Rec	Received by: (Signature)	agnature 3	Grow	J		2	2	Date; 09/10	1/10	Time: 1510	
Relinquist	Relinquished (Signature)			Rec	Received by: (Signature)	Signature						Date:		Time;	Γ
Rejingdist	Reynadished by: (Signature)			Rec	Received by: (Signature)	Signature						Date:		Time:	Pag
Revised	Revised: 07/23/09														7 of 8
															3



WORK ORDER #: 10-06- ☑ 7 5 2

SAMPLE RECEIPT FORM Cooler ___ of ___

CLIENT: KMEP DA	TE: <u>06</u> /	109/10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen) Temperature °C + 0.5 °C (CF) = °C	ank ⊡′Ś	ample
 □ 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		nitial: <u>\</u>
CUSTODY SEALS INTACT:		
□ Cooler □ □ No (Not Intact) □ Not Present □) N/A	Initial:
□ Sample □ □ No (Not Intact) □ Not Present		Initial: <u>YC</u>
SAMPLE CONDITION: Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples		
COC document(s) received complete		
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.	_	
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.		
Sampler's name indicated on COC		
Sample container label(s) consistent with COC		
Sample container(s) intact and good condition		
Proper containers and sufficient volume for analyses requested		
Analyses received within holding time.		
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours		, Z
Proper preservation noted on COC or sample container		
igspace Unpreserved vials received for Volatiles analysis		
Volatile analysis container(s) free of headspace □		Ø
Tedlar bag(s) free of condensation		Ø
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores® □	TerraCores [®]	
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1A	AGB □1AGE	na₂ □1AGBs
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □1	PB □500P	3 □500PB na
□250PB		
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#: Lal	beled/Checke	d by:
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelo Preservative: h: HCL n: HNO ₃ na ₂ :Na ₂ S ₂ O ₃ na: NaOH p: H ₃ PO ₄ s: H ₂ SO ₄ znna: ZnAc ₂ +NaOH f: Field-f	•	
1 10001 401146, 11.1106 11.11103 1102.11020203 110.110011 p. 113104 5, 112004 211110, 211AC2TIVAOT 1; FIEIQ-1	illered Scariffe	CUDV. 71





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.

Calscience Environmental Laboratories, Inc.

Stephen Nowak Project Manager

CA-ELAP

NELAP ID: 03220CA

CSDLAC ID: 10109

SCAQMD ID: 93LA0830





AMEC Geomatrix, Inc. Date Received: 06/11/10 510 Superior Avenue Work Order No: 10-06-1029 Suite 200 Preparation: EPA 3020A Total Newport Beach, CA 92663-3627 Method: **EPA 6020**

Project: SFPP - Norv	walk Site							F	Page 1 of 2
Client Sample Number		Lab Sam Numbe	•	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-11		10-06-1	029-1-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	>= to the	MDL but < R	L, if found, ar	e qualified with	n a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	MDL		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00615	0.00100	0.000	554 1			mg/L		
MW-SF-14		10-06-1	029-2-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	>= to the	MDL but < R	L, if found, ar	e qualified with	n a "J" flag.		
<u>'arameter</u>	Result	<u>RL</u>	MDL		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00206	0.00100	0.000	554 1			mg/L		
MW-02		10-06-1	029-3-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	>= to the	MDL but < R	L, if found, ar	e qualified with	n a "J" flag.		
<u>'arameter</u>	Result	<u>RL</u>	MDL		<u>DF</u>	Qual	<u>Units</u>		
Selenium	0.00559	0.00100	0.000	554 1			mg/L		
GMW-0-11		10-06-1	029-4-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	>= to the	MDL but < R	L, if found, ar	e qualified with	n a "J" flag.		
<u>'arameter</u>	Result	<u>RL</u>	MDL		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00400	0.00100	0.000	554 1			mg/L		
GMW-0-23		10-06-1	029-5-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	>= to the	MDL but < R	L, if found, ar	e qualified with	n a "J" flag.		
<u>'arameter</u>	Result	<u>RL</u>	MDL		<u>DF</u>	Qual	<u>Units</u>		
Selenium	0.00558	0.00100	0.000	554 1			mg/L		
GMW-25		10-06-1	029-6-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	>= to the	MDL but < R	L, if found, ar	e qualified with	n a "J" flag.		
<u>'arameter</u>	Result	<u>RL</u>	<u>MDL</u>		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00571	0.00100	0.000	554 1			mg/L		

