

SFPP, L.P.

Operating Partnership

October 26, 2010

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

Re: Effluent Monitoring Report July through September 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 third 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 <u>26th</u> day of <u>October</u> <u>2010.</u> at <u>9:00</u> a.m.

Atyche W

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

Stephen T. Defibaugh (printed name)

Remediation Project Manager\_\_\_\_ (title)



CH2M HILL 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017 Tel 213.228.8271 Fax 714.424.2135

October 28, 2010

407609.A1.05

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

Subject: Effluent Monitoring Report, July 1 to September 30, 2010 (3rd Quarter 2010) SFPP, L.P. Norwalk Station 15306 Norwalk Boulevard, Norwalk, California (NPDES No. CA0063509, CI No. 7497)

Dear Mr. Defibaugh:

This report has been prepared by CH2M HILL, on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), 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 (DFSP) Norwalk, at 15306 Norwalk Boulevard, Norwalk, California (the site).

SFPP performed certain operations, maintenance, and monitoring tasks on the product recovery and groundwater extraction system. SFPP has retained CH2M HILL to prepare this report based on the NPDES monitoring performed by SFPP. This report describes NPDES monitoring activities during the period of July 1 through September 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 (scfm) 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.



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Mr. Stephen Defibaugh Kinder Morgan Energy Partners, L.P. October 28, 2010 Page 2 407609.A1.05

The free product and groundwater extraction portion of the system currently consists of 18 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) GWE system was shut down in August 2008 based on the reduced lateral extent and low concentrations of volatile organic compounds (VOCs) west of the site.

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 offsite 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 Los Angeles RWQCB on November 18, 2008. Treated water is routed through an onsite 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 1,543,274 gallons of groundwater was extracted during the third quarter 2010. This total includes groundwater extracted from the south-central and southeastern areas. No water was extracted from the WSB area. 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.

- On July 9, 2010, the TFE/GWE system was shut down for routine carbon change-out. It was restarted on the same day.
- On July 20, 2010, the TFE/GWE system was shut down due to high-level alarms for the transfer tank. The bag filters were clogged and replaced.
- On August 18, 2010, the TFE/GWE system was shut down due to extracted groundwater flowing out of the transfer tank and onto the treatment pad. The water was contained and did not leave the treatment pad. The high-level float switch on the transfer tank malfunctioned and was replaced on August 19, 2010.
- On August 24, 2010, the remediation system was shut down to replace the power source of the system from a mobile generator to the main power house at the site.
- On September 27, 2010, the remediation system was off due to a citywide power outage. The systems were shut down for the remainder of the week to allow groundwater levels to reach static conditions prior to the second semiannual groundwater sampling event, scheduled for early October 2010.

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# **Routine 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 Orderdesignated monitoring point M-001 – Remediation System Effluent.

Effluent samples were transported to Calscience Environmental Laboratories, Inc. (Calscience) in Garden Grove, California, and Advance Technology Laboratory (ATL) in Las Vegas, Nevada, for analysis. ATL performed analysis for selenium only, while Calscience performed analysis for all effluent water quality parameters. Calscience and ATL are 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 (EPA) guidelines 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.

# Selenium Confirmation Monitoring

In addition to the routine monthly/quarterly compliance samples, additional system water effluent, groundwater, and system water influent samples were sent to the following laboratories during the third quarter 2010 for further analysis of total and dissolved selenium:

- Calscience in Garden Grove, California
- Applied Speciation and Consulting, LLC in Bothell, Washington
- ATL in Las Vegas, Nevada
- Alpha Analytical, Inc., in Sparks, Nevada
- TestAmerica Laboratories, Inc., in Denver, Colorado

The purpose of these additional analyses was to assess whether historical concentrations of selenium in NPDES discharge compliance samples analyzed by Calscience actually exceeded the NPDES discharge limits for selenium. The results of the effluent samples collected as part of the confirmation monitoring are included in Table 3. Laboratory analytical reports and chain-of-custody documents are included in Appendix B. System water influent and groundwater results along with a data quality evaluation for the additional selenium sampling and analysis work will be presented separately in a future letter to the RWQCB.

# Visual Monitoring of Coyote Creek

Visual observations of the receiving water (Coyote Creek) were performed in the vicinity of the discharge point on July 13, August 10, and September 14, 2010. At the time of observation, the tide was observed to be mid on July 13, 2010, high on August 10, 2010, and low on September 14, 2010. The weather condition was sunny and warm during the days Coyote Creek was monitored. The water in Coyote Creek was clear and no oil or grease

Mr. Stephen Defibaugh Kinder Morgan Energy Partners, L.P. October 28, 2010 Page 4 407609.A1.05

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 Compliance Results

As shown in Tables 1 and 2, the results of the effluent monitoring indicate that discharge limitations were met during the reporting period with one exception, temperature. On July 13, 2010, the temperature of the effluent water from the treatment facility was at 86.4 degrees Fahrenheit (°F), which is slightly above the instantaneous maximum limit of 86°F. Based on a review of historical data, the effluent temperature on July 13, 2010, is likely anomalous and not representative. Prior to collecting the temperature measurement, the effluent sample was inadvertently placed in an area exposed to sunlight and extreme outdoor temperature (greater than 90°F) for approximately 5 minutes, which likely increased the effluent water temperature beyond what is considered to be representative. Mr. Mazhar Ali of the RWQCB was notified on July 20, 2010, within 24 hours of having knowledge of this exceedance in temperature.

# Summary of Selenium Confirmation Monitoring Results

Results shown in Table 3 indicate that the results provided by Applied Speciation (0.148 to 0.209 micrograms per liter  $[\mu g/L]$ ) and TestAmerica (less than 1.4  $\mu g/L$ ) are consistently lower than selenium concentrations reported by Calscience (4.13 to 5.03  $\mu g/L$ ). The analytical methods used by the two independent laboratories are similar to those used by Calscience (standard EPA SW-846 Method 6020 or 6020A). However, Applied Speciation also uses an integrated state-of-the-art technology (dynamic reaction cell method) that removes common matrix interference effects known to affect the quantitation of selenium in water.

The selenium concentrations reported by the independent laboratories are all below the NPDES discharge limits for selenium. From these findings, CH2M HILL believes that historical concentrations of selenium in NPDES discharge compliance samples likely have not exceeded the NPDES discharge limits for selenium. Further discussion of these results as well as a data quality evaluation of Calscience's historical selenium data will be provided in a future letter to the RWQCB.

## Waste Hauling

Spent GAC was removed from the site on July 9, 2010. Prominent Systems, Inc. (13095 East Temple Avenue, City of Industry, California 91746-1418) transported 2,000 pounds of spent GAC to California Carbon Co., Inc., at 2825 East Grant Street, Wilmington, California 90744. In addition, a total of 13.48 tons, 14.55 tons, and 11.63 tons of nonhazardous soil was hauled offsite on September 9, September 10, and September 13, 2010, respectively, by Advanced Cleanup Technologies, Inc. (18414 South Santa Fe Avenue, Rancho Dominguez, California 90221). The soil was transported to TPST Soil Recyclers of California (12328 Hibiscus Avenue, Adelanto, California 92301) for disposal.

Mr. Stephen Defibaugh Kinder Morgan Energy Partners, L.P. October 28, 2010 Page 5 407609.A1.05

Should you require any further information, please do not hesitate to me at (213) 228-8271. Sincerely,

CH2M HILL

Dant R. Jalla

Dan Jablonski, REA Project Scientist

 Attachments: Table 1 - Effluent Flow Rate, pH, and Temperature Measurements Table 2 - NPDES Effluent Monitoring Results
 Table 3 - Selenium Confirmation Monitoring Event Results
 Appendix A - Laboratory Analytical Reports and Chain-of-Custody Documents for NPDES Effluent Monitoring
 Appendix B - Laboratory Analytical Reports and Chain-of-Custody Documents for Selenium Confirmation Monitoring Event

# Tables

# TABLE 1 Effluent Flow Rate, pH, and Temperature Measurements<sup>1</sup> Third Quarter 2010 SFPP, L.P. Norwalk, California

Date	Average Flow Rate (gallons per day)	рН	Temperature (Deg F)
Discharge Limits <sup>2</sup>			
Instantaneous Minimum	NE	6.5	NE
Instantaneous Maximum	NE	8.5	86
Maximum Daily	150,000	NE	NE
Results			
7/7/2010	9,579		
7/9/2010	9,456	7.6	84.0
7/13/2010	9,440	7.5	86.4
7/16/2010	9,287		
7/20/2010	9,693	7.5	78.1
7/23/2010	27,702		
7/27/2010	33,005	7.8	81.2
7/30/2010	31,939		
8/3/2010	31,590	7.6	80.4
8/6/2010	32,015		
8/10/2010	10,851	7.5	75.4
8/12/2010	11,738		
8/17/2010	11,823	7.6	78.2
8/19/2010	4,160		
8/20/2010	10,281		
8/24/2010	10,375	7.3	78.6
8/27/2010	15,019		
8/31/2010	26,129	7.5	78.8
9/3/2010	18,364		
9/8/2010	18,807	7.4	75.2
9/10/2010	15,836		
9/14/2010	15,617		
9/17/2010	17,436	7.5	75.4
9/21/2010	15,040	7.4	75.2
9/24/2010	29,029		
9/27/2010	no discharge <sup>3</sup>	no discharge <sup>3</sup>	no discharge <sup>3</sup>
9/30/2010	no discharge <sup>3</sup>	no discharge <sup>3</sup>	no discharge <sup>3</sup>

<u>Notes</u>

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

2. California Regional Water Quality Control Board Waste Discharge Requirements (WDRs).

3. "no discharge" indicates that the product recovery and groundwater extraction system was shut down and no discharge occurred on the date of inspection.

#### **Abbreviations**

Deg F = degrees Fahrenheit

NE = not established

#### TABLE 2 NPDES Effluent Monitoring Results Third Quarter 2010 SFPP. L.P. Norwalk, California

	Sampling	Analysis			Dischar	ge Limits <sup>2</sup>			:	Sample Date and Resu	ılts		
Analyte	Frequency	Method	Units	ML <sup>1</sup>	Monthly	Daily							
					Average	Maximum	July 7, 2010	July 20, 2010	August 3, 2010	August 10, 2010	August 17, 2010	August 25, 2010	September 8, 2010
Temperature	Monthly	field	deg F		NE	86	<u></u> <sup>3</sup>	78.1	80.4	75.4	78.2		75.2
Oil and Grease	Monthly	SM 5520B	mg/L	NE	10	15	ND (<0.88)		ND (<0.88)				ND (<0.88)
TPH-g	Monthly	EPA 8015B (M)	µg/L	NE	NE	100	52 J		ND (<48)				ND (<48)
Settleable Solids	Monthly	SM 2540F	mL/L/hr	NE	0.1	0.3	ND (<0.10)		ND(<0.10)				ND (<0.10)
Total Suspended Solids	Monthly	SM 2540D	mg/L	NE	50	75	4.7		ND (<0.95)				2.1
Phenol	Monthly	EPA 420.1	mg/L	0.050	0.3	NE	0.074 J		ND (<0.046)				ND (<0.046)
Benzene	Monthly	EPA 8260B	µg/L	2.0	1	NE	ND (<0.28)		ND (<0.57)		ND (<0.28)		ND (<0.28)
1,1-Dichloroethane	Monthly	EPA 8260B	µg/L	1.0	5	NE	ND (<0.37)		ND (<0.75)		ND (<0.37)		ND (<0.37)
1,2-Dichloroethane	Monthly	EPA 8260B	µg/L	2.0	0.5	NE	ND (<0.31)		ND (<0.63)		ND (<0.31)		ND (<0.31)
Ethylbenzene	Monthly	EPA 8260B	µg/L	2.0	10	NE	ND (<0.22)		ND (<0.44)		ND (<0.22)		ND (<0.22)
Methyl ethyl ketone	Monthly	EPA 8260B	µg/L	NE	50	NE	ND (<6.9)		ND (<14)		ND (<6.9)		ND (<6.9)
Toluene	Monthly	EPA 8260B	µg/L	2.0	10	NE	ND (<0.33)		ND (<0.65)		ND (<0.33)		ND (<0.33)
Methyl tertiary-butyl ether	Monthly	EPA 8260B	µg/L	NE	13	NE	ND (<0.30)		ND (<0.61)		ND (<0.30)		ND (<0.30)
Total Xylenes	Monthly	EPA 8260B	µg/L	NE	10	NE	ND (<0.45)		ND (<0.91)		ND (<0.45)		ND (<0.45)
Copper	Monthly	EPA 6020	µg/L	0.5	22.28	44.70	0.733 J		0.876 J				1.1
Mercury	Monthly	EPA 7470A	µg/L	0.2	0.051	0.102	ND (<0.0177)		ND (<0.0177)				ND (<0.0348)
Selenium	Monthly	EPA 6020	µg/L	2.0	4.1	8.2	3.94 <sup>4</sup>		1.1 <sup>5,6</sup>	1.8 <sup>5,6</sup>		4 <sup>5</sup>	2.6 <sup>5</sup>
Chromium VI	Monthly	EPA 7199	µg/L	NE	8.12	16.29	ND (<0.057)		ND (<0.041)				ND (<0.041)
Lead	Quarterly	EPA 6020	µg/L	0.5	NE	15		ND (<0.170)					
Turbidity	Quarterly	SM 2130B	NTU	NE	50	75		0.69					

#### 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 (WDRs).

3. -- = not measured or not analyzed.

4. Analyzed by Calscience Laboratories.

5. Analyzed by Advanced Technology Laboratory.

6. Reanalysis results provided by Advanced Technology Laboratory. Initial results for August 3 and August 10, 2010 selenium samples (5.46 µg/L and 4.51 µg/L, respectively) were provided by Calscience Laboratories.

#### Abbreviations

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 (<0.33) = not detected, minimum detection limit in parentheses

NE = not established

RL = laboratory reporting limit

TPH-g = total petroleum hydrocarbons quantified as gasoline

#### TABLE 3 Selenium Confirmation Monitoring Event Results Third Quarter 2010 SFPP, L.P.

#### Norwalk, California

			Calscience	Applied Speciation	TestAmerica
Analysis	Location	Date	Method 6020	Method 6020A (DRC)	Method 6020A
Dissolved Selenium (preserved)	Effluent	07/22/10	5.03	0.148	ND (<1.4)
Total Selenium (preserved)	Effluent	07/22/10	4.88	0.170	ND (<1.4)
Total Selenium (unpreserved)	Effluent	07/22/10	4.13	0.209	ND (<1.4)

Notes

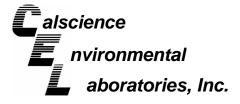
All units are expressed as micrograms per liter (µg/L)

Samples for dissolved selenium analysis were filtered in the field during sampling

ND (<1.4) = not detected, minimum detection limit in parentheses

DRC = dynamic reaction cell method

Appendix A Laboratory Analytical Reports and Chain-of-Custody Documents for NPDES Effluent Monitoring





July 15, 2010

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

### Subject: Calscience Work Order No.: 10-07-0322 Client Reference: SFPP - Norwalk Site

Dear Client:

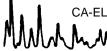
Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/7/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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.

louch

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



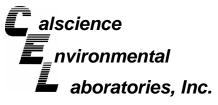
Client:	AMEC Geomatrix, Inc. 510 Superior Avenue	Work Order: Project name:	10-07-0322 SFPP - Norwalk Site
	Suite 200	Received:	07/07/10 11:40
Attn:	Alex Padilla		

#### DETECTIONS SUMMARY

Client Sample ID			Reporting			
Analyte	Result	Qualifiers	Limit	Units	Method	Extraction
EFF-07-07						
Copper	0.000733	J	0.000105*	mg/L	EPA 6020	EPA 3020A Total
Selenium	0.00394		0.00100	mg/L	EPA 6020	EPA 3020A Total
Phenolics, Total	0.074	J	0.046*	mg/L	EPA 420.1	N/A
Solids, Total Suspended	4.7		1.0	mg/L	SM 2540 D	N/A
TPH as Gasoline	52	J	48*	ug/L	EPA 8015B (M)	EPA 5030B

Subcontracted analyses, if any, are not included in this summary.

\*MDL is shown.



Date Received:	07/07/10
Work Order No:	10-07-0322
Preparation:	EPA 5030B
Method:	EPA 8015B (M)
	Work Order No: Preparation:

#### Project: SFPP - Norwalk Site

Client Sample Number		Lab Sampl Number	le	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-07-07		10-07-03	22-1-D	07/07/10 10:45	Aqueous	GC 18	07/08/10	07/08/10 20:54	100708B01
Comment(s): -Results were eval	uated to the MDL,	concentrations >	= to the N	/IDL but < RI	L, if found, ar	e qualified with	n a "J" flag.		
Parameter	Result	<u>RL</u>	MDL		<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	52	100	48	1		J	ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits	MDL			<u>Qual</u>			
1,4-Bromofluorobenzene	88	38-134							
Method Blank		099-12-24	47-4,330	N/A	Aqueous	GC 18	07/08/10	07/08/10 16:33	100708B01
Comment(s): -Results were eval	uated to the MDL,	concentrations >	= to the N	/IDL but < RI	L, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL		<u>DF</u>	Qual	Units		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits	MDL			<u>Qual</u>			
1,4-Bromofluorobenzene	87	38-134							

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

hu

# Page 3 of 25

IN ACCORD

Page 1 of 1



N ACCORDAN

	100, II	10.											
AMEC Geomatrix, Inc.						Date Re	eceived:				07	7/07/10	0
510 Superior Avenue						Work O	rder No:				10-0	7-0322	2
Suite 200						Prepara						5030E	
	0 0007					•							
Newport Beach, CA 9266	3-3627					Method:					EPA	8260E	
						Units:						ug/l	L
Project: SFPP - Norwalk	Site										Page	e 1 of <sup>·</sup>	1
			Lab S	ample		Date/Time			Date	, Г	ate/Time		
Client Sample Number			Nun			Collected	Matrix	Instrument	Prepar		Analyzed	QC Bat	ch ID
EFF-07-07			10-07	-0322-1	-В	07/07/10 10:45	Aqueous	GC/MS EE	07/08/ <sup>,</sup>	10 (	07/09/10 07:41	100708	L02
Comment(s): -Results were eva	luated to th	e MDL, c	oncentrat	ions >=	to the N	IDL but < RL,	if found, are	e qualified wit	h a "J" flag	<b>]</b> .			
Parameter	Result	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			Result	<u>RL</u>	MDL	DF	<u>Qual</u>
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-But	yl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Qu</u>	<u>al</u>		Surrogates:			<u>REC (%)</u>	<u>Contr</u> Limits		ual	
Dibromofluoromethane	107	80-126				1,2-Dichloro	ethane-d4		112	80-13	-		
Toluene-d8	102	80-120				1,4-Bromoflu		9	89	80-12			
Method Blank			099-1	4-001-1	,339	N/A	Aqueous	GC/MS EE	07/08/	10 (	07/09/10 03:04	100708	L02
		- MDL -			40 4b 0 B		if found and		h a "   " (la a				
Comment(s): -Results were eva							if found, are	e qualified wit					Qual
Parameter	Result	<u>RL</u>	MDL	<u>DF</u>	Qual	Parameter			<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	<u>Qual</u>
Benzene	ND	0.50	0.28	1		Toluene			ND	1.0	0.33	1	
2-Butanone	ND	10	6.9 0.27	1 1		p/m-Xylene			ND	1.0	0.45	1 1	
1,1-Dichloroethane	ND	1.0 0.50	0.37 0.31	1		o-Xylene	d Ethor /MT		ND	1.0 1.0	0.24 0.30	1	
1,2-Dichloroethane	ND ND	1.0	0.31	1		Methyl-t-But	yı ⊏uner (ıvrı	DE)	ND	1.0	0.50		
Ethylbenzene <u>Surrogates:</u>	<u>REC (%)</u>	Control	0.22 <u>Qu</u>			Surrogates:			<u>REC (%)</u>	Contr	ol O	ual	
<u>Surrogales.</u>	<u>IKEO (70)</u>	Limits	<u>Q</u> U	<u>ai</u>		<u></u>				Limits	_	0.01.	
Dibromofluoromethane	108	80-126				1,2-Dichloro	ethane-d4		114	80-13	31		
Toluene-d8	99	80-120				1,4-Bromoflu	uorobenzene	9	87	80-12	20		
Method Blank			<b>099-1</b>	4-001-1	,340	N/A	Aqueous	GC/MS EE	07/09/	10 (	07/09/10 15:04	100709	L01
Comment(s): -Results were eva							if found, are	e qualified wit		•			<u> </u>
Parameter	<u>Result</u>	<u>RL</u>	<u>MDL</u>	DF	<u>Qual</u>	Parameter			<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>
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-But	yl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u>	<u>Qu</u>	<u>al</u>		Surrogates:			<u>REC (%)</u>	-		ual	
	407	Limits				4 0 D' 11			440	Limits	-		
Dibromofluoromethane	107	80-126				1,2-Dichloro			113	80-13			
Toluene-d8	98	80-120				1,4-Bromoflu	uorobenzene	9	89	80-12	20		

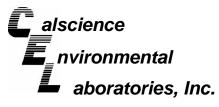
MM

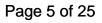
RL - Reporting Limit , DF - Dilution Factor ,

Qual - Qualifiers

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# Page 4 of 25





A DE DE LA ACCORDANCE

AMEC Geon	C Geomatrix, Inc. Date Received:										7/07/′	10		
510 Superio	r Avenue					Work O	rder No:		10-07-0322					
Suite 200			Preparation:								EPA 3020A Total			
Newport Bea	ach, CA 926	63-3627	Method:							EP	PA 602	20		
•				Units:							mg	/L		
Project: SFI	PP - Norwa	lk Site										1		
Client Sample Nu	mber			ab Sample Number	9	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Ba	atch ID		
EFF-07-07			10	)-07-0322	-1-H	07/07/10 10:45	Aqueous	ICP/MS 04	07/07/10	07/07/10 16:10	10070	7L02		
Comment(s):	-Results were e	evaluated to the	MDL, conce	ntrations >	>= to the I	MDL but < RL	, if found, ar	e qualified wi	th a "J" flag.					
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual	Parameter	Re	sult	<u>RL</u>	MDL	DF	<u>Qual</u>		
Copper	0.000733	0.00100	0.000105	1	J	Selenium	0.00	)394	0.00100	0.000554	1			
Method Blank			09	96-06-003	-2,888	N/A	Aqueous	ICP/MS 04	07/07/10	07/07/10 15:31	10070	7L02		
Comment(s):	-Results were e	evaluated to the	MDL, conce	ntrations >	>= to the	MDL but < RL	, if found, ar	e qualified wi	th a "J" flag.					
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual	Parameter	Re	sult	<u>RL</u>	MDL	DF	<u>Qual</u>		
Copper	ND	0.00100	0.000105	1		Selenium	ND		0.00100	0.000554	1			

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EFF-07-07	10-07-0322-1-H	07/07/10 10:45	Aqueous	Mercury	07/07/10	07/07/10 18·00	100707L02
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Project: SFPP - Norwalk Site						F	Page 1 of 1
Newport Beach, CA 92663-3627		Metho	d:			EF	PA 7470A
Suite 200		Prepai	ration:			EPA 74	70A Total
510 Superior Avenue		Work (	Order No	:		10	)-07-0322
AMEC Geomatrix, Inc.		Date F	Received:				07/07/10

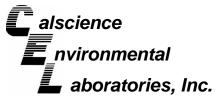
			1	0:45			18:00	
Comment(s): -Results we	ere evaluated to the MDL,	concentrations >=	= to the MDL bu	ıt < RL, if found, a	re qualified wit	h a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500	0.0000177	1		mg/L		
Method Blank		099-12-51	10-72 N//	A Aqueous	Mercury	07/07/10	07/07/10 17:42	100707L02
Comment(s): -Results we	ere evaluated to the MDL,	concentrations >=	= to the MDL bu	ıt < RL, if found, a	re qualified wit	h a "J" flag.		
Parameter	Result	<u>RL</u>	<u>MDL</u>	DF	Qual	<u>Units</u>		
Mercury	ND	0.0000500	0.0000177	1		mg/L		

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# Page 6 of 25

N ACCORDAN



Date Received:

Work Order No:

N ACCORD

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07/07/10

10-07-0322

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

#### Project: SFPP - Norwalk Site

Page 1 of 1 Lab Sample Number Date Matrix Client Sample Number Collected EFF-07-07 10-07-0322-1 07/07/10 Aqueous Comment(s): (24) Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag. MDL Method Parameter RL DF Qual <u>Units</u> Date Prepared Date Analyzed Result 0.074 0.10 0.046 07/12/10 EPA 420.1 Phenolics, Total (24) 1 J mg/L 07/12/10 Chromium, Hexavalent (24) ND 0.057 1 07/07/10 EPA 7199 1.0 ug/L N/A Solids, Total Suspended (24) 4.7 1.0 0.95 1 mg/L 07/09/10 07/09/10 SM 2540 D ND SM 2540 F Solids, Settleable (24) 0.10 0.10 1 mL/L/hr 07/07/10 07/07/10 Oil and Grease (24) ND 1.0 0.88 1 mg/L 07/13/10 07/13/10 SM 5520 B Method Blank N/A Aqueous

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

Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	<u>Qual</u>	<u>Units</u>	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	07/12/10	07/12/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.057	1		ug/L	N/A	07/07/10	EPA 7199
Solids, Total Suspended (24)	ND	1.0	0.95	1		mg/L	07/09/10	07/09/10	SM 2540 D
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	07/13/10	07/13/10	SM 5520 B

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





AMEC Geomatrix, Inc.	Date Received:	07/07/10
510 Superior Avenue	Work Order No:	10-07-0322
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
EFF-07-07	Aqueous	ICP/MS 04	07/07/10		07/07/10	100707S02
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Copper	75	79	72-108	5	0-10	
Selenium	80	87	59-125	8	0-12	

RPD - Relative Percent Difference, CL - Control Limit

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# **Quality Control - PDS / PDSD**



AMEC Geomatrix, Inc. 510 Superior Avenue	Date Received Work Order No:	07/07/10 10-07-0322
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

#### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date	Analyzed I	PDS / PDSD Batch Number
EFF-07-07	Aqueous	ICP/MS 04	07/07/10	07	7/07/10	100707S02
Parameter	PDS %REC	PDSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Copper	87	86	75-125	1	0-10	
Selenium	87	82	75-125	5	0-12	

RPD - Relative Percent Difference, CL - Control Limit

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07/07/10 10-07-0322 EPA 5030B EPA 8015B (M)





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

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
EFF-07-07	Aqueous	GC 18	07/08/10		07/08/10	100708S01
Parameter	<u>MS %REC</u>	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	91	91	68-122	0	0-18	

RPD - Relative Percent Difference, CL - Control Limit

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

Date Received:	07/07/10
Work Order No:	10-07-0322
Preparation:	EPA 7470A Total
Method:	EPA 7470A

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-07-0302-1	Aqueous	Mercury	07/07/10		07/07/10	100707S02
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Mercury	96	97	57-141	1	0-10	

RPD - Relative Percent Difference, CL - Control Limit

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## **Quality Control - PDS / PDSD**



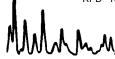
# AMEC Geomatrix, Inc.Date Received510 Superior AvenueWork Order No:Suite 200Preparation:Newport Beach, CA 92663-3627Method:

#### 07/07/10 10-07-0322 EPA 7470A Total EPA 7470A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date A	Analyzed F	PDS / PDSD Batch Number
10-07-0302-1	Aqueous	Mercury	07/07/10	07/	07/10	100707S02
Parameter	PDS %REC	PDSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Mercury	89	90	75-125	1	0-10	

RPD - Relative Percent Difference, CL - Control Limit







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

	0-10-110
Date Received:	07/07/10
Work Order No:	10-07-0322
Preparation:	EPA 5030B
Method:	EPA 8260B

#### Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-07-0415-7	Aqueou	s GC/MS EE	07/08/10		07/09/10	100708S02
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Benzene	107	108	80-120	1	0-20	
Carbon Tetrachloride	102	104	55-151	2	0-20	
Chlorobenzene	100	101	80-120	1	0-20	
1,2-Dibromoethane	112	111	77-125	0	0-20	
1,2-Dichlorobenzene	97	98	78-120	1	0-20	
1,2-Dichloroethane	120	122	80-120	1	0-20	3
1,1-Dichloroethene	83	84	69-129	1	0-20	
Ethylbenzene	109	109	73-127	0	0-20	
Toluene	103	102	80-120	1	0-20	
Trichloroethene	100	105	67-133	5	0-20	
Vinyl Chloride	84	85	67-133	1	0-20	
Methyl-t-Butyl Ether (MTBE)	101	105	65-131	4	0-22	
Tert-Butyl Alcohol (TBA)	89	93	62-134	5	0-20	
Diisopropyl Ether (DIPE)	88	92	64-136	4	0-29	
Ethyl-t-Butyl Ether (ETBE)	86	89	70-124	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	112	113	71-125	1	0-20	
Ethanol	91	88	44-152	3	0-43	

RPD - Relative Percent Difference, CL - Control Limit

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

Date Received:	07/07/10
Work Order No:	10-07-0322
Preparation:	EPA 5030B
Method:	EPA 8260B

#### Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	b	Date Analyzed	MS/MSD Batch Number
10-07-0415-8	Aqueou	us GC/MS EE	07/09/10		07/09/10	100709S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Benzene	107	109	80-120	1	0-20	
Carbon Tetrachloride	105	100	55-151	4	0-20	
Chlorobenzene	103	102	80-120	1	0-20	
1,2-Dibromoethane	113	109	77-125	3	0-20	
1,2-Dichlorobenzene	99	100	78-120	1	0-20	
1,2-Dichloroethane	121	117	80-120	3	0-20	3
1,1-Dichloroethene	83	84	69-129	1	0-20	
Ethylbenzene	114	112	73-127	1	0-20	
Toluene	104	105	80-120	1	0-20	
Trichloroethene	106	107	67-133	1	0-20	
Vinyl Chloride	85	89	67-133	5	0-20	
Methyl-t-Butyl Ether (MTBE)	102	101	65-131	1	0-22	
Tert-Butyl Alcohol (TBA)	90	90	62-134	0	0-20	
Diisopropyl Ether (DIPE)	91	89	64-136	2	0-29	
Ethyl-t-Butyl Ether (ETBE)	88	87	70-124	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	114	116	71-125	1	0-20	
Ethanol	83	84	44-152	0	0-43	

RPD - Relative Percent Difference, CL - Control Limit

MM

# *Calscience nvironmental* Quality Control - Spike/Spike Duplicate *aboratories, Inc.*

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

Date Received: Work Order No:



N/A

10-07-0322

N ACCOR

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	<u>Date</u> Analyzed	<u>Date</u> Extracted	<u>MS%</u> <u>REC</u>	MSD % REC	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	Qualifiers
Chromium, Hexavalent	EPA 7199	EFF-07-07	07/07/10	N/A	98	98	70-130	0	0-25	

RPD - Relative Percent Difference, CL - Control Limit

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Page	16	of	25
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AMEC Geomatrix, Inc.
510 Superior Avenue
Suite 200
Newport Beach, CA 92663-3627

Date Received: Work Order No:

N/A 10-07-0322

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid							
Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL Qualifiers
Solids, Total Suspended	SM 2540 D	10-07-0375-5	07/09/10	7310	7160	2	0-20

RPD - Relative Percent Difference, CL - Control Limit

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N/A



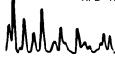


AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627 Date Received: Work Order No: 10-07-0322 Preparation: EPA 3020A Total Method: EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	ch
096-06-003-2,888	Aqueous	ICP/MS 04	07/07/10	07/07/10	100707L02	
Parameter	LCS %	REC LCSD	%REC <u>%</u> F	REC CL RP	D RPD CL	<u>Qualifiers</u>
Copper	104	98	8	80-120 6	0-20	
Selenium	92	92	8	80-120 0	0-20	

RPD - Relative Percent Difference, CL - Control Limit







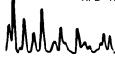
AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627

Date Received:	N/A
Work Order No:	10-07-0322
Preparation:	EPA 5030B
Method:	EPA 8015B (M)

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
099-12-247-4,330	Aqueous	GC 18	07/08/10	07/08/10	100708B01	
Parameter	LCS %	REC LCSD	<u>%REC %</u> F	REC CL RPI	D RPD CL	Qualifiers
TPH as Gasoline	95	95	7	78-120 0	0-10	

RPD - Relative Percent Difference, CL - Control Limit







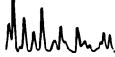
AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200 Newport Beach, CA 92663-3627

Date Received:	N/A
Work Order No:	10-07-0322
Preparation:	EPA 7470A Total
Method:	EPA 7470A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	ch
099-12-510-72	Aqueous	Mercury	07/07/10	07/07/10	100707L02	
Parameter	LCS %	<u>REC</u> <u>LCSD</u>	<u>%REC %F</u>	REC CL RP	D RPD CL	Qualifiers
Mercury	98	96	8	35-121 2	0-4	

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:	



### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal <u>y</u>		LCS/LCSD I Numbe	
099-14-001-1,339	Aqueous	GC/MS EE	07/08/10	07/09/	/10	100708L	02
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Benzene	109	107	80-120	73-127	2	0-20	
Carbon Tetrachloride	104	100	67-139	55-151	3	0-22	
Chlorobenzene	101	100	80-120	73-127	1	0-20	
1,2-Dibromoethane	113	111	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	97	99	79-120	72-127	3	0-20	
1,2-Dichloroethane	120	117	80-120	73-127	2	0-20	
1,1-Dichloroethene	84	85	71-125	62-134	2	0-25	
Ethylbenzene	111	111	80-123	73-130	0	0-20	
Toluene	104	102	80-120	73-127	3	0-20	
Trichloroethene	106	103	80-120	73-127	2	0-20	
Vinyl Chloride	92	91	68-140	56-152	1	0-23	
Methyl-t-Butyl Ether (MTBE)	103	105	75-123	67-131	2	0-25	
Tert-Butyl Alcohol (TBA)	87	91	72-126	63-135	4	0-20	
Diisopropyl Ether (DIPE)	92	91	75-129	66-138	1	0-22	
Ethyl-t-Butyl Ether (ETBE)	87	89	76-124	68-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	115	113	79-121	72-128	1	0-20	
Ethanol	84	91	53-143	38-158	8	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

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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:	

N/A
10-07-0322
EPA 5030B
EPA 8260B

### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal <u>y</u>		LCS/LCSD Numbe	
099-14-001-1,340	Aqueous	GC/MS EE	07/09/10	07/09/	/10	100709L01	
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	<u>RPD</u>	RPD CL	<b>Qualifiers</b>
Benzene	108	107	80-120	73-127	0	0-20	
Carbon Tetrachloride	101	103	67-139	55-151	1	0-22	
Chlorobenzene	102	101	80-120	73-127	0	0-20	
1,2-Dibromoethane	114	110	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	99	100	79-120	72-127	1	0-20	
1,2-Dichloroethane	121	118	80-120	73-127	3	0-20	ME
1,1-Dichloroethene	89	84	71-125	62-134	6	0-25	
Ethylbenzene	111	111	80-123	73-130	0	0-20	
Toluene	102	104	80-120	73-127	1	0-20	
Trichloroethene	105	103	80-120	73-127	2	0-20	
Vinyl Chloride	87	87	68-140	56-152	0	0-23	
Methyl-t-Butyl Ether (MTBE)	102	102	75-123	67-131	0	0-25	
Tert-Butyl Alcohol (TBA)	89	94	72-126	63-135	6	0-20	
Diisopropyl Ether (DIPE)	90	89	75-129	66-138	1	0-22	
Ethyl-t-Butyl Ether (ETBE)	88	88	76-124	68-132	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	114	113	79-121	72-128	1	0-20	
Ethanol	84	88	53-143	38-158	4	0-25	

Total number of LCS compounds : 17 Total number of ME compounds : 1 Total number of ME compounds allowed : 1 LCS ME CL validation result : Pass

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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:



Project: SFPP - Norwalk Site

#### Matrix: Aqueous or Solid

Parameter	Method	<u>Quality Control</u> Sample ID	Date Extracted	<u>Date</u> Analyzed	LCS % REC	LCSD % REC	<u>%REC</u> _ <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Chromium, Hexavalent	EPA 7199	099-05-123-2,635	N/A	07/07/10	100	100	80-120	0	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,241	07/12/10	07/12/10	94	93	80-120	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Work Order Number: 10-07-0322

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

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Calscience Environmental	7440 LINCOLN WAY GARDEN GROVE, CA 92841-1432	141-1432											AIN iii	CHAIN OF CUSTODY RECORD DATE: カフェビフィノン	Y RECORD	
Laboratories. Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	: (714) 894-	7501									PAGE	 ш	-1 0F	-	1 1
LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve		Defibaugh					CLIENT PROJECT NAME / NUMBER	VAME / N	IMBER:					P.O. NO.:		
ADDRESS: 1100 Town & Country Road	oad				-	ROJECT	PROJECT CONTACT:	L Walk						QUOTE NO.:		
city: Orange, CA 92868						Jam	James Dye SAMPLER(S): (SIGNATURE)	ATURE)	$\mathbb{N}$	X				LAB USE ONLY		1.
TEL: 714-560-4802	FAX: 714-560-4601	-	E-MAIL. James dye@kingermorgan.com	inqermorgan.	T	9	/(	/1	16	7		、 、		0-8-0	2220	-
			5 DAYS	10 DAYS	s S	$\mathbb{N}$			K		GUE	REQUESTED ANALYSIS	ANAL	YSIS	, , , ,	
	COSTS MAY APPLY)	ES UNTIL	/		<b></b>		(80928		<u> </u>							T
special INSTRUCTIONS Report to A. Padilla at Direct Bill KMEP/SFPI "J" flags required/Use	Geomatrix, cc: KME • - Steve Defibaugh- lowest possible det	f. AFE# 8 ction lim	1195 it - all me	thods.		(M2108	I,2-DCA;MEK(8		()	(0209'6	IV		· • •. • • • • • • • • • • • • • • • • •			
		SAM	SAMPLING		NO. OF CONT.					612'6	<b>4Т Я</b> Н					
										991)	541					
SAMPLE ID LAB USE ONLY	LOCATION	DATE	TIME	MAT- RIX		Oil & Grease DPH-g (C5-C1		o2 ettleable So Total Suspen	Phenolics (42	Hg,Cr(VI),Cu(	no muinele2			Ğ	Comments	
10 EFF. &) • o7	Effluent	01-21-20	5/20/1	MM	12	××	×	××	×	×	×			Temperature* =		
														Temperature* =		<b></b>
														(Temp. as	(Temp. as sampled*)	<b></b>
														Monthly		
															•	
														2 2 2 2		<u> </u>
	I I															
Relinquished by: (Signatura)				Received by: (Signature)	by: (Sig	nature)	011	101	4	· ·	Ca			Date: フ/フ/こ	Time: // 4-0	1
Relinquished by: (Signature)				Received by. (Signature)	by: (Sig	nature)		+	4					Date:	Time:	T
Relinquished by: (Signature)				Received by: (Signature)	by: (Sig	nature)								Date:	Time:	T

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V Revised: 07/23/09

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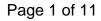
<u></u>				Pa	ge 25 of 25
Calscience Environmental	WOF	RK ORDER #:	10-07	-03	822
aboratories, inc.	SAMPLE REC	EIPT FOR	Мс	ooler <u>/</u>	of/_
CLIENT: KINDER MORGAN I	ENERGY PARTNERS		DATE:	07/0	7/10
TEMPERATURE: Thermome	eter ID: SC1 (Criteria: 0.0 °C	– 6.0 °C, not frozen	)		
Temperature <u>3 . २</u>	°C + 0.5 °C (CF) = 3	_ <u>•</u> 7_℃ □	Blank	<b>⊡</b> Sam	ple
Sample(s) outside temperat	ure criteria (PM/APM contacte	ed by:).			
□ Sample(s) outside temperat	ure criteria but received on ic	e/chilled on same da	y of sampli	ng.	
□ Received at ambient temp	erature, placed on ice for	transport by Cou	urier.		
Ambient Temperature: 🗆 Air	- 🗆 Filter 🗆 Metals C	Dnly 🛛 PCBs C	inly	Initi	al: <u>[] [</u>
		· · · · · · · · · · · · · · · · · · ·	, <u>,</u> ,		• •
	- , , ,	Not Present	□ N/A		ial: <u>β_1</u>
□ Sample □	Dia No (Not Intact)	Not Present		Init	ial: <u>4</u>
SAMPLE CONDITION:		<u> </u>	es	No	N/A
Chain-Of-Custody (COC) docu	iment(s) received with sam	ples	6		
COC document(s) received co			<i></i>		
Collection date/time, matrix, an					
🗆 No analysis requested. 🛛 🛛	Not relinquished.	me relinguished.			
Sampler's name indicated on (					
Sample container label(s) cons					
Sample container(s) intact and					· 🔲
Proper containers and sufficien	nt volume for analyses requ	ested	$\not\!$		
Analyses received within holdi	ng time		7		
pH / Residual Chlorine / Disso	lved Sulfide received within	24 hours			Z
Proper preservation noted on	COC or sample container	· · · · · · · · · · · · · · · · · · ·			
Unpreserved vials received f	or Volatiles analysis				
Volatile analysis container(s) fi	ree of headspace		Z		
Tedlar bag(s) free of condensa CONTAINER TYPE:	ation				
Solid:  40zCGJ  80zCGJ	□16ozCGJ □Sleeve (_	) □EnCores	<sup>®</sup> □Terra(	Cores® 🗆	]
Water: □VOA ☑VÕAh □VO	A <b>na₂</b> □125AGB □125AC	Bh □125AGBp	□1AGB	∃1AGB <b>na</b>	₂,⊉TAGB <b>s</b>
□500AGB □500AGJ Ø500/			<i>L</i> -		3500PB <b>na</b>
□250PB 1250PBn □125PB	□125PB <b>znna</b> □100PJ	□100PJ <b>na₂</b> □	0		]
	Other:  □ Trip Bla				y: <u>₽</u>
Container: C: Clear A: Amber P: Plasti Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na	c G: Glass J: Jar B: Bottle Z: Ziple	oc/Resealable Bag E: E	nvelope <b>R</b>	eviewed b	y: <u>90/(0</u>

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SOP T100\_090 (05/10/10)

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July 27, 2010

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

#### Subject: Calscience Work Order No.: 10-07-1466 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 7/20/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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.