DF - Dilution Factor

Qual - Qualifiers





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: 06/11/10 10-06-1029 EPA 3020A Total 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
0 // 0 // 1 // 1 // 1 // 1 // 1		4D D.		1000 1 101			

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

Parameter

Result

RE

MDL

DF

Qual

Units

Selenium

ND

0.00100

0.000554

1

mg/L

Mullion RL - Rep

DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/11/10 10-06-1029 EPA 3020A Total 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>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Selenium	78	78	59-125	0	0-12	

MMM_



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received Work Order No: Preparation: Method: 06/11/10 10-06-1029 EPA 3020A Total 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
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	RPD RPD (CL Qualifiers
Selenium	82	82	75-125	0 0-12	2





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: Preparation: Method: N/A 10-06-1029 EPA 3020A Total EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Dat Analy		LCS/LCSD Batc Number	h
096-06-003-2,844	Aqueous	ICP/MS 03	06/11/10	06/11/	/10	100611L03	
<u>Parameter</u>	LCS %	6REC LCSD	<u>%REC</u>	6REC CL	RPD	RPD CL	Qualifiers
Selenium	101	98		80-120	3	0-20	

MMM_



Glossary of Terms and Qualifiers



Work Order Number: 10-06-1029

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
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.

nvironmental

aboratories, Inc.

7440 LINCOLN WAY

CHAIN OF CUSTODY RECORD

DATE: 06-11-10

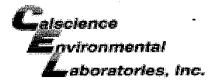
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PAGE:

GARDEN GROVE, CA 92841-1432

TEL: (714) 895-5494 . FAX: (714) 894-7501

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Kinder Morgan Energy Partners, Attn: Steve Defibaugh	artners, Attn: Steve D	efibaugh					777		F.O. NO.:	
1100 Town & Country Road	ad				, E	OFFF - NOTWAIK SITE PROJECT CONTACT:	olte		QUOTE NO:	
CITY:					, T	ames Dye				
Orange, CA 92868					ξ	SAMPLER(S): (SIGNATURE)			LAB USE ONLY	
TEL: 714-560-4802	FAX: 714-560-4601		E-MAIL james dye@kindermorgan.com	idermorgan.co	티			لبيا	回 回	6201
TURNAROUND TIME SAME DAY 24 HR	48HR	25	5 DAYS	10 DAYS	/		REQUESTED ANALYSIS	ANALYSIS		
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	و ا	ENIT	\							
SPECIAL INSTRUCTIONS Report to A. Padilla at Geomatrix. cc: KMEP	Seomatrix, cc: KMEP	OON III	,		T					
Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195 "J" flags required/Use lowest possible detection limit - all m	- Steve Defibaugh-ref owest possible detec	AFE#817		ethods.						
					u					
LAB SAMDIE ID	LOCATION/	SAMPLING	LING	MAT- CONT.	ր բ					
ONLY	DESCRIPTION	DATE	TIME	RIX	Sele				Comr	Comments
(EFF- 0 6 - //	Discharge Tank	01-11-99	1145	MM	1 X			Temp	Temperature* =	
2 MW-5F-14	WELL HEAD	1	1150		7					
3 MM-02	_		ر ارگ		*				Temp. as	(Temp. as sampled*)
4 GmW-0-11			1150		ゾ					
5 GMN-0-23	9	,	1/50		×					
6 GmW- 25	>	$ \wedge $	11504		\star				,	
Relinquished by: (Signature)				Received by: (Signature)	/: (Signa }	MNN YK	n	$b^{ ext{Date:}}/2$	01//	ξ <i>h</i> ξ / _{muL}
Relinquished by (Signature)				Received by	/: (Signa	ure) 🗸		Date:		Time:
Relinquished by: (Signature)				Received by: (Signature)	r. (Signa	ure)		Date:		Pag
Revised: 07/23/09										8
										of
ar.										9