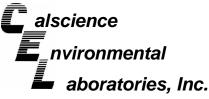
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

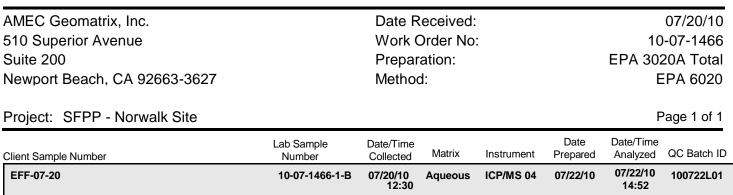
Sincerely,

Monde

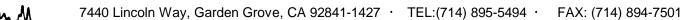
Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

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





							-	
Comment(s): -Results wer	e evaluated to the MDL	, concentrations	>= to the MDL but	ut < RL, if found, a	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Lead	ND	0.00100	0.000170	1		mg/L		
Method Blank		096-06-	003-2,902 N/	A Aqueous	ICP/MS 04	07/22/10	07/22/10 13:30	100722L01
Comment(s): -Results wer	e evaluated to the MDL	, concentrations	>= to the MDL bu	ut < RL, if found, a	e qualified with	n a "J" flag.		
Parameter	Result	<u>RL</u>	MDL	DF	<u>Qual</u>	<u>Units</u>		



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<i>alscience</i> <i>nvironmental</i> <i>aboratories, Inc.</i>	Analytical Report	Sonelac H
AMEC Geomatrix, Inc.	Date Received:	07/20/10
510 Superior Avenue	Work Order No:	10-07-1466
Suite 200	Preparation:	N/A
Newport Beach, CA 92663-3627	Method:	SM 2130 B

Page 3 of 11

Page 1 of 1

Project:	SFPP -	Norwalk Site
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Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-07-20		10-07-1466-1-A	07/20/10 12:30	Aqueous	TUR 3	N/A	07/20/10 17:05	A0720TURD1
Parameter	Result	RL	DF	<u>Qual</u>	<u>Units</u>			
Turbidity	0.69	0.050	1		NTU			

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AMEC Geomatrix, Inc. 510 Superior Avenue	Date Received: Work Order No:	07/20/10 10-07-1466
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-07-1472-1	Aqueous	ICP/MS 04	07/22/10		07/22/10	100722S01
Parameter	<u>MS %REC</u>	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Lead	96	100	79-121	4	0-10	

RPD - Relative Percent Difference, CL - Control Limit

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

194 · FAX: (714) 894-7501



#### **Quality Control - PDS / PDSD**



AMEC Geomatrix, Inc. 510 Superior Avenue	Date Received Work Order No:	07/20/10 10-07-1466
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

#### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-07-1472-1	Aqueous	ICP/MS 04	07/22/10	07/22/10	100722S01
Parameter	PDS %REC	PDSD %REC	%REC CL	<u>RPD</u> <u>RPD</u>	CL Qualifiers
Lead	94	104	75-125	10 0-1	0

RPD - Relative Percent Difference, CL - Control Limit

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Page 6 of 11

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

Date Received:	07/20/10
Work Order No:	10-07-1466
Preparation:	N/A
Method:	SM 2130 B

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
EFF-07-20	Aqueous	TUR 3	N/A	07/20/10	A0720TURD1
Parameter	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Turbidity	0.69	0.70	1	0-25	

RPD - Relative Percent Difference, CL - Control Limit





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

Date Received:	N/A
Work Order No:	10-07-1466
Preparation:	EPA 3020A Total
Method:	EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	ch
096-06-003-2,902	Aqueous	ICP/MS 04	07/22/10	07/22/10	100722L01	
Parameter	LCS %	<u> REC LCSD</u>	<u>%REC %F</u>	REC CL RPD	RPD CL	<u>Qualifiers</u>
Lead	99	10 <sup>4</sup>	8	30-120 3	0-20	

RPD - Relative Percent Difference, CL - Control Limit





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#### **Glossary of Terms and Qualifiers**



Work Order Number: 10-07-1466

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

U <sup>II</sup>	alscience nvironmental	7440 LINCOLN WAY GARDFN GROVF, CA 92841-1432	141-1432										AIN O	DF CUSTO	CHAIN OF CUSTODY RECORD DATE: クラーク	0/-0
	aboratories, Inc.	TEL: (714) 895-5494 . FAX: (71	(; (714) 894-7501	501								PAGE:	 ш	1 0F		
LABOR	LABORATORY CLIENT:					F	LIENT PR	CLIENT PROJECT NAME / NUMBER	IE / NUMBE	i.Ki				P.O. NO.:		Г
	er Morgan Energy F	Kinder Morgan Energy Partners, Attn: Steve Defibaugn	eribaugh			Т	SFPP	SFPP - Norwalk Site	/alk Si	te						
1100	1100 Town & Country Road	oad				Ī	ROJECT	PROJECT CONTACT:		1				QUOTE NO .:		
	orra Orange, CA 92868					_	AMPLER	James Uye SAMPLER(S): (SIGNAJURE)	URED	$\mathbf{k}$				LAB USE ON	٩Ľ	
TEL:	714-560-4802	FAX: 714-560-4601		E-MAIL james dye@kindermorgan.com	ndermorgan.	com	<b>`</b>	$\setminus$	)		$\left  \right $			D-H-I	146	9
	URNAROUND TIME	1 48HR 72 HR	5 DAYS		10 DAYS	ري رو				EZ.	REQUESTED ANALYSIS	STED	ANAL	YSIS		
		L COSTS MAY APPLY)		.	.			┝─			-					
SPECI	PECIAL INSTRUCTIONS	L ARCHIVE SAMPLES UN IIL					<del>.</del>									
۳. تات	port to A Padilla at ect Bill KMEP/SFPP ' flags required/Use	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# 8. ction limi	1195 t - all me	thods.	<u></u>										<u> </u>
						_		_								
			SAMPLING	LING		NO. OF CONT.										
Ő	SAMPLE ID	LOCATION/ DESCRIPTION	DATE	TIME	MAT- RIX		M2) (5M (EPA 60:									
		· · · · · · · · · · · · · · · · · · ·												S	Comments	
	EFF- 07-20	Effluent	31-36-18	1230	M	2	××							Temperature*	= 78./	,
														(Temp. a	(Temp. as sampled*)	
															-	
													-	Quarterly		
										_						
	$\langle$	2														
in all the second																-1
Relinq	Relinquished by: (Signature)				Received	Received by: (Signature)	ature)	MUMM/	an la		CZL VZJ			7/20/10		<i>(</i> <b>)</b> ,
Reling	Relinquigted by: (Signature)				Received	Received by: (Signature)	nature)							Dale: I	. Time:	
Beling	Bélinquished by: (Signature)				Received	Received by: (Signature)	ature)							Date:	Time:	1
Revis	Revised: 07/23/09														-	7
	- - -															

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Calscience ·	wo	RK ORDER #	: 10-0	7-116	166
	LE REC	EIPT FO		;ooler _	<u>_</u> of
CLIENT: <u>KMEP</u>			DATE:	07/2	.0/10
TEMPERATURE: Thermometer ID: SC1         Temperature       ろ C + 0.5 C         Sample(s) outside temperature criteria         Sample(s) outside temperature criteria         Received at ambient temperature, p         Ambient Temperature:       Air	<b>C</b> (CF) = (PM/APM contac but received on i	3.5°C eted by:). ce/chilled on same or transport by C	□ <b>Blank</b> day of sampl ourier.	ling.	ple al:b
CUSTODY SEALS INTACT:					
	lo (Not Intact)	Not Present	: 🗆 N/A		ial: $hC$
□ Sample □ □ N	lo (Not Intact)	Ja Not Present	:	Initi	ial: <u>/ /)&amp;</u>
		· · · · · · · · · · · · · · · · · · ·			
SAMPLE CONDITION:			¥es	No	N/A
Chain-Of-Custody (COC) document(s) re					
COC document(s) received complete					
Collection date/time, matrix, and/or # of con	tainers logged in b	ased on sample label	s.		
		/time relinquished.	_		
Sampler's name indicated on COC					
Sample container label(s) consistent with					
Sample container(s) intact and good con					
Proper containers and sufficient volume f					
Analyses received within holding time					
pH / Residual Chlorine / Dissolved Sulfid	•				A I
Proper preservation noted on COC or sa			•• 🖵		
Unpreserved vials received for Volatiles	•		_		
Volatile analysis container(s) free of head	•				
Tedlar bag(s) free of condensation CONTAINER TYPE:			🖵		
Solid: 0402CGJ 0802CGJ 01602C	GJ □Sleeve (	) □EnCore	əs® ⊡Terra	ıCores <sup>®</sup> ⊏	]
Water: □VOA □VOAh □VOAna₂ □12	25AGB □125A	GBh □125AGBp	D □1AGB	□1AGB <b>na</b> ;	₂ □1AGB <b>s</b>
□500AGB Ø500AGJ □500AGJs □2	50AGB □250	CGB □250CGB	s ⊡1PB	□500PB □	]500PB <b>na</b>
□250PB □250PBn 2125PB □125PB	znna ⊡100PJ	□100PJ <b>na₂</b> □	0_	C	]
Air: □Tedlar <sup>®</sup> □Summa <sup>®</sup> Other: □ Container: C: Clear A: Amber P: Plastic G: Glass J: Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: Na	<b>Trip B</b> Jar B: Bottle <b>Z:</b> Zi	lank Lot#: ploc/Resealable Bag E	<b>Labeled</b> : Envelope	Reviewed b	y: <u>PC</u>
			1	sor	P T100_090 (05/10/1

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SOP T100\_090 (05/10/10)

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WORK ORDER #: 10-07- 7 9 6

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# SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:	Comments:					
<ul> <li>Sample(s)/Container(s) NOT RECEIVED but listed on</li> <li>Sample(s)/Container(s) received but NOT LISTED on</li> <li>Holding time expired – list sample ID(s) and test</li> <li>Insufficient quantities for analysis – list test</li> <li>Improper container(s) used – list test</li> <li>Improper preservative used – list test</li> <li>No preservative noted on COC or label – list test &amp; no</li> <li>Sample labels illegible – note test/container type</li> <li>Sample label(s) do not match COC – Note in commen</li> <li>Sample ID</li> <li>Date and/or Time Collected</li> <li>Project Information</li> <li># of Container(s)</li> </ul>	tify lab					
Sample container(s) compromised – Note in commen	ts					
<ul> <li>Water present in sample container</li> <li>Broken</li> <li>Without Label(s)</li> <li>Air sample container(s) compromised – Note in com</li> <li>Flat</li> <li>Very low in volume</li> <li>Leaking (Not transferred - duplicate bag submi</li> <li>Leaking (transferred into Calscience Tedlar<sup>®</sup> Bag<sup>*</sup>)</li> <li>Other:</li> </ul>	ments					
HEADSPACE – Containers with Bubble > 6mm or $\frac{1}{4}$	inch:					
Sample #         Container ID(s)         # of Vials Received         Sample #         Container ID(s)         # of Vials Received         Sample #	Imple # Container # of Cont. Analysis ID(s) received					
Comments:						
*Transferred at Client's request.	Initial / Date: <u>いえ_07 /20 /10</u> SOP T100_090 (01/29/10					





August 11, 2010

Dan Jablonski CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

# Subject:Calscience Work Order No.:10-08-0165Client Reference:SFPP - Norwalk Site

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 08/03/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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,

Monde

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

A				Р	age 2 of 22	
<u>Ĉ</u> a	Iscience					
	nvironmental					
	aboratories, Inc.					
Client:	CH2M Hill	Worl	order:	10-08-0165		
	1000 Wilshire Blvd.	Proje	ect name:	SFPP - Norwalk Site		
	21st Floor	Rece	eived:	08/03/10 16:48		
Attn:	Dan Jablonski					
	DETECTIONS SUMMARY					

Qualifiers

J

Result

0.000876

0.00546

Subcontracted analyses, if any, are not included in this summary.

Reporting

0.000105\*

0.00100

Units

mg/L

mg/L

Method

EPA 6020

EPA 6020

Extraction

EPA 3020A Total

EPA 3020A Total

Limit

\*MDL is shown.

**Client Sample ID** 

Analyte

EFF-08-03 Copper

Selenium



CH2M Hill	Date Received:	08/03/10
1000 Wilshire Blvd.	Work Order No:	10-08-0165
21st Floor	Preparation:	EPA 5030B
Los Angeles, CA 90017-2417	Method:	EPA 8015B (M)

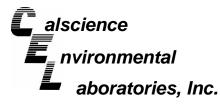
Client Sample Number		Lab Sampl Number	le	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-08-03		10-08-01	65-1-E	08/03/10 16:15	Aqueous	GC 42	08/05/10	08/05/10 12:25	100805B01
Comment(s): -Results were eva	luated to the MDL,	concentrations >	= to the N	/IDL but < RI	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	DF	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits	MDL			<u>Qual</u>			
1,4-Bromofluorobenzene	92	38-134							
Method Blank		099-12-24	47-4,390	N/A	Aqueous	GC 42	08/05/10	08/05/10 06:19	100805B01
Comment(s): -Results were eva	luated to the MDL,	concentrations >	= to the N	/IDL but < RI	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	Result	<u>RL</u>	MDL	<u> </u>	<u>DF</u>	Qual	Units		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits	MDL			<u>Qual</u>			
1,4-Bromofluorobenzene	94	38-134							

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

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

Page 1 of 1





Method:

Units:



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08/03/10

10-08-0165 EPA 5030B

EPA 8260B

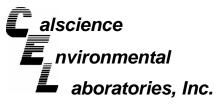
ug/L

CH2M Hill	
1000 Wilshire Blvd.	
21st Floor	
Los Angeles, CA 90017-2417	

	AC
Date Received: Work Order No: Preparation:	

Project: SFPP - Norwalk	Site										Page	e 1 of <i>'</i>	1
Client Sample Number			Lab Sa Num			Date/Time Collected	Matrix	Instrument	Date Prepar		Date/Time Analyzed	QC Bat	ch ID
EFF-08-03			10-08-	0165-1	-A	08/03/10 16:15	Aqueous	GC/MS EE	08/04/1	10	08/04/10 18:36	100804	L01
Comment(s): -Results were eva	aluated to th	ne MDL, c	oncentrat	ions >=	to the N	/IDL but < RL	, if found, are	e qualified wi	th a "J" flag	<b>]</b> .			
Parameter	Result	<u>RL</u>	MDL	DF	<u>Qual</u>	Parameter			Result 8 1	<u>RL</u>	MDL	DF	<u>Qual</u>
Benzene	ND	1.0	0.57	2		Toluene			ND	2.0	0.65	2	
2-Butanone	ND	20	14	2		p/m-Xylene			ND	2.0	0.91	2	
1,1-Dichloroethane	ND	2.0	0.75	2		o-Xylene			ND	2.0	0.47	2	
1,2-Dichloroethane	ND	1.0	0.63	2		Methyl-t-Bu	tyl Ether (MT	BE)	ND	2.0	0.61	2	
Ethylbenzene	ND	2.0	0.44	2									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u>al</u>		Surrogates:			<u>REC (%)</u>	<u>Cont</u>		<u>ual</u>	
Dibromofluoromethane	104	80-126				1.2-Dichloro	ethane-d4		113	80-13	31		
Toluene-d8	100	80-120				1,4-Bromofl	uorobenzene	9	93	80-12	20		
Method Blank			099-14	4-001-1	,610	N/A	Aqueous	GC/MS EE	08/04/1	10	08/04/10 14:26	100804	L01
Comment(s): -Results were eva	aluated to th	ne MDL, c	oncentrat	ions >=	to the N	/IDL but < RL	, if found, are	e qualified wi	th a "J" flag	J.			
Parameter	Result	<u>RL</u>	MDL	DF	Qual	Parameter			Result	<u>RL</u>	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene			ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene			ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene			ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Bu	tyl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u>al</u>		Surrogates:			<u>REC (%)</u>	<u>Conti</u> Limita		ual	
Dibromofluoromethane	102	80-126				1,2-Dichloro	ethane-d4		108	80-13	31		
Toluene-d8	99	80-120				1,4-Bromofl	uorobenzene	e	94	80-12	20		

nM

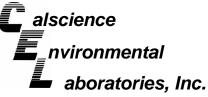


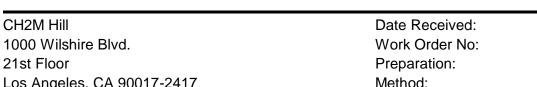


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CH2M Hill						Date Re	eceived:			0	8/03/1	10
1000 Wilshir	e Blvd.					Work O	rder No:		10-08-0165			
21st Floor						Prepara	ation:			EPA 3020	A Tot	tal
Los Angeles,	CA 90017	-2417		Method: EPA 6020						20		
-				Units: mg/L							/L	
Project: SFF	PP - Norwal	k Site								Pag	e 1 of	1
Client Sample Nur	nber			ab Sample Number	•	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Ba	atch ID
EFF-08-03			10	0-08-0165	-1-H	08/03/10 16:15	Aqueous	ICP/MS 04	08/03/10	08/03/10 22:25	10080	3L02
Comment(s):	-Results were e	valuated to the	MDL, conce	ntrations >	= to the	MDL but < RL	, if found, ar	e qualified wi	th a "J" flag.			
Parameter	Result	<u>RL</u>	MDL	<u>DF</u>	Qual	Parameter	Re	sult	<u>RL</u>	MDL	DF	Qual
Copper	0.000876	0.00100	0.000105	1	J	Selenium	0.00	)546	0.00100	0.000554	1	
Method Blank			09	96-06-003	-2,917	N/A	Aqueous	ICP/MS 04	08/03/10	08/04/10 00:50	10080	3L02
Comment(s):	-Results were e	valuated to the	MDL, conce	ntrations >	= to the	MDL but < RL,	, if found, ar	e qualified wi	th a "J" flag.			
Parameter	Result	<u>RL</u>	MDL	DF	Qual	Parameter	Re	sult	<u>RL</u>	MDL	DF	Qual
Copper	ND	0.00100	0.000105	1		Selenium	ND		0.00100	0.000554	1	

hM





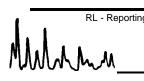
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08/03/10

1000 Wilshire Blvd. 21st Floor Los Angeles, CA 9001	7-2417		Work Order No Preparation: Method:	:		EPA 747	-08-0165 70A Total PA 7470A
Project: SFPP - Norw	alk Site					F	Page 1 of 1
Client Sample Number		Lab Sample Number	Date/Time Collected Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-08-03		10-08-0165-1-H	08/03/10 Aqueous 16:15	Mercury	08/04/10	08/04/10 13:41	100804L02
Comment(s): -Results were e	valuated to the MDL, c	oncentrations >= to the	e MDL but < RL, if found, a	re qualified wit	h a "J" flag.		
Parameter	Result	<u>RL</u> <u>MDL</u>	DF	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.00	00177 1		mg/L		
Method Blank		099-12-510-73	N/A Aqueous	Mercury	08/04/10	08/04/10 13:19	100804L02
Comment(s): -Results were e	valuated to the MDL, c	oncentrations >= to the	MDL but < RL, if found, a	re qualified wit	h a "J" flag.		
Parameter	Result	<u>RL</u> <u>MDL</u>	DF	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.00	00177 1		mg/L		

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



alscience nvironmental aboratories, Inc.



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CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

#### Project: SFPP - Norwalk Site

Date Received: Work Order No:

08/03/10 10-08-0165

Page 1 of 1

Client Sample Number		I	_ab Sample	e Numbe	r Date Collected	Matr	ix		
EFF-08-03			10-08-016	65-1	08/03/10	Aqueo	bus		
Comment(s): (24) Results were	evaluated to the	MDL, con	centrations	>= to the	e MDL but <	RL, if four	nd, are qualified w	ith a "J" flag.	
Parameter_	<u>Result</u>	RL	MDL	DF	Qual	<u>Units</u>	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	08/09/10	08/09/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.041	1		ug/L	N/A	08/03/10	EPA 7199
Solids, Total Suspended (24)	ND	1.0	0.95	1		mg/L	08/04/10	08/04/10	SM 2540 D
Solids, Settleable (24)	ND	0.10	0.10	1		mL/L/hr	08/03/10	08/03/10	SM 2540 F
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	08/06/10	08/06/10	SM 5520 B
Method Blank					N/A	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.									
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual	<u>Units</u>	Date Prepared	Date Analyzed	Method
Phenolics Total (24)	ND	0.10	0.046	1		ma/l	08/09/10	08/09/10	EPA 420 1

Parameter	Result	<u>RL</u>	MDL		Qual	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	08/09/10	08/09/10	EPA 420.1
Chromium, Hexavalent (24)	ND	1.0	0.041	1		ug/L	N/A	08/03/10	EPA 7199
Solids, Total Suspended (24)	ND	1.0	0.95	1		mg/L	08/04/10	08/04/10	SM 2540 D
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	08/06/10	08/06/10	SM 5520 B





CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	08/03/10 10-08-0165
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-08-0119-1	Aqueous	ICP/MS 04	08/03/10		08/04/10	100803S02
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Copper	95	93	72-108	2	0-10	
Selenium	81	88	59-125	8	0-12	

RPD - Relative Percent Difference, CL - Control Limit

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

4) 895-5494 · FAX: (714) 894-7501



#### **Quality Control - PDS / PDSD**



CH2M Hill 1000 Wilshire Blvd.	Date Received Work Order No:	08/03/10 10-08-0165
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

#### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date	Analyzed F	PDS / PDSD Batch Number
10-08-0119-1	Aqueous	ICP/MS 04	08/03/10	80	3/04/10	100803S02
Parameter	PDS %REC	PDSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Copper	93	91	75-125	2	0-10	
Selenium	82	79	75-125	3	0-12	

RPD - Relative Percent Difference, CL - Control Limit

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CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	08/03/10 10-08-0165
21st Floor	Preparation:	EPA 5030B
Los Angeles, CA 90017-2417	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-08-0162-2	Aqueous	GC 42	08/05/10		08/05/10	100805S01
Parameter	<u>MS %REC</u>	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	86	91	68-122	6	0-18	

RPD - Relative Percent Difference, CL - Control Limit

7440 Lincoln V





CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	08/03/10 10-08-0165
21st Floor	Preparation:	EPA 7470A Total
Los Angeles, CA 90017-2417	Method:	EPA 7470A

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-08-0102-2	Aqueous	Mercury	08/04/10	08/04/10	100804S02
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u> <u>RPD</u> C	L Qualifiers
Mercury	95	95	57-141	0 0-10	

RPD - Relative Percent Difference, CL - Control Limit

7440 Linco





CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	08/03/10 10-08-0165
21st Floor	Preparation:	EPA 5030B
Los Angeles, CA 90017-2417	Method:	EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	l	Date Analyzed	MS/MSD Batch Number
10-08-0063-5	Aqueou	IS GC/MS EE	08/04/10		08/04/10	100804S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Benzene	98	97	80-120	1	0-20	
Carbon Tetrachloride	108	108	55-151	1	0-20	
Chlorobenzene	99	97	80-120	2	0-20	
1,2-Dibromoethane	102	103	77-125	1	0-20	
1,2-Dichlorobenzene	99	101	78-120	2	0-20	
1,2-Dichloroethane	105	105	80-120	0	0-20	
1,1-Dichloroethene	91	92	69-129	1	0-20	
Ethylbenzene	107	106	73-127	1	0-20	
Toluene	94	93	80-120	1	0-20	
Trichloroethene	98	99	67-133	1	0-20	
Vinyl Chloride	102	108	67-133	6	0-20	
Methyl-t-Butyl Ether (MTBE)	96	98	65-131	2	0-22	
Tert-Butyl Alcohol (TBA)	105	102	62-134	3	0-20	
Diisopropyl Ether (DIPE)	99	101	64-136	2	0-29	
Ethyl-t-Butyl Ether (ETBE)	96	99	70-124	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	99	100	71-125	1	0-20	
Ethanol	110	106	44-152	4	0-43	

RPD - Relative Percent Difference, CL - Control Limit

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## *alscience nvironmental* Quality Control - Spike/Spike Duplicate *aboratories, Inc.*

Sone ac IN ACCORDANCE

CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417 Date Received: Work Order No: N/A 10-08-0165

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	<u>Date</u> Analyzed	Date Extracted	<u>MS%</u> REC	MSD % REC	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	10-08-0173-2	08/03/10	N/A	102	103	70-130	1	0-25	

RPD - Relative Percent Difference, CL - Control Limit

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Page	14	of	22
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CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-08-0165
21st Floor		
Los Angeles, CA 90017-2417		
-		

Project: SFPP - Norwalk Site

#### Matrix: Aqueous or Solid

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL Qualifiers
Solids, Total Suspended	SM 2540 D	10-07-2246-1	08/04/10	178	185	4	0-20

RPD - Relative Percent Difference, CL - Control Limit

MM





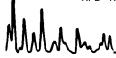
aboratories, Inc.

CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-08-0165
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
096-06-003-2,917	Aqueous	ICP/MS 04	08/03/10	08/04/10	100803L02	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RPE	<u> </u>	<u>Qualifiers</u>
Copper	102	103	8	80-120 0	0-20	
Selenium	96	97	8	80-120 1	0-20	

RPD - Relative Percent Difference, CL - Control Limit



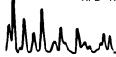


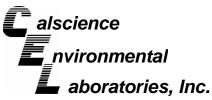


CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-08-0165
21st Floor	Preparation:	EPA 5030B
Los Angeles, CA 90017-2417	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	:h
099-12-247-4,390	Aqueous	GC 42	08/05/10	08/05/10	100805B01	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RP	D RPD CL	<u>Qualifiers</u>
TPH as Gasoline	96	96	7	78-120 0	0-10	

RPD - Relative Percent Difference, CL - Control Limit





### s. Inc.



CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-08-0165
21st Floor	Preparation:	EPA 7470A Total
Los Angeles, CA 90017-2417	Method:	EPA 7470A

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
099-12-510-73	Aqueous	Mercury	08/04/10	08/04/10	100804L02	
Parameter	LCS %	REC LCSD	<u>%REC %R</u>	EC CL RPD	RPD CL	<b>Qualifiers</b>
Mercury	98	98	8	5-121 0	0-4	

RPD - Relative Percent Difference, CL - Control Limit

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N/A

10-08-0165 EPA 5030B EPA 8260B





CH2M Hill	Date Received:
1000 Wilshire Blvd.	Work Order No:
21st Floor	Preparation:
Los Angeles, CA 90017-2417	Method:

#### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal		LCS/LCSD I Numbe	
099-14-001-1,610	Aqueous	GC/MS EE	08/04/10	08/04	/10	100804L	01
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	99	96	80-120	73-127	3	0-20	
Carbon Tetrachloride	107	105	67-139	55-151	2	0-22	
Chlorobenzene	100	97	80-120	73-127	4	0-20	
1,2-Dibromoethane	105	101	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	102	98	79-120	72-127	4	0-20	
1,2-Dichloroethane	106	103	80-120	73-127	3	0-20	
1,1-Dichloroethene	94	91	71-125	62-134	4	0-25	
Ethylbenzene	108	104	80-123	73-130	4	0-20	
Toluene	98	96	80-120	73-127	2	0-20	
Trichloroethene	99	97	80-120	73-127	2	0-20	
Vinyl Chloride	112	104	68-140	56-152	8	0-23	
Methyl-t-Butyl Ether (MTBE)	96	95	75-123	67-131	1	0-25	
Tert-Butyl Alcohol (TBA)	102	98	72-126	63-135	4	0-20	
Diisopropyl Ether (DIPE)	99	96	75-129	66-138	3	0-22	
Ethyl-t-Butyl Ether (ETBE)	96	95	76-124	68-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	99	98	79-121	72-128	1	0-20	
Ethanol	115	105	53-143	38-158	9	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

nM

RPD - Relative Percent Difference, CL - Control Limit





CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417 Date Received: Work Order No:



Project: SFPP - Norwalk Site

#### Matrix: Aqueous or Solid

Parameter	Method	<u>Quality Control</u> Sample ID	<u>Date</u> Extracted	<u>Date</u> Analyzed	<u>LCS %</u> <u>REC</u>	LCSD % REC	<u>%REC</u> _ <u>CL</u>	<u>RPD</u>	<u>RPD</u> _ <u>CL</u>	Qual
Chromium, Hexavalent	EPA 7199	099-05-123-2,657	N/A	08/03/10	103	102	80-120	1	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,251	08/09/10	08/09/10	96	95	80-120	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Work Order Number: 10-08-0165

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

Calscience	7440 LINCOLN WAY												CHA	0 N	CUST	( RECORD
<b>E</b> nvironmental	<b>GARDEN GROVE, CA 92841-1432</b>	341-1432											DATE:		08/03/	0
Aboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	(: (714) 894-	7501										PAGE:		1 OF	-
LABORATORY CLIENT:					Ē	CLIENT P	CLIENT PROJECT NAME / NUMBER	AME / NC	JMBER:						P.O. NO.:	
ADRESS:					T	SFPI	SFPP - Norwalk Site	walk	Site							
1100 Town & Country Road	Road				Ţ	ROJECT	CONTACT		N						QUOTE NO.:	
orange, CA 92868					,		James Uye SAMPLER(S): (SIGNATURE)								LAB USE ONLY	
TEL: 714-560-4802	FAX: 714-560-4601	5	E-MAIL james dye@kindermorgan.com	indermorgan	Com	$\sim$		$\langle \cdot \rangle$	$\int$						6	01165
	а 1848 — 72 НВ		5 DAYS		γ	$\backslash$		2		8	ВС	EST	REQUESTED ANALYSIS	VALY	SIS	
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)					, <b>-</b>	┝	(809	-	┣		-	┢		F		•
PECIAL INSTRUCTIONS	B L ARCHIVE SAMPLES UNTIL		_	_			(856						· ·			
Report to A. Padilla a Direct Bill KMEP/SFP "J" flags required/Us	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.	o of. AFE# 8 ection lim	1195 it - all me	ethods.		(MSI			(7:001)	(0209						
									6800	)'66L	TAT					
		SAM	SAMPLING		NO. OF CONT.					L'699	ЯН					
SAMPLE ID	LOCATION/ DESCRIPTION	DATE	TIME	MAT- RIX		4) 926970 . 	r,r;xəta;a	oilo2 eldse 	iolics (420.	or)uO,(IV)n	2 no muin					
USE										D,eH	Seleı				Comments	nents
EFF. 78-03	Effluent	26/2/10		MM	12	x x	×	< X	X X	Х	X				Temperature* =	80.4
															Temperature* =	
															(Temp. as sampled*)	sampled*)
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Relinquished by: (Signature)				Receive	Received by: (Signature)	inature)									Date:	Time:
Revised: 07/23/09																

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LIENT: KINDER MORGAN E	WERGY PARTNERS		DATE: <u>0</u>	8/03/10
TEMPERATURE: Thermome	eter ID: SC1 (Criteria: 0.0 °C	– 6.0 °C, not frozen)		
Temperature $\underline{\gamma} \cdot \underline{0}$	°C + 0.5 °C (CF) =	<u>∠.∫°C □</u>	Blank 🛛	Sample
Sample(s) outside temperat	ture criteria (PM/APM contac	ted by:).		
□ Sample(s) outside temperat	ture criteria but received on id	ce/chilled on same day	of sampling.	
Received at ambient temp	erature, placed on ice fo	or transport by Cou	rier.	
Ambient Temperature: 🛛 Ai	r 🗆 Filter 🗆 Metals	Only 🛛 PCBs Or	nly _	Initial: <u>PS</u>
	•			
CUSTODY SEALS INTACT		Not Present	🗆 N/A	Initial: <u>P(</u>
□ Sample □	□ No (Not Intact) □ No (Not Intact)	Not Present	LI IN/A	Initial: <u>r~</u>
SAMPLE CONDITION:		Ye	es N	lo N/A
Chain-Of-Custody (COC) docu	ument(s) received with san	nples&		
COC document(s) received co	mplete	C	j g	
Collection date/time_matrix, ar	d/or # of containers logged in b	ased on sample labels.		
□ No analysis requested. □ I	Not relinquished. 🛛 🛛 No date/	time relinquished.		
Sampler's name indicated on (	COC			
Sample container label(s) con	sistent with COC			
Sample container(s) intact and	good condition		zí –	
Proper containers and sufficient	nt volume for analyses req	uested Į	zí c	] 🗆
Analyses received within holdi	-			
pH / Residual Chlorine / Disso			/	] 2
Proper preservation noted on	COC or sample container.	Ł		]
Unpreserved vials received to	•		1	
Volatile analysis container(s) f				] 🗆
Tedlar bag(s) free of condensa CONTAINER TYPE:	ation	····· [ -		
Solid: □4ozCGJ □8ozCGJ	□16ozCGJ □Sleeve(	) □EnCores®	□TerraCore	<b>≈s<sup>®</sup> □</b>
Water: UVOA	)A <b>na₂</b> □125AGB □125A	GBh □125AGBp □	⊐1AGB ⊡1A	GBna <sub>2</sub> Z 1AGBs
□500AGB □500AGJ 2500	AGJs □250AGB □250	CGB □250CGBs ີ	∭1PB □50	0PB □500PB <mark>na</mark>
□250PB 250PBn □125PE	3 □125PBznna □100PJ	□100P <b>Jna₂</b> □	🗆	🗆
Air: □Tedlar <sup>®</sup> □Summa <sup>®</sup>	Other: 🗆 Trip Bl	ank Lot#:	Labeled/Chec	ked by:
		oloc/Resealable Bag E: Er		wed by: 0.1/

	T400	~~~	10-140	4.00
SUP	1100	080	(05/10	710}

August 31, 2010

Shawn P. Duffy CH2M HILL 155 Grand Avenue, Suite 1000 Oakland, CA 94612 TEL: (530) 229-3303

CA-ELAP No.: 2676 NV Cert. No.: NV-009222007A

Workorder No.: N004549

RE: SFPP - Norwalk Site

FAX: (530) 339-3303

Attention: Shawn P. Duffy

Enclosed are the results for sample(s) received on August 28, 2010 by Advanced Technology Laboratories - Las Vegas . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

se Tenopo Ir Comb Laboratory Director

Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



<u>Advanced Technology</u> Laboratories

3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

1 of 6

#### Advanced Technology Laboratories - Las Vegas

CLIENT:CH2M HILLProject:SFPP - Norwalk SiteLab Order:N004549

#### CASE NARRATIVE

#### SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples are analyzed within method holding time.



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**Date:** 31-Aug-10

CLIENT: Project: Lab Order:	CH2M HILL SFPP - Norwalk Site N004549	Work Order Sample Summa					
Contract No:							
Lab Sample ID	Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported		
N004549-001A	EFF-08-03	Water	8/3/2010	8/28/2010			



			0		T THIC Du	<b>et</b> e1 1148 10	
CLIENT:	CH2M HILL			Client Sam	ple ID: EFF-08	8-03	
Lab Order:	N004549			Collectio	n Date: 8/3/201	0	
Project:	SFPP - Norw	alk Site		Γ	Matrix: WATE	R	
Lab ID:	N004549-001						
Analyses		Result	MDL	PQL Qual	Units	DF Da	ate Analyzed
ICP-MS META	LS						
		EPA 3010A		EPA	6020		
RunID: ICP4_	100830B	QC Batch: 351	52		PrepDate:	8/29/2010	Analyst: <b>JT</b>
Selenium		1.1	0.29	0.50	µg/L	1	8/30/2010
ICP-MS META	ALS BY DRC-TE	CHNOLOGY					
		EPA 3010A		EPA	6020		
RunID: ICP4_	100830C	QC Batch: 351	52		PrepDate:	8/29/2010	Analyst: <b>JT</b>
Selenium		0.87	0.50	0.50	µg/L	1	8/30/2010

#### Qualifiers: В Analyte detected in the associated Method Blank Е Value above quantitation range Н Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified DO Surrogate Diluted Out Advanced Technology 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Laboratories

**ANALYTICAL RESULTS** 

Print Date: 31-Aug-10



#### CLIENT: CH2M HILL

Work Order: N004549

**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 6020\_W

Sample ID: N004547-004A-MS	SampType: <b>MS</b>	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: <b>1208390</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	13.401	0.50 12.50	1.108	98.4 75 125	
Sample ID: N004547-004A-MSD	SampType: <b>MSD</b>	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208391
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	13.099	0.50 12.50	1.108	95.9 75 125 13.40	2.28 20
Sample ID: MB-35152	SampType: MBLK	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636
Client ID: PBW	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208392
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	ND	0.50			
Sample ID: LCS-35152	SampType: LCS	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636
Client ID: LCSW	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208393
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	11.806	0.50 12.50	0	94.4 85 115	

#### **Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- Advanced Technology

Laboratories

E Value above quantitation range

- R RPD outside accepted recovery limits
  - Calculations are based on raw values

- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

<sup>DIOGY</sup> 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

5 of 6

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 6020\_W\_DRC

Sample ID: N004547-004A-MS	SampType: <b>MS</b>	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208404
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	16.871	0.50 12.50 4.796	96.6 75 125	
Sample ID: N004547-004A-MSD	SampType: MSD	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208405
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	17.041	0.50 12.50 4.796	98.0 75 125 16.87	1.00 20
Sample ID: MB-35152	SampType: MBLK	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638
Client ID: PBW	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208406
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	ND	0.50		
Sample ID: LCS-35152	SampType: LCS	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638
Client ID: LCSW	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208407
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- Advanced Technology

Laboratories

E Value above quantitation range

- R RPD outside accepted recovery limits
  - Calculations are based on raw values

H Holding times for preparation or analysis exceeded

S Spike/Surrogate outside of limits due to matrix interference

<sup>010gy</sup> 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

6 of 6

#### CLIENT: CH2M HILL Work Order: N004549

**Project:** SFPP - Norwalk Site

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CHAIN OF CUSTODY RECORD	P.O. NO.: QUOTE NO.:	LAB USE ONLY	YSIS	•			Comments	Temperature* = <i>な心・</i> Y	Temperature* =	(Temp. as sampled*)		Montrily			Date: Time:	8/03/10 1648	o)/te	Date: 0/28/10 10 10 00	( w) 100
CHAIN ( DATE: PAGE:		0	REQUESTED ANALYSIS												_		0	mant	21.2
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	CLENT PROJECT NAME / NUMBER: SFPP - Norwalk Site PROJECT CONTACT: Lamos, DVD		5		(S.081) ebi	ios p	abnaqeu2 listoT	×								2		Ċ	
	T NAME IOTW: ACT:	SAMPLER(S): (SIGNATURE)	ł				Settleable Solid	×				_	-		_		X	2	
	CLIENT PROJECT NA SFPP - Nor PROJECT CONTACT	H(S): (S		(80928))			1,1;X3T8;38M		-			+		++	_	4	هر م	EC	
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L D L	ывойитону сцемт. Kinder Morgan Energy Partners, Attn: Steve Defibaugh <sup>ADRESS</sup> 1100 Town & Country Road				PEOIAL 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		ď		$\top$				17		1	ie	\$	
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	CLIENT PROJECT NAME / N SFPP - Norwalk PROJECT CONTACT: James Dye SAMPLER(S): (SIGWATURE)		(5.0	191) sl	Settleable Solid	×							]	x	>	
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7440 LINCOLN WAY GARDEN GROVE, CA 92841-1432 TEL: (714) 895-5494 . FAX: (714) 894-7501	ners, Attn: Si w 714-56	1 48HR 7 72 HR			LOCATION	Effluent					K		2	41 1 - 63 -	- E	
esscience Environmental Laboratories, inc.	UBORATORY CLIENT: Kinder Morgan Energy Partners, ADRESS: 1100 Town & Country Road on: Orange, CA 92868 Tel: 714-560-4802	TURNAROUND TIME	The second secon	2005	SAMPLE ID	EFF. 78-03		1			1		Relinquished by: (Stignature)	Relinquished by. (Somature)	Refinquished by: (Signature)	Revised: 07/23/09
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անությունը հետությունը։ Արելի չեր երագությունը ուրին**ակարությունը։** Արելիչինիչինը երադարությունը է երկրությունը հանձերագրագրությունը։

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#### After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.

2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Please review the checklist below. Any NO and/or NA signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (562) 989-4045.

Sample R	eceipt Ch	ecklist
Client Name: CH2M HILL-OAKLAND		Date Time Received 8/28/2010 9:57:00 AM
Work Order Number: N004549		Received by: MBC
Cooler Temp (Deg C): 2.1		
Checklist completed by: Signature	110	Reviewed by: SAW
Carrier name:	<u>ATL</u>	
1. Shipping container/cooler in good condition?	Yes 🗸	No Not Present
2. Custody seals intact on shippping container/cooler?	Yes	No Not Present 🗸
3. Custody seals intact on sample bottles?	Yes	No Not Present 🗸
4. Chain of custody present?	Yes 🗸	No
5. Sampler's name present in COC?	Yes 🗸	Νο
6. Chain of custody signed when relinquished and received?	Yes 🗸	Νο
7. Chain of custody agrees with sample labels?	Yes 🗸	No
8. Samples in proper container/bottle?	Yes 🗸	Νο
9. Sample containers intact?	Yes 🗸	Νο
10. Sufficient sample volume for indicated test?	Yes 🗸	Νο
11. All samples received within holding time?	Yes 🗸	Νο
12. Container/Temp Blank temperature within acceptance limit?	Yes 🗸	No NA
13. Water - VOA vials have zero headspace?	Yes	No NA 🗸
<ol> <li>Water - pH acceptable upon receipt?</li> <li>Example: pH &gt; 12 for (CN,S); pH&lt;2 for Metals</li> </ol>	Yes 🗸	No NA

Comments:







August 11, 2010

Dan Jablonski CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

# Subject: Calscience Work Order No.: 10-08-0760 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 8/10/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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,

Monde

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



CH2M Hill	Date Received:
1000 Wilshire Blvd.	Work Order No:
21st Floor	Preparation:
Los Angeles, CA 90017-2417	Method:



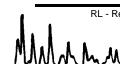
Page 2 of 8

08/10/10 10-08-0760 EPA 3020A Total EPA 6020

Page 1 of 1

Project: SFPP - Norwalk Site

Client Sample Number		Lab Sam Numbe	•	ate/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-08-10		10-08-0	760-1-A 0	8/10/10 11:55	Aqueous	ICP/MS 04	08/10/10	08/11/10 12:53	100810L03
Comment(s): -Results were	evaluated to the MDL	concentrations	>= to the MD	L but < RL	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Selenium	0.00451	0.00100	0.000554	↓ 1			mg/L		
Method Blank		096-06-	003-2,924	N/A	Aqueous	ICP/MS 04	08/10/10	08/11/10 13:04	100810L03
Comment(s): -Results were	evaluated to the MDL	concentrations	>= to the MD	L but < RL	_, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		







CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	08/10/10 10-08-0760
21st Floor	Preparation:	EPA 3005A Filt.
Los Angeles, CA 90017-2417	Method:	EPA 6020

Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	A	Date Analyzed	MS/MSD Batch Number
10-08-0711-2	Aqueous	ICP/MS 04	08/10/10	(	08/11/10	100810S03
Parameter	<u>MS %REC</u>	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
Selenium	86	89	59-125	3	0-12	

RPD - Relative Percent Difference, CL - Control Limit



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Page 4 of 8





CH2M Hill 1000 Wilshire Blvd.	Date Received Work Order No:	08/10/10 10-08-0760
21st Floor	Preparation:	EPA 3005A Filt.
Los Angeles, CA 90017-2417	Method:	EPA 6020

#### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-08-0711-2	Aqueous	ICP/MS 04	08/10/10	08/11/10	100810S03
Parameter	PDS %REC	PDSD %REC	<u>%REC CL</u>	<u>RPD</u> <u>RPD</u>	CL Qualifiers
Selenium	83	81	75-125	2 0-1	2

RPD - Relative Percent Difference, CL - Control Limit

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CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-08-0760
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba Number	atch
096-06-003-2,924	Aqueous	ICP/MS 04	08/10/10	08/11/10	100810L03	•
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL R	PD RPD CL	Qualifiers
Selenium	98	93	8	30-120	5 0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Work Order Number: 10-08-0760

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

Calscience	7440 LINCOLN WAY								ъ С	IAIN (	CHAIN OF CUSTODY RECORD	Y RECORD
Environmental	<b>GARDEN GROVE, CA 92841-1432</b>	341-1432							DAT	О Ш	8/10/10	
Laboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	(: (714) 894-7	501						PAGE:		1 OF	~
LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh	artners. Attn: Steve D	efibaugh				CLIENT PROJECT NAME / NUMBER	AME / NUMBER:				P.O. NO.:	
ADDRESS:					T	SFPP - Norwalk Site	valk Site					
	oad					- Iames Dve		/				
Orange, CA 92868						SAMPLER(S): (SIGNATURE)	TUREY				LAB USE ONLY	
TEL: 714-560-4802	FAX: 714-560-4601		E-MAIL james dve@kindermorgan.com	ndermorgan.c	E C	Kor	)				0-80	02160
TURNAROUND TIME		25	AYS	10 DAYS	ပ			REQ	REQUESTED ANALYSIS	ANAL	YSIS	
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)			_	_								
SPECIAL INSTRUCTIONS Report to D. Jablonski/ Direct Bill KMEP/SFPP	PECIAL INSTRUCTIONS Report to D. Jablonski/CH2M HILL, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195	AFE# 81	195									
"J" flags required/Use	"J" flags required/Use lowest possible detection limit - all methods.	tion limit .	- all met	hods.								
		SAMPLING	DNG		NO. OF	<u></u>						
USE SAMPLE ID ONLY	DESCRIPTION	DATE	TIME	RIX -		Seler					Corr	Comments
eff. 08 - 10	Effluent	01/01/80	اايحك	Ň	-	×					Temperature* =	15:4
		, ,										
											(Temp. as	(Temp. as sampled*)
Relinquished by: (Signature)	ł			Received by: (Signature)	by: (Sig	nature) D // 1 // 1	intal a	527	7		Bate://D//D	$12; \mathcal{H}\mathcal{H}$
Relinquished by (Signature)				Received by: (Signature)	by: (Sig	lature)					Daté: /	Time:
Relinquished by: (Signature)				Received by: (Signature)	by: (Sig	lature)					Date:	Page
Revised: 08/06/10												9 7 of 8