WORK ORDER #: 10-06- □ □

PLE RECEIPT FORM Cooler _ of _ /

CLIENT: KMEP	DATE:	06/11/10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C - 6.0 °C, not froz Temperature 2 8 °C + 0.5 °C (CF) = 3 9 °C Sample(s) outside temperature criteria (PM/APM contacted by:). Sample(s) outside temperature criteria but received on ice/chilled on same Received at ambient temperature, placed on ice for transport by C Ambient Temperature: Air Filter Metals Only PCBs	☐ Blank day of sampl courier.	Sample ing. Initial: _たし
CUSTODY SEALS INTACT: □ Cooler □ □ No (Not Intact) ☑ Not Present □ Sample □ No (Not Intact) ☑ Not Present		Initial: b.C Initial: bC
SAMPLE CONDITION:	Yes	No N/A
Chain-Of-Custody (COC) document(s) received with samples	🗷	
COC document(s) received complete	Z	
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labe	ls.	
\square No analysis requested. \square Not relinquished. \square No date/time relinquished.		
Sampler's name indicated on COC	🗷	
Sample container label(s) consistent with COC	🗹	
Sample container(s) intact and good condition	Ø	
Proper containers and sufficient volume for analyses requested	🗹	
Analyses received within holding time	Z	
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() □EnCo	res® □Terra	Cores® □
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGB	p □1AGB	□1AGB na₂ □1AGB s
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGE	Bs □1PB	□500PB □500PB na
□250PB ☑250PBn □125PB □125PBznna □100PJ □100PJna₂ □_ Air: □Tedlar® □Summa® Other: □ Trip Blank Lot#:		
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#:	Labeled/	Checked by:
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag Preservative: h: HCL n: HNO3 naz:NazSzO3 na: NaOH p: H3PO4 s: H3SO4 znna: ZnAc3+NaOH	E: Envelope	Reviewed by: MSC





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,

Calscience Environmental Laboratories, Inc. Stephen Nowak

Project Manager

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

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





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

Project: SFPP - Norwalk Site

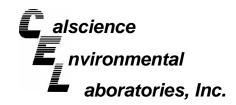
Page 1 of 1

Client Sample Number		Lab Samp Number	le	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-06-25		10-06-20	58-1-D	06/25/10 11:10	Aqueous	GC 18	06/30/10	06/30/10 15:54	100630B01
Comment(s): -Results were eva	luated to the MDL,	, concentrations >	= to the N	IDL but < RI	_, if found, ar	e qualified with	a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u>	MDL		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	REC (%)	Control Limits	MDL			Qual			
1,4-Bromofluorobenzene	90	38-134							
Method Blank		099-12-2	47-4,317	N/A	Aqueous	GC 18	06/30/10	06/30/10 10:14	100630B01

Comment(s): -Results were eval	luated to the MDL,	concentrations >	= to the MD	DL but < RL, if found	, are qualified v	vith a "J" flag.
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
TPH as Gasoline	ND	100	48	1		ua/l
IFII as Gasonine	ND	100	40			ug/L
Surrogates:	<u>REC (%)</u>	Control Limits	<u>MDL</u>		<u>Qual</u>	
1.4-Bromofluorobenzene	80	38-134				

DF - Dilution Factor

Qual - Qualifiers





80-120

92

AMEC Geomatrix, Inc. Date Received: 06/25/10 510 Superior Avenue Work Order No: 10-06-2058 Suite 200 Preparation: **EPA 5030B** Method: Newport Beach, CA 92663-3627 **EPA 8260B** Units: ug/L