		Page 8	8 of 8
Gelscience WORK ORDER #: 1	0-08	<b>3</b> -07	60
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SAMPLE RECEIPT FOR	M	Cooler _/_	of _/
CLIENT: <u>KMEP</u>	DATE:	08/10	/ 10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)		· · · · · · · · · · · · · ·	
	Blank	☐ Sample	
□ Sample(s) outside temperature criteria (PM/APM contacted by:).			
Sample(s) outside temperature criteria but received on ice/chilled on same day	ofsamol	ina	
		my.	
Received at ambient temperature, placed on ice for transport by Couri		Initial:	DC
Ambient Temperature:  Air  Filter  Metals Only  PCBs Onl	<u>у</u>		
CUSTODY SEALS INTACT:		· · · · · · · · · · · · · · · · · · ·	1. 1
□ Cooler □ □ No (Not Intact) ☑ Not Present	□ N/A	Initial:	pC
□ Sample □ □ No (Not Intact) ☑ Not Present		Initial:	pC
SAMPLE CONDITION: Yes	s	No	N/A
Chain-Of-Custody (COC) document(s) received with samples			
COC document(s) received complete			
$\Box$ 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			
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores <sup>®</sup>	□Terra	Cores <sup>®</sup> □	
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □	1AGB [	 ⊒1AGB <b>na₂</b> []′	1AGB <b>s</b>
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □			
□250PB □250PBn □125PB □125PBznna □100PJ □100PJna <sub>2</sub> □			
Air: □Tedlar <sup>®</sup> □Summa <sup>®</sup> Other: □ Trip Blank Lot#: L Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Enve Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub> znna: ZnAc <sub>2</sub> +NaOH f: Field	abeled/( Hope F	leviewed by: <u>/</u>	1SC

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SOP	T100	090	(05/10/10)

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: :r

August 31, 2010

Shawn P. Duffy CH2M HILL 155 Grand Avenue, Suite 1000 Oakland, CA 94612

TEL: (530) 229-3303 FAX: (530) 339-3303 CA-ELAP No.: 2676 NV Cert. No.: NV-009222007A

Workorder No.: N004550

RE: SFPP - Norwalk Site

Attention: Shawn P. Duffy

Enclosed are the results for sample(s) received on August 28, 2010 by Advanced Technology Laboratories - Las Vegas . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



<u>Advanced Technology</u> Laboratories

<u>40</u> 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

CLIENT:CH2M HILLProject:SFPP - Norwalk SiteLab Order:N004550

# CASE NARRATIVE

#### SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples are analyzed within method holding time.



**Date:** 31-Aug-10

CLIENT: Project: Lab Order: Contract No:	CH2M HILL SFPP - Norwalk Site N004550		Work O	order Sample	e Summary
Lab Sample ID	Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N004550-001A	EFF-08-10	Water	8/10/2010 11:55:00 AM	8/28/2010	



## **ANALYTICAL RESULTS**

Print Date: 31-Aug-10

#### Advanced Technology Laboratories - Las Vegas

**CLIENT:** Client Sample ID: EFF-08-10 CH2M HILL Lab Order: N004550 Collection Date: 8/10/2010 11:55:00 AM SFPP - Norwalk Site **Project:** Matrix: WATER Lab ID: N004550-001 Analyses Result MDL PQL Qual Units DF **Date Analyzed ICP-MS METALS EPA 3010A** EPA 6020 RunID: ICP4\_100830B QC Batch: 35152 PrepDate: 8/29/2010 Analyst: JT Selenium 1.8 0.29 0.50 µg/L 1 8/30/2010 **ICP-MS METALS BY DRC-TECHNOLOGY** EPA 3010A EPA 6020 8/29/2010 Analyst: JT RunID: ICP4\_100830C QC Batch: 35152 PrepDate: 8/30/2010 Selenium 0.69 0.50 0.50 µg/L 1

**Qualifiers:** В Analyte detected in the associated Method Blank Е Value above quantitation range Н Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits S Spike/Surrogate outside of limits due to matrix interferenc ND Not Detected at the Reporting Limit Results are wet unless otherwise specified Surrogate Diluted Out DO Advanced Technology 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Laboratories

#### **CLIENT:** CH2M HILL

Work Order: N004550

SFPP - Norwalk Site **Project:** 

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 6020\_W

Sample ID: N004547-004A-MS	SampType: <b>MS</b>	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636			
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: <b>1208390</b>			
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	13.401	0.50 12.50	1.108	98.4 75 125				
Sample ID: N004547-004A-MSD	SampType: MSD	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636			
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208391			
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	13.099	0.50 12.50	1.108	95.9 75 125 13.40	2.28 20			
Sample ID: MB-35152	SampType: MBLK	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636			
Client ID: PBW	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208392			
Analyte	Result	PQL SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	ND	0.50						
Sample ID: LCS-35152	SampType: LCS	TestCode: 6020_W	Units: µg/L	Prep Date: 8/29/2010	RunNo: 77636			
1								
Client ID: LCSW	Batch ID: 35152	TestNo: EPA 6020	EPA 3010A	Analysis Date: 8/30/2010	SeqNo: <b>1208393</b>			
Client ID: LCSW Analyte	Batch ID: <b>35152</b> Result	TestNo: <b>EPA 6020</b> PQL SPK value	EPA 3010A SPK Ref Val	Analysis Date: <b>8/30/2010</b> %REC LowLimit HighLimit RPD Ref Val	SeqNo: <b>1208393</b> %RPD RPDLimit Qual			

#### **Oualifiers:**

- Analyte detected in the associated Method Blank В
- J Analyte detected below quantitation limits

- Value above quantitation range Е
- ND Not Detected at the Reporting Limit
- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out S

- Holding times for preparation or analysis exceeded Н
- R RPD outside accepted recovery limits Calculations are based on raw values

Advanced Technology 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Laboratories

## ANALYTICAL QC SUMMARY REPORT

#### TestCode: 6020\_W\_DRC

Sample ID: N004547-004A-MS	SampType: <b>MS</b>	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638			
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208404			
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	16.871	0.50 12.50 4.796	96.6 75 125				
Sample ID: N004547-004A-MSD	SampType: MSD	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638			
Client ID: ZZZZZZ	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208405			
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	17.041	0.50 12.50 4.796	98.0 75 125 16.87	1.00 20			
Sample ID: MB-35152	SampType: MBLK	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638			
Client ID: PBW	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208406			
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	ND	0.50					
Sample ID: LCS-35152	SampType: LCS	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/29/2010	RunNo: 77638			
Client ID: LCSW	Batch ID: 35152	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/30/2010	SeqNo: 1208407			
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual			
Selenium	12.106	0.50 12.50 0	96.9 85 115				

#### **Qualifiers:**

**CLIENT:** 

**Project:** 

Work Order:

CH2M HILL

SFPP - Norwalk Site

N004550

- B Analyte detected in the associated Method Blank
- J Analyte detected below quantitation limits

- E Value above quantitation range ND Not Detected at the Reporting L
- ND Not Detected at the Reporting LimitDO Surrogate Diluted Out
- S Spike/Surrogate outside of limits due to matrix interference
  - Advanced Technology 2151 W. Dest R

Laboratories

2Chnology 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

- H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits Calculations are based on raw values

CHAIN OF CUSTODY RECORD DATE: $08/10/10$ PAGE: 1 0F 1	P.O. NO.: QUOTE NO.:		ALYSIS					Temperature* = /0.7	(Temp. as sampled*)			10	01/tc/	Date: Time: @/28//0 / DDD	w] 102
	CCIENT PROJECT NAME / NUMBER: SFPP - Norwalk Site PROJECT CONTACT:	James Dye sampler(s): (signature)	REQUESTED ANALYSIS			unina		x Nb04550-1				ignature) DANNIALO CZL	IK	CAPEATIN MANUMATE	7°12/2/
		E-MAIL Bames dye@kindermorgen.com	10 DAYS		lods.	MAT- CONT.	RIX	- 1				Received by: (Signature)	Received by: (Signature)	Received by: (Signature)	
341-1432 (: (714) 894-7501	efibaugh		S DAYS		tion limit - all methods.	SAMPLING	DATE TIME	08/10/10 1155							
7440 LINCOLN WAY GARDEN GROVE, CA 92841-1432 TEL: (714) 895-5494 . FAX: (714) 894-7501	rtners, Attn: Steve D	FAX 714-560-4601		COSTS MAY APPLY) COSTS MAY APPLY) CONTINUE ARCHIVE SAMPLES UNTIL H2M HILL, cc: KMEP Steve Defibaugh-ref. AFE# 8	west possible detec	LOCATION	DESCRIPTION	Effluent				$\downarrow$	Mul		
Ealscience Environmental Eaboratories, inc.	LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh ADRESS: 1100 Town & Country Road	이다. Orange, CA 92868 편티 714-560-4802	TURNAROUND TIME		"J" flags required/Use lowest possible detection limit		USE SAMPLE ID	EFF- 08 - 10				Relinquished by: (Signature)	Relinquished by Koignatural	Relinquished by: (Signature)	Revised: 08/06/10

Calacience	7440 LINCOLN WAY								0	CHAIN	OF CUSTO	CHAIN OF CUSTODY RECORD	
<b>E</b> <sub>n</sub> vironmental	GARDEN GROVE, CA 92841-1432	841-1432									01/01/20		
💪 aboratories, Inc.	TEL: (714) 895-5494 . FAX: (714) 894-7501	X: (714) 894-7	501						u.	PAGE:	1 0	-	
LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh	<sup>a</sup> artners, Attn: Steve D	)efibaugh			5	IENT PROJECT	CLIENT PROJECT NAME / NUMBER				P.O. NO.:		
ADDRESS: 1100 Town & Country Road	peo					PROJECT CONTACT	SFFF - NOTWAIK SITE ROJECT CONTACT:				QUOTE NO .:		
	040				T	James Dye		1					
Orange, CA 92868				the second	Ś	SAMPLER(S): (SIGNATURE)	NATURE	11					
TEL: 714-560-4802	FAX: 714-560-4601		E-MAiL James dye@kindermorgan.com	idermorgan.c	Ę	1	1	2			12101	0 a L 0	
		L	5 DAVe					RE	REQUESTED ANALYSIS	ED ANA	TYSIS		_
ATS (		ן	]		A,		_						
RWQCB REPORTING	ARCHIVE SAMPLES UNTIL	ES UNTIL	/	/									
SPECIAL INSTRUCTIONS Report to D. Jablonski Direct Bill KMEP/SFPF	PECIAL INSTRUCTIONS Report to D. Jablonski/CH2M HILL, cc: KMEP Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81	AFE# 81	195										
"J" flags required/Use	"J" flags required/Use lowest possible detection limit		- all methods.	ods.									2.01
	LOCATION	SAMPLING	DNI		NO. OF CONT.								-
USE SAMPLE IU	DESCRIPTION	DATE	TIME	RIX	192						ŭ	Comments	T
1 EFF. 08 . 10	Effluent	08/10/10	1155	WW	1 X						Temperature*	= 75.4	
		1											
											(Temp.	as sampled*)	
													T
													-
1. e.													T
													-
Relinquished by: (Signature)	6			Received by: (Signature)	oy: (Sign		DANNIALO		<i>crL</i>		8/10/10		1
Relinquished by Glignature	ma			Received by: (Signature)	oy: (Sign	H H	ex .	A.	, (		08/27/10		T
Relinquished by: (Signature)				Received by: (Signature)	oy: (Sign	Received by: (Signature) M.A.R.LD.W. CAR71 N	hm	the w	¥		Date: <i>ຜູ/2</i> 8//ບ	Time: / Do O	
Revised: 08/06/10							/		1.2	7º1	w] 100		

energy and end of the state of

#### **Stephen Nowak**

From:	Daniel.Jablonski@CH2M.com
Sent:	Friday, August 27, 2010 4:21 PM
То:	Stephen Nowak
Cc:	Vladimir.Carino@CH2M.com; Shawn.Duffy@CH2M.com; Mark.Wuttig@CH2M.com; marlon@atl-labs.com
Subject:	Se samples collected August 3 and 10.
Attachments:	10-08-0760.pdf; 10-08-0165.pdf

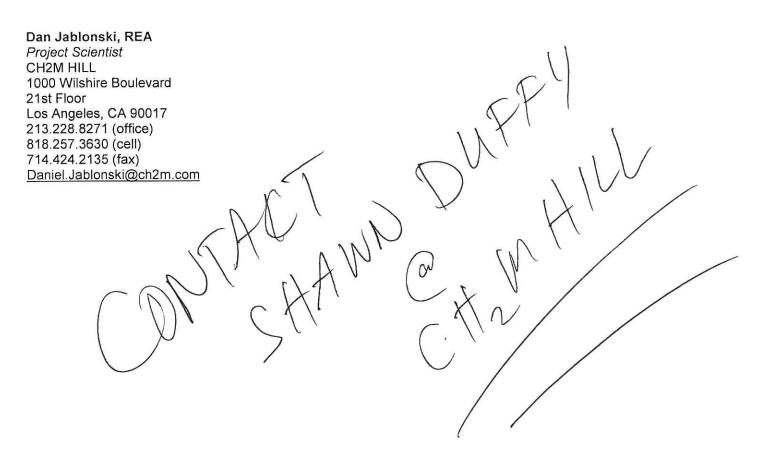
Hi Steve,

As we discussed, please ship remaining selenium sample volume from sample dates 8/3 and 8/10 (see attached reports) to:

Marlon Cartin Advanced Technology Laboratories 3151 W. Post Road Las Vegas, NV 89118 Tel: (702) 307-2659

Overnight fed-ex for sat delivery or if it's too late, overnight ship on Monday for Tuesday delivery. Use fed ex account number: <u>257-003-892</u> Make sure to write on the internal billing reference line: 407609.B1.01 and my name (Dan Jablonski).

Thanks,





#### After printing this label:

- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic valueof the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Please review the checklist below. Any NO and/or NA signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (562) 989-4045.

Sample I	Receipt Cheo	cklist
Client Name: CH2M HILL-OAKLAND		Date Time Received: 8/28/2010 10:04:23 AM
Work Order Number: N004550		Received by: MBC
Cooler Temp (Deg C): 2.1		
Checklist completed by: 5/72 Signature Date	110	Reviewed by:
Carrier name:	FedEx	
1. Shipping container/cooler in good condition?	Yes 🗸	No Not Present
2. Custody seals intact on shippping container/cooler?	Yes	No Not Present 🗸
3. Custody seals intact on sample bottles?	Yes	No Not Present 🗸
4. Chain of custody present?	Yes 🗸	Νο
5. Sampler's name present in COC?	Yes 🗸	No
6. Chain of custody signed when relinquished and received?	Yes 🗸	No
7. Chain of custody agrees with sample labels?	Yes 🗸	Νο
8. Samples in proper container/bottle?	Yes 🗸	No
9. Sample containers intact?	Yes 🗸	No
10. Sufficient sample volume for indicated test?	Yes 🗸	No
11. All samples received within holding time?	Yes 🗸	No
12. Container/Temp Blank temperature within acceptance limit?	Yes 🗸	No NA
13. Water - VOA vials have zero headspace?	Yes	No NA 🗸
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes 🗸	No NA

Comments:







August 18, 2010

Dan Jablonski CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

# Subject: Calscience Work Order No.: 10-08-1344 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 8/17/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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,

Monde

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





Page 2 of 7

													_
CH2M Hill						Date Re	eceived:				08	8/17/1	0
1000 Wilshire Blvd.						Work O	rder No:				10-0	8-134	4
21st Floor						Prepara	ation:				EPA	5030	В
Los Angeles, CA 90017-	2417					Method						8260	
	2117					Units:	•				L17(	ug/	
	. 0:44					Units.					-	•	
Project: SFPP - Norwall	< Site										Page	e 1 of	1
				Sample		Date/Time	Matrix	Instrument	Date		Date/Time	QC Bat	ch ID
Client Sample Number			Nu	mber		Collected	IVIALITA	manument	Prepar		Analyzed	QC Dat	
EFF-08-17			10-08	3-1344-1	-A	08/17/10 15:30	Aqueous	GC/MS OO	08/17/1	10	08/17/10 18:32	100817	'L01
Comment(s): -Results were ev	aluated to th	ne MDL, c	oncentra	ations >=	to the N	IDL but < RL	, if found, are	e qualified wit	th a "J" flag	J.			
Parameter	Result	RL	<u>MDL</u>	DF	Qual	Parameter		•	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene			ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene			ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene			ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Bu	tyl Ether (M7	「BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Q	<u>ual</u>		Surrogates:			<u>REC (%)</u>	<u>Cont</u> Limit		<u>ual</u>	
Dibromofluoromethane	102	80-126				1,2-Dichloro	bethane-d4		104	80-13	31		
Toluene-d8	102	80-120				1,4-Bromofl	uorobenzene	е	100	80-12	20		
Method Blank			<b>099-</b> 1	14-001-1	,744	N/A	Aqueous	GC/MS OO	08/17/1	10	08/17/10 15:01	100817	'L01
Comment(s): -Results were ev	aluated to th	ne MDL, c	oncentra	ations >=	to the N	IDL but < RL	, if found, are	e qualified wit	th a "J" flac	J.			
Parameter	Result	RL	MDL	DF	Qual	Parameter		•	Result	RL	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene			ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene			ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene			ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-Bu	tyl Ether (M7	「BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	<u>Q</u> 1	<u>ual</u>		Surrogates:			<u>REC (%)</u>	<u>Cont</u> Limit		<u>ual</u>	
Dibromofluoromethane										-	-		
	98	80-126				1,2-Dichloro	bethane-d4		97	80-13	31		

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

RL - Reporting Limit , MM





CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

Date Received:	08/17/10
Work Order No:	10-08-1344
Preparation:	EPA 5030B
Method:	EPA 8260B

#### Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
10-08-1012-4	Aqueou	us GC/MS OO	08/17/10		08/17/10	100817S01
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Benzene	104	105	72-120	1	0-20	
Carbon Tetrachloride	109	109	63-135	0	0-20	
Chlorobenzene	100	103	80-120	3	0-20	
1,2-Dibromoethane	100	109	80-120	9	0-20	
1,2-Dichlorobenzene	98	99	80-120	2	0-20	
1,2-Dichloroethane	105	110	10-150	4	0-20	
1,1-Dichloroethene	106	105	60-132	1	0-25	
Ethylbenzene	103	104	78-120	1	0-20	
Toluene	103	104	74-122	0	0-20	
Trichloroethene	89	91	69-120	2	0-20	
Vinyl Chloride	101	99	58-130	2	0-20	
Methyl-t-Butyl Ether (MTBE)	93	101	72-126	8	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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

494 • FAX: (714) 894-7501





CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417 Date Received: Work Order No: Preparation: Method:

## N/A 10-08-1344 EPA 5030B EPA 8260B

#### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Da Anal		LCS/LCSD Numbe	
099-14-001-1,744	Aqueous	GC/MS OO	08/17/10	08/17/	/10	100817L	01
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Benzene	104	103	80-120	73-127	1	0-20	
Carbon Tetrachloride	108	109	67-139	55-151	1	0-22	
Chlorobenzene	101	101	80-120	73-127	0	0-20	
1,2-Dibromoethane	109	107	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	100	101	79-120	72-127	1	0-20	
1,2-Dichloroethane	110	107	80-120	73-127	3	0-20	
1,1-Dichloroethene	104	103	71-125	62-134	1	0-25	
Ethylbenzene	102	103	80-123	73-130	1	0-20	
Toluene	103	102	80-120	73-127	0	0-20	
Trichloroethene	103	103	80-120	73-127	0	0-20	
Vinyl Chloride	100	97	68-140	56-152	3	0-23	
Methyl-t-Butyl Ether (MTBE)	102	100	75-123	67-131	1	0-25	
Tert-Butyl Alcohol (TBA)	98	101	72-126	63-135	3	0-20	
Diisopropyl Ether (DIPE)	102	100	75-129	66-138	2	0-22	
Ethyl-t-Butyl Ether (ETBE)	99	98	76-124	68-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	96	95	79-121	72-128	1	0-20	
Ethanol	106	113	53-143	38-158	7	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

n M

RPD - Relative Percent Difference, CL - Control Limit

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MM



Work Order Number: 10-08-1344

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

				Pa	ge 7 of 7
Galscience	WOF	K ORDER #:	10-0	8-12	$\mathbf{A}$
Laboratories, Inc.					1
SAM	PLE REC	EIPT FO	RM	Cooler _	<u>∖_</u> of _ \_
CLIENT: KINDER MORGAN			DATE:	08/17	<u>7/10</u>
TEMPERATURE: Thermometer ID: SC	1 (Criteria: 0.0 °C	– 6.0 °C, not frozer	າ)		
Temperature <u>\.</u>				🗹 Sam	ple
☐ Sample(s) outside temperature criteria					
☐ Sample(s) outside temperature criteria			ay of samp	ling.	
☐ Received at ambient temperature,					
	Iter 🛛 Metals C			Initi	al: <u>WB</u>
CUSTODY SEALS INTACT:					
	No (Not Intact)	Not Present	□ N/A		$\operatorname{ial}: \underbrace{\mathcal{W}}_{h1}$
□ Sample □ □	No (Not Intact)	Not Present		Init	ial: <u>MSC</u>
SAMPLE CONDITION:		····	Yes	No	N/A
Chain-Of-Custody (COC) document(s) r	eceived with sam	ples			
COC document(s) received complete			,E		
☐ Collection date/time, matrix, and/or # of co	ntainers logged in ba	sed on sample labels			
□ No analysis requested. □ Not relinquis	hed. 🛛 No date/t	ime relinquished.			
Sampler's name indicated on COC			ø		
Sample container label(s) consistent wit	h COC		Æ		
Sample container(s) intact and good con	ndition		Þ		
Proper containers and sufficient volume	for analyses requ	uested	Ø		
Analyses received within holding time	•••••••••		Ł		
pH / Residual Chlorine / Dissolved Sulfie	de received withir	1 24 hours	. 🗆		
Proper preservation noted on COC or sa	ample container		. 1		
Unpreserved vials received for Volatile	s analysis				
Volatile analysis container(s) free of hea					
Tedlar bag(s) free of condensation					Æ
Solid: □4ozCGJ <sub>2</sub> □8ozCGJ □16oz0	CGJ □Sleeve (_	) □EnCore	s® ⊡Terr	aCores <sup>®</sup> [	]
Water: □VOA , ☑VOAh □VOAna₂ □					
□500AGB □500AGJ □500AGJs □	250AGB 🗆 2500	CGB □250CGBs	s □1PB	□500PB [	⊒500PB <b>na</b>
□250PB □250PBn □125PB □125P	B <b>znna</b> □100PJ	□100PJ <b>na</b> ₂ □		[	□
Air: □Tedlar <sup>®</sup> □Summa <sup>®</sup> Other: □				l/Checked k	y: MSC
Container: C: Clear A: Amber P: Plastic G: Glass Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na:				Reviewed I	· · · ·
	маон р: П3rO4 S: П2S				

. In order of a construction of the second second

SOP	T100_	_090	(05/1	10/10)
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September 01, 2010

Shawn P. Duffy CH2M HILL 155 Grand Avenue, Suite 1000 Oakland, CA 94612 TEL: (530) 229-3303

CA-ELAP No.: 2676 NV Cert. No.: NV-009222007A

Workorder No.: N004546

RE: SFPP - Norwalk Site

FAX: (530) 339-3303

Attention: Shawn P. Duffy

Enclosed are the results for sample(s) received on August 26, 2010 by Advanced Technology Laboratories - Las Vegas . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



Advanced Technology Laboratories, Inc.

3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

1 of 6

CLIENT:CH2M HILLProject:SFPP - Norwalk SiteLab Order:N004546

# CASE NARRATIVE

#### SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples are analyzed within method holding time.



	0.		e		1111124	<b></b> 01 Step 10				
CLIENT:	CH2M HII	LL		Client Sample ID: EFF-08-25						
Lab Order:	N004546			Collection	n Date: 8/25/20	010 1:00:00 P	М			
Project:	SFPP - No	rwalk Site		Γ	Matrix: WATE	R				
Lab ID:	N004546-0	001								
Analyses		Result	MDL	PQL Qual	Units	DF D	ate Analyzed			
ICP-MS META	LS									
		EPA 3010A	EPA 6020							
RunID: ICP4_	100827A	QC Batch: 35	5146		PrepDate:	8/26/2010	Analyst: <b>JT</b>			
Selenium		4.0	0.29	0.50	µg/L	1	8/27/2010			
ICP-MS MET	ALS BY DRC-	TECHNOLOGY								
		EPA 3010A		EPA	6020					
RunID: ICP4_	100827B	QC Batch: 35	5146		PrepDate:	8/26/2010	Analyst: <b>JT</b>			
Selenium		0.98	0.50	0.50	µg/L	1	8/27/2010			

# Advanced Technology Laboratories - Las Vegas

ANALYTICAL RESULTS

Print Date: 01-Sep-10

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
  - Results are wet unless otherwise specified

- E Value above quantitation range
- J Analyte detected below quantitation limits
- S Spike/Surrogate outside of limits due to matrix interferenc
- DO Surrogate Diluted Out

Advanced Technology Laboratories, Inc. 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

### Advanced Technology Laboratories - Las Vegas

### **CLIENT:** CH2M HILL

N004546 Work Order:

SFPP - Norwalk Site **Project:** 

## ANALYTICAL QC SUMMARY REPORT

TestCode: 6020\_W

Sample ID: MB-3514	6	SampType:	MBLK	TestCoc	le: 6020_W	Units: µg/L		Prep Dat	te: 8/26/20	10	RunNo: 77	511	
Client ID: PBW		Batch ID:	35146	TestN	lo: EPA 6020	EPA 3010A		Analysis Dat	te: <b>8/27/20</b>	10	SeqNo: 12	07109	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium			0.361	0.50									J
Sample ID: LCS-351	46	SampType:	LCS	TestCoc	le: 6020_W	Units: µg/L		Prep Dat	te: 8/26/20	10	RunNo: 77	611	
Client ID: LCSW		Batch ID:	35146	TestN	lo: EPA 6020	EPA 3010A		Analysis Dat	te: 8/27/20	10	SeqNo: 120	07110	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium			12.475	0.50	12.50	0	99.8	85	115				
Sample ID: N004546	-001A-DUP-	SampType:	DUP	TestCoc	le: 6020_W	Units: µg/L		Prep Dat	ie:		RunNo: 77	611	
Client ID: ZZZZZZ		Batch ID:	35146	TestN	lo: EPA 6020	EPA 3010A		Analysis Dat	te: 8/27/20	10	SeqNo: 120	07112	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium			4.865	0.50						4.001	19.5	20	
Sample ID: N004546	-001A-MS	SampType:	MS	TestCoc	le: 6020_W	Units: µg/L		Prep Dat	te: <b>8/26/20</b>	10	RunNo: 77	611	
Client ID: ZZZZZZ		Batch ID:	35146	TestN	lo: EPA 6020	EPA 3010A		Analysis Dat	te: 8/27/20	10	SeqNo: 120	07113	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium			16.026	0.50	12.50	4.001	96.2	75	125				
Sample ID: N004546	-001A-MSD	SampType:	MSD	TestCoc	le: 6020_W	Units: µg/L		Prep Dat	te: <b>8/26/20</b>	10	RunNo: 77	611	
Client ID: ZZZZZZ		Batch ID:	35146	TestN	lo: EPA 6020	EPA 3010A		Analysis Dat	te: <b>8/27/20</b>	10	SeqNo: 12	07114	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium			15.960	0.50	12.50	4.001	95.7	75	125	16.03	0.414	20	

### **Qualifiers:**

- В Analyte detected in the associated Method Blank
- Analyte detected below quantitation limits J
- Value above quantitation range ND Not Detected at the Reporting Limit
- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

- Н Holding times for preparation or analysis exceeded
- RPD outside accepted recovery limits R
  - Calculations are based on raw values



Advanced Technology 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691 Laboratories, Inc.

Е

### CH2M HILL

Work Order: N004546

**CLIENT:** 

**Project:** SFPP - Norwalk Site

### ANALYTICAL QC SUMMARY REPORT

TestCode: 6020\_W\_DRC

Sample ID: MB-35146	SampType: <b>MBLK</b>	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/26/2010	RunNo: 77614
Client ID: PBW	Batch ID: 35146	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/27/2010	SeqNo: <b>1207226</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	ND	0.50		
Sample ID: LCS-35146	SampType: LCS	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/26/2010	RunNo: 77614
Client ID: LCSW	Batch ID: 35146	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/27/2010	SeqNo: 1207227
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	12.428	0.50 12.50 0	99.4 85 115	
Sample ID: N004546-001A-DUP_	SampType: <b>DUP</b>	TestCode: 6020_W_DRC Units: µg/L	Prep Date:	RunNo: 77614
Client ID: ZZZZZZ	Batch ID: 35146	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/27/2010	SeqNo: 1207229
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	0.845	0.50	0.9812	14.9 0
Sample ID: N004546-001A-MS	SampType: <b>MS</b>	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/26/2010	RunNo: 77614
Client ID: ZZZZZZ	Batch ID: 35146	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/27/2010	SeqNo: 1207230
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	12.366	0.50 12.50 0.9812	91.1 75 125	
Sample ID: N004546-001A-MSD	SampType: MSD	TestCode: 6020_W_DRC Units: µg/L	Prep Date: 8/26/2010	RunNo: 77614
Client ID: ZZZZZZ	Batch ID: 35146	TestNo: EPA 6020 EPA 3010A	Analysis Date: 8/27/2010	SeqNo: 1207231
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	12.435	0.50 12.50 0.9812	91.6 75 125 12.37	0.554 20

### **Qualifiers:**

- В Analyte detected in the associated Method Blank
- Analyte detected below quantitation limits J
- Е Value above quantitation range ND
  - Not Detected at the Reporting Limit
- S Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

- Н Holding times for preparation or analysis exceeded
- RPD outside accepted recovery limits R
  - Calculations are based on raw values

Advanced Technology Laboratories, Inc.

3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

### **CLIENT:** CH2M HILL Work Order: N004546 **Project:** SFPP - Norwalk Site

### ANALYTICAL QC SUMMARY REPORT

TestCode: 6020\_W\_DRC

Sample ID: N004546-001A-PS X	SampType: <b>MS</b>	TestCoo	de: 6020_W_C	DRC Units: µg/L		Prep Da	te:		RunNo: 776	614	
Client ID: ZZZZZZ	Batch ID: 35146	TestN	lo: EPA 6020	EPA 3010A		Analysis Da	te: <b>8/27/20</b> *	10	SeqNo: 120	)7232	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	12.960	0.50	12.50	0	104	75	125				

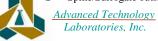
### **Qualifiers:**

- В Analyte detected in the associated Method Blank
- Analyte detected below quantitation limits J

- Е Value above quantitation range
- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out S

ND Not Detected at the Reporting Limit

- Н Holding times for preparation or analysis exceeded
- RPD outside accepted recovery limits R Calculations are based on raw values



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Advanced Technology Laboratories 3151 W. Post Road Las Vegas, NV 89118 Tel: (702) 307-2659 • Fax: (702) 307-2691

Marlon Cartin [marlon@atl-labs.com]

OF 1	~
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	Marlon Cartin [marlon@atl-labs.com]	til-labs.com]	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1								
LAB	LABORATORY CLIENT:					CLIE	CLIENT PROJECT NAME / NUMBER	BER			
Kin	Kinder Morgan Energy Partners, Attn: Steve Defibaugh	irtners, Attn: Steve D	efibaugh								
ADD	ADDRESS:		-			ŝ	SFPP - Norwalk Site	ite			
110	1100 Town & Country Road	pr				PRO.	PROJECT CONTACT			QUOTE NO :	
CITY:						L L	James Dye	1			
Ora	Orange. CA 92868					SAME	PLER(S): (SIGNATURE)		21	LAB USE ONLY	-Yaraharaharahar
TEL:		FAX:		E-MAIL		r		1×	Y		
	714-560-4802	714-560-4601	01	James dya@kindermorgan.com	dermorgan col	5	Jose C	1		Tenter and the second second	
TUR	TURNAROUND TIME		1			//		REQUE	REQUESTED ANALYSIS	AL YSIS	
	SAME DAY 🗾 24 HR	1 48HR 7 72 HR		5 DAYS	10 DAYS	X				2 2 2 1 2	
SPE	SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)	COSTS MAY APPLY)			~						
L	RWQCB REPORTING	☐ ARCHIVE SAMPLES UNTIL	ES UNTIL	1	/	_					
SPE	SPECIAL INSTRUCTIONS					Т					
Ř	Report to D. Jablonski/CH2M HILL (djablon1@ch2m.com)	CH2M HILL (djablon1	@ch2m.cc	(m		АТ Я					
œ :	Report to S. Duffy/CH2M HILL (Sduffy@ch2m.com) "." flans required/Use lowest possible detection limit - all methods.	// HILL (Sduffy@ch2n owest possible detec	n.com) ction limit ·	- all metho	ods.	H 72 U					
		_				io w					
LAB	CANDI E ID	LOCATION	SAMF	SAMPLING	MAT- CONT.						
ONLY		DESCRIPTION	DATE	TIME	RIX	əS		_	_	Cor	Comments
	EFF- 25-25	Effluent	8-25-10	1300	N	1 X				Temperature*	0 7.1 =
						_			_		
	- 1									(Temp. a	(Temp. as sampled*)
Dest	10			1						Attention: Marlon Cartin	Cartin
										Per discussion with ATL	n with ATL
										No charge for this Analysis	this Analysis
		,									
Reli	Relinquished by. (Signature)				Received by: (Signature)	y: (Signatu	I U I			Date:	Time.
	A. le	$\langle$			-	$\backslash$	TA			Jaila	1.100
Rell	Reliftquisped by (Signature)				Received by: (Signature)	y. (Signaft	Te) () ()			Date:	ami
Here I	Berlinquished by: (Signature)				Received by: (Signature)	y: (Signatu	ire)			Date:	Time
Rev	Revised: 08/19/10										

**Advanced Technology Laboratories - Las Vegas** 

# WORK ORDER Summary

26-Aug-10 WorkOrder: N004546

Report to D. Jablonski/CH2M HILL (djablon1@ch2m.com) Report to S.Duffy/CH2M HILL (sduffy@ch2m.com) "J" Flag required / Use lowest possible detec Date Received: 8/26/2010 QC Level: RTNE CH2M HILL-OAKLAND SFPP - Norwalk Site Comments: Client ID: Project:

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	ЫH	SM	HId MS Sub Storage
N004546-001A	EFF-08-25	8/25/2010 1:00:00 PM	8/26/2010	Water	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA			MM
			8/26/2010		EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA			MM
			8/26/2010		EPA 6020	ICP-MS METALS			MM 🗌
			8/26/2010		EPA 6020	ICP-MS METALS BY DRC- TECHNOLOGY			MM
			8/26/2010		EPA 6020	ICP-MS METALS by Hydride Generation			MM 🗌
N004546-002A	Folder	8/26/2010 9:38:55 AM	8/26/2010		Folder	Folder			LAB

### Advanced Technology Laboratories - Las Vegas

Please review the checklist below. Any NO and/or NA signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (562) 989-4045.

### Sample Receipt Checklist

Client Name: CH2M HILL-OAKLAND		Date Time Received: 8/26/2010 9:30:00 AM
Work Order Number: N004546		Received by: GG
Cooler Temp (Deg C): 1.2		
Checklist completed by: Signature	Ŵ	Reviewed by: by 8/2-7/64 Initials Date
Carrier name:	<u>FedEx</u>	
1. Shipping container/cooler in good condition?	Yes 🔽	No Not Present
2. Custody seals intact on shippping container/cooler?	Yes	No 🗌 Not Present 🗹
3. Custody seals intact on sample bottles?	Yes	No Not Present
4. Chain of custody present?	Yes 🗹	Νο
5. Sampler's name present in COC?	Yes 🖌	Νο
6. Chain of custody signed when relinquished and received?	Yes 🔽	Νο
7. Chain of custody agrees with sample labels?	Yes 🗹	No 🗔
8. Samples in proper container/bottle?	Yes 🔽	No
9. Sample containers intact?	Yes 🖌	No
10. Sufficient sample volume for indicated test?	Yes 🖌	Νο
11. All samples received within holding time?	Yes 🔽	No [_]
12. Container/Temp Blank temperature within acceptance limit?	Yes 🗹	No
13. Water - VOA vials have zero headspace?	Yes	No NA 🗹
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes 🗸	No

Comments:





Page 1 of 21

Supplemental Report 1

September 17, 2010

The original report has been revised/corrected.

Dan Jablonski CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

Subject: Calscience Work Order No.: 10-09-0529 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 09/08/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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,

Monde

Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

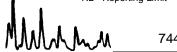
CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

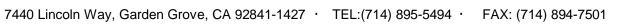


CH2M Hill	Date Received:	09/08/10
1000 Wilshire Blvd.	Work Order No:	10-09-0529
21st Floor	Preparation:	EPA 5030B
Los Angeles, CA 90017-2417	Method:	EPA 8015B (M)

Client Sample Number		Lab Sampl Number	e	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-0908		10-09-05	29-1-D	09/08/10 12:35	Aqueous	GC 29	09/09/10	09/09/10 18:51	100909B01
Comment(s): -Results were evalu	ated to the MDL,	concentrations >	= to the N	/IDL but < RI	L, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	<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	0		
1,4-Bromofluorobenzene	82	38-134							
Method Blank		099-12-24	47-4,482	N/A	Aqueous	GC 29	09/09/10	09/09/10 14:10	100909B01
Comment(s): -Results were evalu	ated to the MDL,	concentrations >	= to the N	/IDL but < RI	L, if found, ar	e qualified with	n a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<u> </u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
TPH as Gasoline	ND	100	48	1			ug/L		
Surrogates:	<u>REC (%)</u>	Control Limits	MDL			<u>Qual</u>	-		
1,4-Bromofluorobenzene	80	38-134							

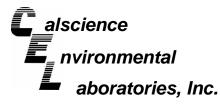
RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Page 1 of 1

IN ACCORD





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CH2M Hill
1000 Wilshire Blvd.
21st Floor
Los Angeles, CA 90017-2417

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

### 10-09-0529 EPA 5030C EPA 8260C ug/L

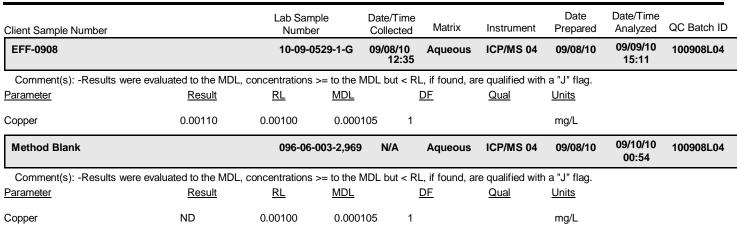
09/08/10

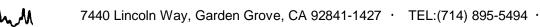
Project: SFPP - Norwalk	Site										Page	e 1 of <i>'</i>	1
Client Sample Number			Lab Sa Num			Date/Time Collected	Matrix	Instrument	Date Prepar		Date/Time Analyzed	QC Bat	ch ID
EFF-0908			10-09-	0529-1	-В	09/08/10 12:35	Aqueous	GC/MS XX	09/17/	10	09/17/10 12:34	100917	L01
Comment(s): -Results were eva	aluated to th	ne MDL, c	oncentrati	ions >=	to the N	/IDL but < RL	, if found, are	e qualified wi	th a "J" flag	<b>j</b> .			
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual	Parameter			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-But	tyl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u>al</u>		Surrogates:			<u>REC (%)</u>	<u>Con</u> Limi		<u>ual</u>	
Dibromofluoromethane	103	80-126				1,2-Dichloro	ethane-d4		90	80-1			
Toluene-d8	99	80-120				,	uorobenzene	ć	86	80-1	20		
Method Blank			099-14	I-106-8	2	N/A	Aqueous	GC/MS XX	09/17/	10	09/17/10 12:06	100917	L01
Comment(s): -Results were eva	aluated to th	ne MDL, c	oncentrati	ions >=	to the N	/IDL but < RL,	, if found, are	e qualified wi	th a "J" flag	<b>]</b> .			
Parameter_	Result	<u>RL</u>	MDL	DF	Qual	Parameter			<u>Result</u>	<u>RL</u>	MDL	DF	Qual
Benzene	ND	0.50	0.28	1		Toluene			ND	1.0	0.33	1	
2-Butanone	ND	10	6.9	1		p/m-Xylene			ND	1.0	0.45	1	
1,1-Dichloroethane	ND	1.0	0.37	1		o-Xylene			ND	1.0	0.24	1	
1,2-Dichloroethane	ND	0.50	0.31	1		Methyl-t-But	tyl Ether (MT	BE)	ND	1.0	0.30	1	
Ethylbenzene	ND	1.0	0.22	1									
Surrogates:	<u>REC (%)</u>	<u>Control</u> Limits	Qua	<u>al</u>		Surrogates:			<u>REC (%)</u>	<u>Con</u> Limi		ual	
Dibromofluoromethane	102	80-126				1,2-Dichloro	ethane-d4		90	80-1	31		
Toluene-d8	99	80-120				,	uorobenzene	e	87	80-1	20		

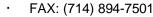












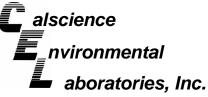
# Page 4 of 21

09/08/10 10-09-0529 EPA 3020A Total

N ACCORC

Page 1 of 1

EPA 6020



CH2M Hill	Date Received:	
1000 Wilshire Blvd.	Work Order No:	10
21st Floor	Preparation:	EPA 747
Los Angeles, CA 90017-2417	Method:	EP

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EFF-0908		10-09-0529-1-	6 09/08/10 12:35	Aqueous	Mercury	09/10/10	09/10/10 12:30	100910L02
Comment(s): -Results were	evaluated to the MDL, o	oncentrations >= to the	e MDL but < R	L, if found, ar	re qualified with	n a "J" flag.		
Parameter	Result	<u>RL</u> <u>MC</u>	<u>L</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		
Mercury	ND	0.0000500 0.0	000348 1			mg/L		
Method Blank		099-12-510-80	N/A	Aqueous	Mercury	09/10/10	09/10/10 12:14	100910L02
Comment(s): -Results were	evaluated to the MDL, c	oncentrations >= to the	e MDL but < R	L, if found, ar	re qualified with	n a "J" flag.		
Parameter	Result	<u>RL MD</u>	<u>L</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>		

~ M

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

# Page 5 of 21

N ACCORD

09/08/10 10-09-0529 EPA 7470A Total EPA 7470A

Page 1 of 1

alscience nvironmental aboratories, Inc. Page 6 of 21



CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

### Project: SFPP - Norwalk Site

Solids, Total Suspended (24)

Oil and Grease (24)

Date Received: Work Order No:

09/08/10 10-09-0529

Page 1 of 1

SM 2540 D

SM 5520 B

09/10/10

09/15/10

mg/L

mg/L

09/10/10

09/15/10

Client Sample Number			Lab Sample	e Number	Date Collected	Matri	x			
EFF-0908			10-09-052	29-1	09/08/10	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.										
Parameter	<u>Result</u>	<u>RL</u>	MDL	DF	Qual	<u>Units</u>	Date Prepared	Date Analyzed	Method	
Phenolics, Total (24)	ND	0.10	0.046	1		mg/L	09/14/10	09/14/10	EPA 420.1	
Chromium, Hexavalent (24)	ND	1.0	0.041	1		ug/L	N/A	09/08/10	EPA 7199	
Solids, Total Suspended (24)	2.1	1.0	0.95	1		mg/L	09/10/10	09/10/10	SM 2540 D	
Solids, Settleable (24)	ND	0.10	0.10	1		mL/L/hr	09/08/10	09/08/10	SM 2540 F	
Oil and Grease (24)	ND	1.0	0.88	1		mg/L	09/15/10	09/15/10	SM 5520 B	
Method Blank					N/A	Aqueo	bus			
Comment(s): (24) Results were	e evaluated to the	MDL, cor	ncentrations	>= to the	MDL but <	RL, if four	nd, are qualified wi	th a "J" flag.		
Parameter	<u>Result</u>	<u>RL</u>	MDL	<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	09/14/10	09/14/10	EPA 420.1	
Chromium, Hexavalent (24)	ND	1.0	0.041	1		ug/L	N/A	09/08/10	EPA 7199	

ND

ND

1.0

1.0

0.95

0.88

1

1





CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	09/08/10 10-09-0529
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

Quality Control Sample ID	Matrix	Instrument	Date Prepared		)ate alyzed	MS/MSD Batch Number
10-09-0440-1	Aqueous	ICP/MS 04	09/08/10	09/	10/10	100908S04
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Copper	91	93	72-108	2	0-10	

RPD - Relative Percent Difference, CL - Control Limit

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

L:(714) 895-5494 · FAX: (714) 894-7501



# **Quality Control - PDS / PDSD**



CH2M Hill	Date Received	09/08/10
1000 Wilshire Blvd.	Work Order No:	10-09-0529
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD_Batch Number
10-09-0440-1	Aqueous	ICP/MS 04	09/08/10	09/10/10	100908S04
Parameter	PDS %REC	PDSD %REC	<u>%REC CL</u>	RPD RPD	CL Qualifiers
Copper	88	89	75-125	1 0-10	)