Project: SFPP - Norw	alk Site										Page	e 1 of	<u>1</u>
Client Sample Number				Sample mber		Date/Time Collected	Matrix	Instrument	Date Prepar		Oate/Time Analyzed	QC Bat	ch ID
EFF-06-25			10-06	6-2058-1	-A	06/25/10 11:10	Aqueous	GC/MS S	06/25/	10	06/26/10 07:28	100625	L03
Comment(s): -Results were	e evaluated to the	ne MDL, c	oncentra	itions >=	to the N	MDL but < RL	, if found, are	e qualified wi	ith a "J" flag	g .			
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>			Result	<u>RL</u>	MDL	<u>DF</u>	Qua
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-Bu	tyl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	REC (%)	Control Limits	<u>Q</u> ı	<u>ual</u>		Surrogates:			REC (%)	Contr Limits		<u>ual</u>	
Dibromofluoromethane	126	80-126				1,2-Dichlor	oethane-d4		125	80-13	31		
Toluene-d8	99	80-120				1,4-Bromofl	luorobenzene	Э	83	80-12	20		
Method Blank			099-1	14-001-1	,256	N/A	Aqueous	GC/MS S	06/25/	10	06/26/10 01:51	100625	iL03
Comment(s): -Results were	e evaluated to the	ne MDL, c	oncentra	itions >=	to the N	MDL but < RL	, if found, are	e qualified wi	ith a "J" flag	j .			
<u>Parameter</u>	Result	<u>RL</u>	MDL	DF	Qual	<u>Parameter</u>			Result	RL	MDL	<u>DF</u>	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-Bu	tyl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1		-		•					
Currogatos	DEC (9/)	Control	0.	ıol		Surrogates:			REC (%)	Contr	·ol 0	lual	

Comment(s)Nesults were eva	ilualeu lu lii	e MDL, CC	nice ili alio	115 >=	to the ivi	DE Dui < RE, il Touriu, are qualified wit	ira J nay	•			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	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							
Surrogates:	REC (%)	Control	Qual			Surrogates:	REC (%)	Control	<u>Qua</u>	l	
-	, ,	<u>Limits</u>						<u>Limits</u>			
Dibromofluoromethane	106	80-126				1,2-Dichloroethane-d4	101	80-131			

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

Toluene-d8

80-120

1,4-Bromofluorobenzene





AMEC Geomatrix, Inc. 510 Superior Avenue

Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation:

Method:

06/25/10 10-06-2058

EPA 3020A Total EPA 6020

mg/L

Project: SFI	PP - Norwa	alk Site				Units:				Page	mg. e 1 of	
Client Sample Nu	mber			b Sample Number		Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed		atch 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	10062	5L01
Comment(s):	-Results were	e evaluated to the	e MDL, concen	trations >	= to the I	MDL but < RL,	if found, are	e qualified wit	h a "J" flag.			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Re</u>	sult	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>
Copper	0.00103	0.00100	0.000105	1		Selenium	0.00	0386	0.00100	0.000554	1	
Method Blank			09	6-06-003	-2,873	N/A	Aqueous	ICP/MS 03	06/25/10	06/25/10 18:03	10062	5L01
Comment(s):	-Results were	e evaluated to the	e MDL, concen	trations >	= to the I	MDL but < RL,	if found, are	e qualified wit	h a "J" flag.			
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Parameter</u>	<u>Re</u>	sult	<u>RL</u>	<u>MDL</u>	DF	Qual
Copper	ND	0.00100	0.000105	1		Selenium	ND		0.00100	0.000554	1	

DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/25/10 10-06-2058 EPA 7470A Total 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 we	ere evaluated to the MDL, co	oncentrations >= to the	MDL but < RL	., if found, ar	e qualified with	n a "J" flag.		
<u>Parameter</u>	Result	<u>RL</u> <u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.000	00177 1			mg/L		
Method Blank		099-12-510-71	N/A	Aqueous	Mercury	06/25/10	06/25/10 17:32	100625L05
Comment(s): -Results we	ere evaluated to the MDL, co	oncentrations >= to the	MDL but < RL	., if found, ar	e qualified with	n a "J" flag.		
<u>Parameter</u>	<u>Result</u>	<u>RL</u> <u>MDL</u>	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		

Mulling RL - Rep

DF - Dilution Factor , Qual - Qualifiers





AMEC Geomatrix, Inc.