RPD - Relative Percent Difference, CL - Control Limit

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09/08/10 10-09-0529 EPA 5030B EPA 8015B (M)





CH2M Hill	Date Received:
1000 Wilshire Blvd.	Work Order No:
21st Floor	Preparation:
Los Angeles, CA 90017-2417	Method:

### Project SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number
EFF-0908	Aqueous	GC 29	09/09/10		09/09/10	100909S01
Parameter	<u>MS %REC</u>	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	Qualifiers
TPH as Gasoline	106	107	68-122	0	0-18	

RPD - Relative Percent Difference, CL - Control Limit







Date Received: Work Order No:	09/08/10 10-09-0529
Preparation:	EPA 7470A Total
Method:	EPA 7470A
	Work Order No: Preparation:

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-09-0622-1	Aqueous	Mercury	09/10/10	09/10/10	100910S02
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u> <u>RPI</u>	<u>OCL</u> <u>Qualifiers</u>
Mercury	89	88	57-141	1 0-	10

RPD - Relative Percent Difference, CL - Control Limit

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

4 • FAX: (714) 894-7501





CH2M Hill 1000 Wilshire Blvd.	Date Received: Work Order No:	09/08/10 10-09-0529
21st Floor	Preparation:	EPA 5030C
Los Angeles, CA 90017-2417	Method:	EPA 8260C

Quality Control Sample ID	Matrix	Instrument	Date Prepared		Date Analyzed	MS/MSD Batch Number	
10-09-0723-4	Aqueou	Aqueous GC/MS XX			09/17/10	100917S01	
Parameter	MS %REC	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>	
Benzene	101	100	80-120	1	0-20		
Carbon Tetrachloride	97	95	55-151	2	0-20		
Chlorobenzene	98	97	80-120	1	0-20		
1,2-Dibromoethane	94	91	77-125	4	0-20		
1,2-Dichlorobenzene	94	94	78-120	0	0-20		
1,2-Dichloroethane	90	88	80-120	3	0-20		
1,1-Dichloroethene	101	96	69-129	5	0-20		
Ethylbenzene	96	93	73-127	2	0-20		
Toluene	99	98	80-120	1	0-20		
Trichloroethene	100	98	67-133	1	0-20		
Vinyl Chloride	90	88	67-133	2	0-20		
Methyl-t-Butyl Ether (MTBE)	95	92	65-131	4	0-22		

RPD - Relative Percent Difference, CL - Control Limit

# *alscience nvironmental* Quality Control - Spike/Spike Duplicate *aboratories, Inc.*

CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417 Date Received: Work Order No:



N/A

10-09-0529

N ACCOR

Project: SFPP - Norwalk Site

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	<u>Date</u> Analyzed	Date Extracted	<u>MS%</u> <u>REC</u>	MSD % REC	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qualifiers</u>
Chromium, Hexavalent	EPA 7199	EFF-0908	09/08/10	N/A	105	103	70-130	2	0-25	

RPD - Relative Percent Difference, CL - Control Limit







CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417 Date Received: Work Order No:

N/A 10-09-0529

Project: SFPP - Norwalk Site

### Matrix: Aqueous or Solid

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	<u>RPD</u>	RPD CL	Qualifiers
Solids, Settleable	SM 2540 F	10-09-0478-1	09/08/10	ND	ND	NA	0-25	
Solids, Total Suspended	SM 2540 D	10-09-0850-1	09/10/10	ND	ND	NA	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-09-0529
21st Floor	Preparation:	EPA 3020A Total
Los Angeles, CA 90017-2417	Method:	EPA 6020

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batc Number	h
096-06-003-2,969	Aqueous	ICP/MS 04	09/08/10	09/10/10	100908L04	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RPD	RPD CL	<u>Qualifiers</u>
Copper	106	106	8	80-120 1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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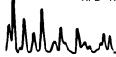




CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-09-0529
21st Floor	Preparation:	EPA 5030B
Los Angeles, CA 90017-2417	Method:	EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba Number	ıtch
099-12-247-4,482	Aqueous	GC 29	09/09/10	09/09/10	100909B01	
Parameter	LCS %		%REC %F	REC CL R	PD RPD CL	Qualifiers
TPH as Gasoline	<u>108</u>		<u> </u>		3 0-10	Quaimers

RPD - Relative Percent Difference, CL - Control Limit







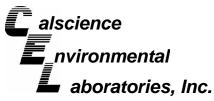
CH2M Hill	Date Received:	N/A
1000 Wilshire Blvd.	Work Order No:	10-09-0529
21st Floor	Preparation:	EPA 7470A Total
Los Angeles, CA 90017-2417	Method:	EPA 7470A

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bate Number	;h
099-12-510-80	Aqueous	Mercury	09/10/10	09/10/10	100910L02	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RPD	RPD CL	Qualifiers
Mercury	98	98	8	85-121 0	0-4	

RPD - Relative Percent Difference, CL - Control Limit

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N/A





CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417

Date Received: Work Order No: 10-09-0529 Preparation: EPA 5030C Method: EPA 8260C

### Project: SFPP - Norwalk Site

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed 09/17/10		Nalyzed Number	
099-14-106-82	Aqueous	GC/MS XX	09/17/10				
Parameter	LCS %REC	LCSD %REC	<u>%REC CL</u>	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Benzene	95	93	80-120	73-127	2	0-20	
Carbon Tetrachloride	92	88	67-139	55-151	3	0-22	
Chlorobenzene	90	88	80-120	73-127	3	0-20	
1,2-Dibromoethane	90	88	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	86	83	79-120	72-127	4	0-20	
1,2-Dichloroethane	87	84	80-120	73-127	4	0-20	
1,1-Dichloroethene	90	91	71-125	62-134	1	0-25	
Ethylbenzene	88	86	80-123	73-130	3	0-20	
Toluene	91	91	80-120	73-127	0	0-20	
Trichloroethene	94	93	80-120	73-127	1	0-20	
Vinyl Chloride	86	88	68-140	56-152	2	0-23	
Methyl-t-Butyl Ether (MTBE)	91	92	75-123	67-131	0	0-25	

Total number of LCS compounds : 12

Total number of ME compounds : 0

n M

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference, CL - Control Limit





CH2M Hill 1000 Wilshire Blvd. 21st Floor Los Angeles, CA 90017-2417 Date Received: Work Order No:



Project: SFPP - Norwalk Site

### Matrix: Aqueous or Solid

Parameter	Method	<u>Quality Control</u> Sample ID	<u>Date</u> Extracted	<u>Date</u> Analyzed	<u>LCS %</u> <u>REC</u>	LCSD % REC	<u>%REC</u> _ <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	Qual
Chromium, Hexavalent	EPA 7199	099-05-123-2,692	N/A	09/08/10	104	105	80-120	1	0-20	
Phenolics, Total	EPA 420.1	099-05-085-2,268	09/14/10	09/14/10	96	96	80-120	0	0-20	

RPD - Relative Percent Difference, CL - Control Limit





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# **Glossary of Terms and Qualifiers**



Work Order Number: 10-09-0529

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

· 7440 LINCOLN WAY	GARDEN GROVE, CA 9	
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92841-1432

CHAIN OF CUSTODY RECORD

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		Гау	e 21 of 21
Calscience · Environmental WORK ORDER #	: 10-0	9-00	29
SAMPLE RECEIPT FC	RM	Cooler	(of (
CLIENT: KMEP	<u> </u>	09/0	
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not froz	en)		
Temperature $\underline{\mathcal{A}} \cdot \underline{\mathcal{A}} \circ \mathbf{C} + 0.5 \circ \mathbf{C} (CF) = \underline{\mathcal{A}} \cdot \underline{\mathcal{F}} \circ \mathbf{C}$	Blank	🖾 Sam	ple
Sample(s) outside temperature criteria (PM/APM contacted by:).			
□ Sample(s) outside temperature criteria but received on ice/chilled on same	day of samp	oling.	
□ Received at ambient temperature, placed on ice for transport by 0		Ŷ	
Ambient Temperature:		Initi	al: <u>b.C</u>
			·····
CUSTODY SEALS INTACT:			· · · · · · · · · · · · · · · · · · ·
□ Cooler □ □ No (Not Intact) ☑ Not Presen	t □N/A	. Initi	ial: <u>p.C</u>
□ Sample □ □ No (Not Intact)	t	Initi	al: <u>B</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 labe	s.		
□ 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	🗹		
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace	e		
□ Unpreserved vials received for Volatiles analysis	e		
☐ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation	d d d		
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation <b>CONTAINER TYPE:</b> Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCord Water: □VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGB	☑ ☑ □ es® □Terra	aCores <sup>®</sup>	□ □ ☑ ☑
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation <b>CONTAINER TYPE:</b> Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCore	☑ ☑ □ es® □Terra	aCores <sup>®</sup>	□ □ ☑ ☑
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation <b>CONTAINER TYPE:</b> Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCord Water: □VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGB	⊄ ⊄ □ es® ⊡Terra o □1AGB s ⊉1PB	aCores <sup>®</sup>	□ □ ☑ ☑
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation <b>CONTAINER TYPE:</b> Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCord Water: □VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGBg □500AGB □500AGJ ☑500AGJs □250AGB □250CGB □250CGB □250PB ☑250PBn □125PB □125PBznna □100PJ □100PJna₂ □	Ø Ø D es <sup>®</sup> DTerra o D1AGB s Ø1PB	□ □ aCores <sup>®</sup> □ □1AGB <b>na</b> ₂ ☑500PB □	□ □ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑ ☑
□ Unpreserved vials received for Volatiles analysis Volatile analysis container(s) free of headspace Tedlar bag(s) free of condensation <b>CONTAINER TYPE:</b> Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCord Water: □VOA ☑VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □500AGB □500AGJ ☑500AGJs □250AGB □250CGB □250CGB	Ø Ø O 	Cores <sup>®</sup> □ □ □1AGBna₂ ☑500PB □ ☑/Checked by Reviewed by	□ □ ☑ ☑ □ ☑ □ ☑ □ □ ☑ □ □ ☑ □ □ ☑ □ □ ☑ □

SOP T100	_090	(05/10/10)
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September 10, 2010

Shawn P. Duffy/Daniel Jablonski CH2M HILL 155 Grand Avenue, Suite 1000 Oakland, CA 94612 TEL: (510) 587-7629 FAX: (510) 622-9129

CA-ELAP No.: 2676 NV Cert. No.: NV-009222007A

Workorder No.: N004591

RE: SFPP - Norwalk Site

Attention: Shawn P. Duffy/Daniel Jablonski

Enclosed are the results for sample(s) received on September 09, 2010 by Advanced Technology Laboratories - Las Vegas . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,

for genermunder

Jose Tenorio Jr. Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



<u>Advanced Technology</u> Laboratories

3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

### **Advanced Technology Laboratories - Las Vegas**

CLIENT:CH2M HILLProject:SFPP - Norwalk SiteLab Order:N004591

# CASE NARRATIVE

### SAMPLE RECEIVING/GENERAL COMMENTS:

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples are analyzed within method holding time.



# Advanced Technology Laboratories - Las Vegas

**Date:** 10-Sep-10

CLIENT: Project: Lab Order: Contract No:	CH2M HILL SFPP - Norwalk Site N004591		Work C	Order Sample	e Summary
Lab Sample ID	Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N004591-001A	EFF-0908	Water	9/8/2010 12:35:00 PM	9/9/2010	



# ANALYTICAL RESULTS

Print Date: 10-Sep-10

### Advanced Technology Laboratories - Las Vegas

**CLIENT:** Client Sample ID: EFF-0908 CH2M HILL Lab Order: N004591 Collection Date: 9/8/2010 12:35:00 PM SFPP - Norwalk Site **Project:** Matrix: WATER N004591-001 Lab ID: Analyses Result MDL PQL Qual Units DF **Date Analyzed ICP-MS METALS EPA 3010A EPA 6020** RunID: ICP4\_100910A QC Batch: 35206 PrepDate: 9/9/2010 Analyst: JT 9/10/2010 Selenium 2.6 0.29 0.50 μg/L 1 **ICP-MS METALS BY DRC-TECHNOLOGY** EPA 3010A EPA 6020 RunID: ICP4 100910B QC Batch: 35206 PrepDate: 9/9/2010 Analyst: JT 0.76 9/10/2010 Selenium 0.50 0.50 μg/L 1

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out

E Value above quantitation range

ND Not Detected at the Reporting Limit Results are wet unless otherwise specified

Advanced Technology Laboratories

<u>v</u> 3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

CLIENT: CH2M HILL Work Order: N004591	Γ			$\mathbf{A}$	NALYTICAL QC SI	ANALYTICAL QC SUMMARY REPORT
	walk Site				TestCode: 6020_W	6020_W
Sample ID: <b>MB-35206</b> Client ID: <b>PBW</b>	SampType: <b>MBLK</b> Batch ID: <b>35206</b>	TestCode: 6020_W TestNo: EPA 6020	Units: µg/L EPA 3010A	F Anal	Prep Date: 9/9/2010 Analysis Date: 9/10/2010	RunNo: <b>77710</b> SeqNo: <b>1209450</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC Lo	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	ΠN	0.50				
Sample ID: LCS-35206 Client ID: LCSW	SampType: LCS Batch ID: 35206	TestCode: <b>6020_W</b> TestNo: <b>EPA 6020</b>	Units: µg/L EPA 3010A	F	Prep Date: 9/9/2010 Analysis Date: 9/10/2010	RunNo: <b>77710</b> SeqNo: <b>1209451</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC Lo	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	11.849	0.50 12.50	0	94.8	85 115	
Sample ID: N004591-001A-DT 5 Client ID: ZZZZZ	SampType: <b>DUP</b> Batch ID: <b>35206</b>	TestCode: <b>6020_W</b> TestNo: <b>EPA 6020</b>	Units: µg/L EPA 3010A	F	Prep Date: Analysis Date: 9/10/2010	RunNo: <b>77710</b> SeqNo: <b>1209453</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC Lo	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	3.981	2.5			2.620	41.2 20 R
Sample ID: N004591-001A-MS Client ID: ZZZZZ	SampType: <b>MS</b> Batch ID: <b>35206</b>	TestCode: <b>6020_W</b> TestNo: <b>EPA 6020</b>	Units: µg/L EPA 3010A	Anal	Prep Date: 9/9/2010 Analysis Date: 9/10/2010	RunNo: 77710 SeqNo: 1209454
Analyte	Result	PQL SPK value	SPK Ref Val	%REC Lo	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	17.089	0.50 12.50	2.620	116	75 125	
Sample ID: N004591-001A-MSD Client ID: ZZZZZ	SampType: <b>MSD</b> Batch ID: <b>35206</b>	TestCode: <b>6020_W</b> TestNo: <b>EPA 6020</b>	Units: µg/L EPA 3010A	Anal	Prep Date: 9/9/2010 Analysis Date: 9/10/2010	RunNo: <b>77710</b> SeqNo: <b>1209455</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC Lo	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	17.839	0.50 12.50	2.620	122	75 125 17.09	4.29 20

Qualifiers:

- B Analyte detected in the associated Method Blank ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out

<u>Advanced Technology</u> Laboratories

- RPD outside accepted recovery limits Value above quantitation range В

- Calculations are based on raw values

3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

- Spike/Surrogate outside of limits due to matrix interference H Holding times for preparation or analysis exceeded
   S Spike/Surrogate outside of limits due to matrix inter-

Advanced Technology Laboratories - Las Vegas

CLIENT: CH2M HILL Work Order: N004591	Ţ				ANALYTICAL QC SUMMARY REPORT	MMARY REPORT
	walk Site				TestCode: 6	TestCode: 6020_W_DRC
Sample ID: <b>MB-35206</b> Client ID: <b>PBW</b>	SampType: MBLK Batch ID: 35206	TestCode: <b>6020_W_DRC</b> Units: µg/L TestNo: EPA 6020 EPA 3010A	<pre>C Units: µg/L EPA 3010A</pre>	×	Prep Date: 9/9/2010 Analysis Date: 9/10/2010	RunNo: 77714 SeqNo: 1209482
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	DN	0.50				
Sample ID: LCS-35206 Client ID: LCSW	SampType: LCS Batch ID: 35206	TestCode: 6020_W_DRC Units: µg/L TestNo: EPA 6020 EPA 3010A	tc Units: µg/L EPA 3010A	A	Prep Date: <b>9/9/2010</b> Analysis Date:    9/10/2010	RunNo: <b>77714</b> SeqNo: <b>1209483</b>
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	12.226	0.50 12.50	0	97.8	85 115	
Sample ID: N004591-001A-MS Client ID: ZZZZZ	SampType: <b>MS</b> Batch ID: <b>35206</b>	TestCode: 6020_W_DRC Units: µg/L TestNo: EPA 6020 EPA 3010A	C Units: µg/L EPA 3010A	A	Prep Date: <b>9/9/2010</b> Analysis Date:    9/10/2010	RunNo: 77714 SeqNo: 1209486
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	11.748	0.50 12.50	0.7650	87.9	75 125	
Sample ID: N004591-001A-MSD Client ID: ZZZZZ	SampType: <b>MSD</b> Batch ID: <b>35206</b>	TestCode: 6020_W_DRC Units: µg/L TestNo: EPA 6020 EPA 3010A	<pre>C Units: µg/L EPA 3010A</pre>	▼	Prep Date: 9/9/2010 Analysis Date: 9/10/2010	RunNo: 77714 SeqNo: 1209487
Analyte	Result	PQL SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Selenium	12.588	0.50 12.50	0.7650	94.6	75 125 11.75	6.90 20

Qualifiers:

- B Analyte detected in the associated Method Blank ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
    - <u>Advanced Technology</u> Laboratories

3151 W. Post Road, Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

- RPD outside accepted recovery limits Calculations are based on raw values

Value above quantitation range

н н

- H Holding times for preparation or analysis exceededS Spike/Surrogate outside of limits due to matrix interference

Advanced Technology Laboratories 3151 W. Post Road

CHAIN OF CUSTODY RECORD

	Las Vegas, NV 89118										PAGE:	-	 ۳	-
-e C <sup>7</sup>	Tel: (702) 307-2659 • Fax: (702) 307-2691	: (702) 307-2691												
	Marion Cartin [marion@ati-labs.com]	ttl-labs.com]					2.00							
LABOR	LABORATORY CLIENT					o	CLIENT PROJECT NAME / NUMBER.	NAME / NUM	BER.			P.O. NO.		
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Advanced Technology Laboratories

3151 W. Post Road

Las Vegas, NV 89118 Tel: (702) 307-2659 • Fax: (702) 307-2691

	Marion Cartin Imarlon@atl-labs.com]	I-lahs.com]													ſ
LABC	LABORATORY CLIENT:					CLIE	ENT PROJEC	CLIENT PROJECT NAME / NUMBER:	BER:				P.O. NO.		
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CHAIN OF CUSTODY RECORD DATE: 07/08///0 PAGE: 1 0F 1

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# Advanced Technology Laboratories - Las Vegas

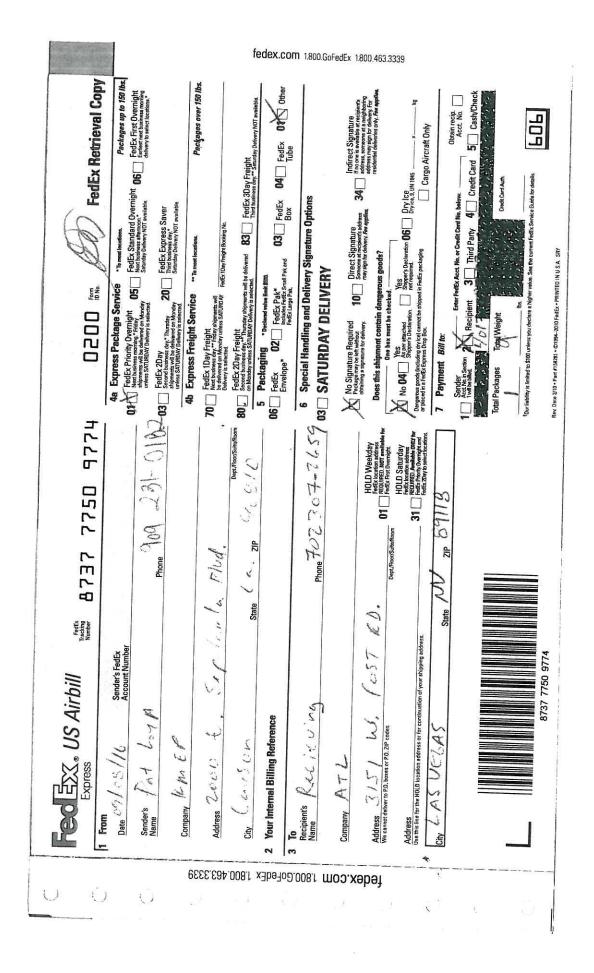
Please review the checklist below. Any NO and/or NA signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (562) 989-4045.