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

Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site Page 1 of 1

Client Sample Number			Lab Sample	Numbe	r Date Collected	Matri	x		
EFF-06-25			10-06-205	58-1	06/25/10	Aqueo	ous		
Comment(s): (24) Results were	evaluated to the	MDL, con	centrations	>= to th	e MDL but <	RL, if four	nd, are qualified wi	th a "J" flag.	
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qual	<u>Units</u>	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	Aque	ous		
Comment(s): (24) Results were	evaluated to the	MDL, cond	centrations	>= to th	ne MDL but	< RL, if four	nd, are qualified wi	th a "J" flag.	
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>	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







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/25/10 10-06-2058 EPA 3005A Total 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
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Copper Selenium	92 81	90 80	80-120 80-120	2	0-20 0-20	

MMM_



Quality Control - PDS / PDSD



AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received Work Order No: Preparation: Method: 06/25/10 10-06-2058 EPA 3005A Total 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
<u>Parameter</u>	PDS %REC	PDSD %REC	%REC CL	RPD RP	D CL Qualifiers
Copper Selenium	92 82	91 80	75-125 75-125	_	-20 -20





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

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

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	P	Date Analyzed	MS/MSD Batch Number
10-06-2234-1	Aqueous	GC 18	06/30/10	(06/30/10	100630\$01
<u>Parameter</u>	MS %REC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	98	98	68-122	0	0-18	

MM.____





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/25/10 10-06-2058 EPA 7470A Total 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>	MS %REC	MSD %REC	%REC CL	RPD RPD CL	Qualifiers
Mercury	97	98	57-141	1 0-10	

MMM_





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: 06/25/10 10-06-2058 EPA 5030B 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
<u>Parameter</u>	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	

MMM_





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Date Received: Work Order No:

10-06-2058

N/A

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

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



Quality Control - Duplicate



AMEC Geomatrix, Inc. 510 Superior Avenue

Work Order No:

Suite 200

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Date Received:

10-06-2058

Matrix: Aqueous or Solid

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







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

10-06-2058 EPA 3020A Total

N/A

thod: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bato Number	ch
096-06-003-2,873	Aqueous	ICP/MS 03	06/25/10	06/25/10	100625L01	
<u>Parameter</u>	LCS %	REC LCSD	%REC %F	REC CL RPD	RPD CL	Qualifiers
Copper	105	105	8	30-120 0	0-20	
Selenium	97	99	8	30-120 2	0-20	







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

10-06-2058 EPA 5030B EPA 8015B (M)

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyz		LCS/LCSD Batc Number	h
099-12-247-4,317	Aqueous	GC 18	06/30/10	06/30/1	0	100630B01	
<u>Parameter</u>	LCS %	REC LCSD	%REC %	REC CL	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	96	96		78-120	0	0-10	

RPD - Rel





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

10-06-2058 EPA 7470A Total EPA 7470A

N/A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba Number	tch
099-12-510-71	Aqueous	Mercury	06/25/10	06/25/10	100625L05	
<u>Parameter</u>	LCS %	REC LCSD	%REC %F	REC CL R	PD RPD CL	Qualifiers
Mercury	98	97	8	35-121 1	0-4	

MMM_





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

Date Received: Work Order No: Preparation:

10-06-2058 EPA 5030B

N/A

Newport Beach, CA 92663-3627

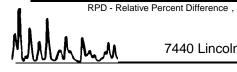
Method: **EPA 8260B**

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	100625L	03
<u>Parameter</u>	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







AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Date Received: Work Order No:

N/A 10-06-2058

Newport Beach, CA 92663-3627

Project: SFPP - Norwalk Site

Matrix:	Aqueous	or Solid
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<u>Parameter</u>	<u>Method</u>	Quality Control Sample ID	<u>Date</u> Extracted	<u>Date</u> <u>Analyzed</u>	LCS % REC	LCSD % REC	%REC CL	<u>RPD</u>	RPD CL	<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	

Mulling.



Glossary of Terms and Qualifiers



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.
В	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: $\mathcal{O}(6/25)/0$ (Temp. as sampled*) 200 79.8 Temperature* = _ Temperature* = _ LAB USE ONLY P QUOTE NO.: P.O. NO. Monthly REQUESTED ANALYSIS PAGE: TAT AH 42 no muinala2 × Hg,Cr(VI),Cu(1669,7199,6020) × × SFPP - Norwalk Site Phenolics (420.1) Received by: (Signature) (2.031) sbiloS behanged Solids (160.2) × James Dye SAMPLER(S): (SIGNAT PROJECT CONTACT MRE;BTEX;1,1-DCA;1,2-DCA;MEK(8260B) TPH-g (C5-C14 Only) (8015M) × Received by: (Signature) Oil & Grease (413.1) × NO. OF 5 ☐ 10 DAYS "J" flags required/Use lowest possible detection limit - all methods. **§** MAT. 0111 045-49 TIME Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195 5 DAYS SAMPLING TEL: (714) 895-5494 . FAX: (714) 894-7501 Kinder Morgan Energy Partners, Attn: Steve Defibaugh DATE ARCHIVE SAMPLES UNTIL **GARDEN GROVE, CA 92841-1432** 72 HR 714-560-4601 Report to A. Padilla at Geomatrix, cc: KMEP 7440 LINCOLN WAY LOCATION/ DESCRIPTION 48HR SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY Effluent 1100 Town & Country Road NWQCB REPORTING] SAME DAY | 24 HR aboratories, Inc. EFF. 06-7. 714-560-4802 SAMPLE ID hed by: (Signature) alscience Orange, CA 92868 Revised: 07/23/09 SE



WORK ORDER #: 10-06- ☐ ☐ ☐ 图

SAMPLE RECEIPT FORM	Cooler <u>/</u> of <u>/</u>
	00/25/10

CLIENT: KMEP	DATE: _	06/월/	<u>′10 </u>			
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen) Temperature						
CUSTODY SEALS INTACT: Cooler		lnitial: Initial:				
SAMPLE CONDITION:	Yes	No	N/A			
Chain-Of-Custody (COC) document(s) received with samples						
COC document(s) received complete	🗷					
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labe	ls.					
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.						
Sampler's name indicated on COC	Z					
Sample container label(s) consistent with COC	Z					
Sample container(s) intact and good condition	d					
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: □4ozCĢJ □8ozCGJ □16ozCGJ □Sleeve () □EnĆor						
Water: □VOA DVOAh □VOAna₂ □125AGB □125AGBh □125AGB	p 🗆 1AGB 🛚	□1AGB na₂ 🔀	1AGBs			
□500AGB ☑500AGJ ☑500AGJs □250AGB □250CGB □250CGE	s ∯1PB ∣	□500PB □50	0PB na			
☑250PBn □250PBn □125PB □125PB znna □100PJ □100PJ na₂ □_						
Air: □Tedlar [®] □Summa [®] Other: □ Trip Blank Lot#: Labeled/Checked by: ▽▽						
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by:						
Freservative: IT: HUL IT: HINU3 112: N2:S2U3 112: N2: N2: N2:H2:PO4 8: H2:SO4 znna: ZnAca+N2OF	t: Field-filtered	Scanned by:	11 11//			