## Sample Receipt Checklist

Client Name: CH2M HILL-OAKLAND		Date Time Red	ceived: 9/9/2	2010 9:56:22 AM
Work Order Number: N004591		Received by:	GG	
Cooler Temp (Deg C): 4.8				- 1
Checklist completed by:	)	Reviewed by:	NS Initials	a a la lu Date
Carrier name:	<u>FedEx</u>			
1. Shipping container/cooler in good condition?	Yes 🖌	No	Not Present	
2. Custody seals intact on shippping container/cooler?	Yes	No 🗔	Not Present	$\checkmark$
3. Custody seals intact on sample bottles?	Yes	No 🗌	Not Present	
4. Chain of custody present?	Yes 🖌	No 🗌		
5. Sampler's name present in COC?	Yes 🖌	No 🗌		
6. Chain of custody signed when relinquished and received?	Yes 🔽	No		
7. Chain of custody agrees with sample labels?	Yes 🖌	No		
8. Samples in proper container/bottle?	Yes 🔽	No		
9. Sample containers intact?	Yes 🔽	No		
10. Sufficient sample volume for indicated test?	Yes 🗸	No		
11. All samples received within holding time?	Yes 🔽	No		
12. Container/Temp Blank temperature within acceptance limit?	Yes 🖌	No 🗌	NA	
13. Water - VOA vials have zero headspace?	Yes 🗌	No	NA	
14. Water - pH acceptable upon receipt? Example: pH > 12 for (CN,S); pH<2 for Metals	Yes 🗹	No	NA	

Comments:



**Advanced Technology Laboratories - Las Vegas** 

# WORK ORDER Summary

Client ID: CH2M HILL-OAKLAND

SFPP - Norwalk Site

Project:

09-Sep-10 WorkOrder: N004591 Date Received: 9/9/2010

HId MS Sub Storage Report to D. Jablonski/CH2M HILL (djablon1@ch2m.com) Report to S.Duffy/CH2M HILL (sduffy@ch2m.com) "J" Flag required / Use lowest possible detec Test Name Test No Matrix Date Due Date Collected Client Sample ID Comments: Sample ID

QC Level: RTNE

and his	Circuit Dampie	Date Collected	Date Due	XI INPIA	Mauly Lesun	I est iname	HIG MIS SUD STORAGE
N004591-001A	EFF-0908	9/8/2010 12:35:00 PM	9/10/2010	Water	EPA 3010A	AQPREP TOTAL METALS: ICP, FLAA	MM
			9/10/2010		EPA 6020	ICP-MS METALS	<b>m</b>
			9/10/2010		EPA 6020	ICP-MS METALS BY DRC- TECHNOLOGY	mm
N004591-002A Folder	Folder	9/9/2010 9:57:29 AM	9/10/2010		Folder	Folder	TAB

Appendix B Laboratory Analytical Reports and Chain-of-Custody Documents for Selenium Confirmation Monitoring Event



July 28, 2010

Stephen Nowak Calscience Environmental Laboratories 7440 Lincoln Way Garden Grove, CA 92841 (714) 895-5494

Project Name: Selenium Investigation

Dear Mr. Nowak,

Attached is the report associated with nine (9) aqueous samples submitted for total (unfiltered) selenium analysis on July 21, 2010. The samples were received on July 23, 2010 in a sealed cooler at 0.2°C. Total selenium analysis was performed via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

Russell Gerads Vice President Applied Speciation and Consulting, LLC

Applied Speciation and Consulting, LLC

Report prepared for:

Stephen Nowak Calscience Environmental Laboratories 7440 Lincoln Way Garden Grove, CA 92841

July 28, 2010

# 1. Sample Reception

Nine (9) aqueous samples in 125mL HDPE bottles (not provided by Applied Speciation and Consulting) were submitted for total (unfiltered) selenium analysis on July 21, 2010. The samples were received at Applied Speciation and Consulting (ASC) in acceptable condition on July 23, 2010 in a sealed cooler at 0.2°C.

The samples were received in a laminar flow clean hood void of trace metals contamination and ultra-violet radiation. Upon reception, all samples were designated discrete sample identifiers and were placed in a secure polyethylene container, known to be free from trace metals contamination, until all preparation and analysis could be performed.

# 2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are monitored for contamination to account for any biases associated with the sample results.

<u>Total (Unfiltered) Selenium Quantitation by ICP-DRC-MS (EPA Method 6020)</u> All preservation and filtration procedures were applied prior to reception at ASC. All samples were digested on a hotblock apparatus with HNO<sub>3</sub> and HCl, in accordance with the digestion procedure specified in EPA Method 3005 (required digestion for EPA Method 6020). All resulting sample digests were analyzed for selenium via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS).

# 3. Sample Analysis

All sample analysis is preceded by a minimum of a five-point calibration curve spanning the entire concentration range of interest. Calibration curves are performed at the beginning of each analytical day. All calibration curves, associated with each species of interest, are standardized by linear regression resulting in a response factor. All sample results are **instrument blank** corrected to account for any operational biases associated with the analytical platform.

Prior to sample analysis, all calibration curves are verified using second source standards which are identified as initial calibration verification standards (ICV).

Ongoing instrument performance is identified by the analysis of continuing calibration verification standards (CCV) and continuing calibration blanks (CCB) at a minimal interval of every ten analytical runs.

<u>Total (Unfiltered) Selenium Quantitation by ICP-DRC-MS (EPA Method 6020)</u> The samples for total selenium quantitation were analyzed via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS) on July 28, 2010. Aliquots of each sample or sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with interfering ions of the same target mass to charge ratios (m/z). A solid-state detector detects ions transmitted through the mass analyzer, on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

# 4. Analytical Issues

The overall analyses went very well and no analytical issues were encountered. All quality control parameters associated with these samples were within acceptance limits.

If you have any questions or concerns regarding this report, please feel free to contact me.

Sincerely,

Russell Gerads Vice President Applied Speciation and Consulting, LLC

Metals Results for Calscience Environmental Laboratories Contact: Stephen Nowak Project Name: Selenium Investigation

> Date: July 28, 2010 Report Generated by: Russell Gerads Applied Speciation and Consulting, LLC

# Sample Results

	Date		
Sample ID	Sampled	Status	Total Se
GWR-3	7/22/2010	unpreserved	0.628
GWR-3	7/22/2010	preserved	0.450
GWR-3	7/22/2010	Field filtered and preserved	0.275
Influent	7/22/2010	unpreserved	0.572
Influent	7/22/2010	preserved	1.27
Influent	7/22/2010	Field filtered and preserved	0.766
Effluent	7/22/2010	unpreserved	0.209
Effluent	7/22/2010	preserved	0.170
Effluent	7/22/2010	Field filtered and preserved	0.148

All results are reported in  $\mu$ g/L and reflect the applied dilution

## Metals Results for Calscience Environmental Laboratories Contact: Stephen Nowak Project Name: Selenium Investigation

Date: July 28, 2010 Report Generated by: Russell Gerads Applied Speciation and Consulting, LLC

# **Quality Control Summary - Preparation Blank Summary**

									eMDL at
Analyte	Units	PBW1	PBW2	PBW3	PBW4	Mean	StdDev	eMDL	10x
Total Se	µg/L	0.080	0.069	0.104	0.037	0.073	0.028	0.008	0.084

eMDL = Estimated Method Detection Limit

## **Quality Control Summary - Certified Reference Materials**

Analyte	Units	CRM	True Value	Result	Recovery
Total Se	µg/L	TMDA-70	25.9	23.5	90.6

# Metals Results for Calscience Environmental Laboratories Contact: Stephen Nowak Project Name: Selenium Investigation

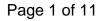
Date: July 28, 2010 Report Generated by: Russell Gerads Applied Speciation and Consulting, LLC

# **Quality Control Summary - Matrix Duplicates**

Analyte	Units	Sample ID	Status	Rep 1	Rep 2	Mean	RPD
Total Se	µg/L	Influent	unpreserved	0.572	0.617	0.595	7.5

## Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

								MSD		
Analyte	Units	Sample ID	Status	Spike Conc	MS Result	Recovery	Spike Conc	Result	Recovery	RPD
Total Se	µg/L	Influent	unpreserved	500.0	486.2	97.2	500.0	446.8	89.3	8.4







July 28, 2010

Mark Wuttig CH2M Hill 325 East Hillcrest Dr. Suite 125 Thousand Oaks, CA 91360

# Subject:Calscience Work Order No.:10-07-1620Client Reference:DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/22/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. 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,

Monde

Calscience Environmental Laboratories, Inc. Stephen Nowak Project Manager

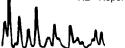
CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

# Calscience nvironmental aboratories, Inc.

AMEC Geomatrix, Inc.	Date Received:	07/22/10
510 Superior Avenue	Work Order No:	10-07-1620
Suite 200	Preparation:	EPA 3005A Filt.
Newport Beach, CA 92663-3627	Method:	EPA 6020

# Project: DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

								-
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
GWR-3 (Field Filtered)		10-07-1620-1-A	07/22/10 07:53	Aqueous	ICP/MS 04	07/23/10	07/26/10 10:55	100723L01
Parameter	<u>Result</u>	RL	DE	<u>Qual</u>	<u>Units</u>			
Selenium	0.0117	0.00100	1		mg/L			
INFLUENT (Field Filtered)		10-07-1620-4-A	07/22/10 10:08	Aqueous	ICP/MS 04	07/23/10	07/26/10 11:04	100723L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Selenium	0.00517	0.00100	1		mg/L			
EFFLUENT (Field Filtered)		10-07-1620-7-A	07/22/10 08:51	Aqueous	ICP/MS 04	07/23/10	07/26/10 11:23	100723L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Selenium	0.00503	0.00100	1		mg/L			



Page 1 of 3

NACCOR

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

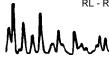
# Calscience Invironmental Aboratories, Inc.

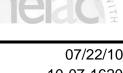
AMEC Geomatrix, Inc.	Date Received:	07/22/10
510 Superior Avenue	Work Order No:	10-07-1620
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

# Project: DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

Date/Time Date Lab Sample Date/Time QC Batch ID Matrix Instrument Prepared Analyzed **Client Sample Number** Number Collected 07/26/10 GWR-3 (Preserved) ICP/MS 04 07/23/10 100723L01 07/22/10 07:53 Aqueous 10-07-1620-2-A 10:58 Parameter **Result** <u>RL</u> DF Qual Units Selenium 0.0125 0.00100 1 mg/L 07/26/10 GWR-3 (Unpreserved) 07/22/10 07:53 Aqueous ICP/MS 04 07/23/10 100723L01 10-07-1620-3-A 11:01 Parameter Result RL DF Qual <u>Units</u> 0.0113 0.00100 1 Selenium mg/L 07/26/10 Aqueous ICP/MS 04 **INFLUENT (Preserved)** 07/22/10 10:08 07/23/10 100723L01 10-07-1620-5-A 11:07 DF Parameter Result <u>RL</u> Qual Units Selenium 0.00555 0.00100 1 mg/L 07/26/10 **INFLUENT (Unpreserved)** Aqueous ICP/MS 04 07/23/10 100723L01 10-07-1620-6-A 07/22/10 10:08 11:20 Parameter Result <u>RL</u> DF Qual <u>Units</u> Selenium 0.00540 0.00100 1 mg/L 07/26/10 **EFFLUENT (Preserved)** Aqueous ICP/MS 04 07/23/10 100723L01 10-07-1620-8-A 07/22/10 08:51 11:27 DF RL Qual <u>Units</u> Parameter Result Selenium 0.00488 0.00100 1 mg/L 07/26/10 **EFFLUENT (Unpreserved)** Aqueous ICP/MS 04 100723L01 07/23/10 10-07-1620-9-A 07/22/10 11:30 Result RL DF Qual Units Parameter mg/L Selenium 0.00413 0.00100 1

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





Page 2 of 3

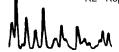
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<b>E</b> _n	vironmental
	aboratories, Inc.

AMEC Geomatrix, Inc.	Date Received:	07/22/10
510 Superior Avenue	Work Order No:	10-07-1620
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

# Project: DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

		,						0
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		096-06-003-2,904	N/A	Aqueous	ICP/MS 04	07/23/10	07/23/10 11:29	100723L01
Parameter	<u>Result</u>	<u>RL</u>	DF	<u>Qual</u>	<u>Units</u>			
Selenium	ND	0.00100	1		mg/L			



# Page 4 of 11

Page 3 of 3

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AMEC Geomatrix, Inc.	Date Received:	07/22/10
510 Superior Avenue	Work Order No:	10-07-1620
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

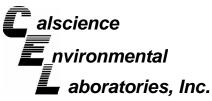
Project DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

Quality Control Sample ID	Matrix	Instrument	Date Prepared	A	Date nalyzed	MS/MSD Batch Number
10-07-1662-1	Aqueous	ICP/MS 04	07/23/10	0	07/23/10	100723S01
Parameter	<u>MS %REC</u>	MSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Selenium	85	94	59-125	9	0-12	

RPD - Relative Percent Difference, CL - Control Limit

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

5494 · FAX: (714) 894-7501





AMEC Geomatrix, Inc.	Date Received	07/22/10
510 Superior Avenue	Work Order No:	10-07-1620
Suite 200	Preparation:	EPA 3020A Total
Newport Beach, CA 92663-3627	Method:	EPA 6020

# Project: DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Ana	lyzed F	PDS / PDSD Batch Number
10-07-1662-1	Aqueous	ICP/MS 04	07/23/10	07/23/	/10	100723S01
Parameter	PDS %REC	PDSD %REC	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Selenium	93	99	75-125	5	0-12	

RPD - Relative Percent Difference, CL - Control Limit

hM

7440 Lincoln Way, Garden Grove, CA 92841-1427  $\cdot$   $\ \mbox{TEL:}(714)$  895-5494  $\cdot$ FAX: (714) 894-7501





AMEC Geomatrix, Inc. 510 Superior Avenue Suite 200

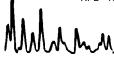
Newport Beach, CA 92663-3627

Date Received: Work Order No: Preparation: Method: N/A 10-07-1620 EPA 3020A Total EPA 6020

Project: DFSP Norwalk / 15306 Norwalk Blvd, Norwalk

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Bato Number	ch
096-06-003-2,904	Aqueous	ICP/MS 04	07/23/10	07/23/10	100723L01	
Parameter	LCS %	REC LCSD	<u>%REC %F</u>	REC CL RPD	<u> RPD CL</u>	Qualifiers
Selenium	92	93	8	80-120 1	0-20	

RPD - Relative Percent Difference, CL - Control Limit



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



· M.M

# **Glossary of Terms and Qualifiers**



Work Order Number: 10-07-1620

<u>Qualifier</u>	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
В	Analyte was present in the associated method blank.
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.
Х	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

						10007								(1950)	$\bigcirc$		
		LL Z			SAN IO	1680 ROGERS AVENUE SAN JOSE CALIEORNIA 95112-1105	1680 ROGERS AVENUE		NDUCT /	CONDUCT ANALYSIS	TO DETECT		LAB	Calscience	ce COC		
1	TECH SERVICES, INC.	VICES, INC.				PHO	FAX (408) 573-7771 PHONE (408) 573-0555	73-7771 73-0555				<u>ш х </u>	Billing Information: Kinder Morgan 1100 Town and CountryRd.	untryRd.			
	CHAIN OF CUSTODY	тору						 ר					range CA 95112				
	CLIENT			Kin	Kinder Morgan	rdan							Kinder Morgan Norwalk	nwalk			
	SITE			DE	DFSP Norwalk	walk				wr			Report to: Mark Wuttig				
1			153	06 Nor	walk Bl	15306 Norwalk Blvd, Norwalk	- A B K						CHZMHILL 325 East Hillcrest Dr., Suite 125	Dr., Suite 125			
				MATRIX		CONTAINERS	RS						Thousand Oaks, CA 91360	CA 91360			
	SAMPLE I.D.	DATE	TIME	AQ= Water	<u>ت</u> #	Preservation		Field Filtered		∋S listoT Dissolve		¥	ADD'L INFORMATION		CONDITION		I AB SAMPI F #
					- -	HNO3	250mL Poly	YES		×							
	GWR-3	07/22/10	0753 AG	AG	- - -	1 HNO3	250mL Poly	ON	_×								
;					1 NP		250mL Poly	ON	_ ×							6	
					- H	HNO3	250mL Poly	YES		×				 		4	
	INFLUENT	07/22/10	8001	РA	- -	HNO3	250mL Poly	Q	_×							5	
1					1 NP		250mL Poly	NO	×								
				ر ح	Ţ 7	1 HNO3	250mL Poly	YES		×							
	EFFLUENT	07/22/10	085/49	y t	T T	1 HNO3	250mL Poly	Q	_×							$\otimes$	
					1 NP		zoumL Poly	NO	_×							0	
	COMPLETED	10/21/0	TIME נסאל (	SAMPLING PERFORMED BY	IG MED BY	Cody	Shach ro.	2000	5			NC RE	RESULTS NEEDED NO LATER THAN	Standard			
- I		<b>M</b>						h	1/ C	о 0	RECE		ANNALL	CEL	DATE	Ш / С	TIME (24
<u> </u>	RELEASED BY	3							TIME	ω	RECE	RECEIVED BY					
<u> </u>	RELEASED BY								TIME	Ш	RECE	RECEIVED BY			DATE	<u>II</u>	e 9 of
<u> </u>	SHIPPED VIA					i i			MIL	TIME SENT	COOLER #	ER#					11
											_						

and Million .		Page 1	10 of 11
Calscience · WORK ORDER #:	10-07	7-1101	20
SAMPLE RECEIPT FOR	RM c	;ooler _/	of _/_
CLIENT: BTS	DATE:	07/23	/ 10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen		<b>—</b> .	
Temperature $\underline{1}, \underline{4}$ °C + 0.5 °C (CF) = $\underline{1}, \underline{7}$ °C	<b>B</b> lank	□ Sample	
□ Sample(s) outside temperature criteria (PM/APM contacted by:).			
□ Sample(s) outside temperature criteria but received on ice/chilled on same da		ing.	
Received at ambient temperature, placed on ice for transport by Control	urier.		ħ/
Ambient Temperature:  Air  Filter  Metals Only  PCBs C	Dnly	Initial:	<u>þ.C</u>
CUSTODY SEALS INTACT:			
□ Cooler □ · □ No (Not Intact) ☑ Not Present	□ N/A	Initial:	p.L
□ Sample □ □ No (Not Intact) □ Not Present	L	Initial:	
SAMPLE CONDITION:	Yes	Νο	N/A
Chain-Of-Custody (COC) document(s) received with samples	. 🗹		
COC document(s) received complete		Ļ	
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	Ø		
Sample container(s) intact and good condition	<u>a</u>		
Proper containers and sufficient volume for analyses requested	e		
Analyses received within holding time			
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours			
Proper preservation noted on COC or sample container	7/22/10	Ø	
□ Unpreserved vials received for Volatiles analysis	fim		
Volatile analysis container(s) free of headspace			Ø
Tedlar bag(s) free of condensation CONTAINER TYPE:			ď
Solid:  40zCGJ  80zCGJ  160zCGJ  Sleeve ()  EnCores	s® ⊡Terra	Cores <sup>®</sup> □	
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp		□1AGBna₂ □	1AGB <b>s</b>
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs 図250PB 図250PBn □125PB □125PBznna □100PJ □100PJna <sub>2</sub> Д <u>ン</u>	□1PB   PBnf □	□500PB □50	0PB <b>na</b>
Air: DTedlar <sup>®</sup> DSumma <sup>®</sup> Other: D Trip Blank Lot#:	Labeled/	Checked by:	NG
Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: E Preservative: h: HCL n: HNO <sub>3</sub> na <sub>2</sub> :Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> na: NaOH p: H <sub>3</sub> PO <sub>4</sub> s: H <sub>2</sub> SO <sub>4</sub> znna: ZnAc <sub>2</sub> +NaOH f:	Envelope <b>F</b>	Reviewed by: <u>}</u>	NSC

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SOP T100\_090 (05/10/10)

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WORK ORDER #: 10-07-

# SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & I	ABELS:			Comm	ents:		
<ul> <li>SAMPLES - CONTAINERS &amp; I</li> <li>Sample(s)/Container(s) NOT</li> <li>Sample(s)/Container(s) received</li> <li>Holding time expired – list satisfication of the second s</li></ul>	RECEIVED I ived but NOT imple ID(s) an alysis – list te - list test - list test OC or label – e test/containe h COC – Note	r LISTEE nd test est list test a er type	<b>) on COC</b> & notify lab	(3,6 UN	<u>\</u>		, 2.50PB
□ Project Information				<u></u>			
☐ # of Container(s) ☐ Analysis ☐ Sample container(s) compro	micod Net	o in com-	monto		<u></u>		;
<ul> <li>Outling Container(s) compto</li> <li>Water present in sample</li> <li>Broken</li> <li>Without Label(s)</li> <li>Air sample container(s) com</li> <li>Flat</li> <li>Very low in volume</li> <li>Leaking (Not transferred int</li> <li>Leaking (transferred int</li> <li>Deaking (transferred int</li> <li>HEADSPACE – Containers with</li> </ul>	e container npromised – d - duplicate to Calscienc to Client's Te	Note in o bag sul e Tedlar edlar <sup>®</sup> Ba	comments bmitted) <sup>®</sup> Bag*) ag*)				
Sample # Container # of Vials Sample # ID(s) Received	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	- / <b>-</b>	Analysis
Comments:							
*Transferred at Client's request.			a 	lr	nitial / Da		> 07 /22/10 OP T100_090 (01/29/10



# ANALYTICAL REPORT

Job Number: 280-5643-1 SDG Number: Norwalk Station Job Description: Kinder Morgan DFSP Norwalk

> For: CH2M Hill, Inc. 1000 Wilshire Boulevard 21st Floor Los Angeles, CA 90017 Attention: Mr. Daniel Jablonski

Michelle A. John

Approved for release. Michelle Johnston Project Manager I 8/13/2010 9:23 AM

Michelle Johnston Project Manager I michelle.johnston@testamericainc.com 08/13/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.



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# CASE NARRATIVE Client: CH2M Hill Project: Kinder Morgan DFSP Norwalk Report Number: 280-5643-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

#### Sample Receipt

The following report contains the analytical results for three water samples received July 23, 2010, according to documented sample acceptance procedures. The samples were received at a temperature of 1.8°C. No anomalies were encountered during sample receipt.

#### Total Metals - 6020A (Unpreserved)

Samples GWR-3 (280-5643-4), INFLUENT (280-5643-5) and EFFLUENT (280-5643-6) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 08/10/2010 and analyzed on 08/10/2010.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interferences, samples GWR-3 (280-5643-4), INFLUENT (280-5643-5) and EFFLUENT (280-5643-6) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

Selenium Iron failed the recovery criteria low for the MS and MSD of sample GWR-3 (280-5643-4) in prep batch 280-25914. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits

#### Total Metals - 6020A (Preserved)

Samples GWR-3 (280-5643-1), INFLUENT (280-5643-2) and EFFLUENT (280-5643-3) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 07/29/2010 and analyzed on 08/03/2010.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interferences, samples GWR-3 (280-5643-1), INFLUENT (280-5643-2) and EFFLUENT (280-5643-3) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

No difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits

#### **Dissolved Metals - 6020A**

Samples GWR-3 (280-5643-1), INFLUENT (280-5643-2) and EFFLUENT (280-5643-3) were analyzed for metals (ICPMS) in accordance with EPA SW-846 Methods 6020A. The samples were prepared on 07/28/2010 and analyzed on 08/03/2010.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to matrix interferences, samples GWR-3 (280-5643-1), INFLUENT (280-5643-2) and EFFLUENT (280-5643-3) had to be analyzed at dilutions. The reporting limits have been adjusted relative to the dilutions required.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

# **EXECUTIVE SUMMARY - Detections**

Client: CH2M Hill, Inc.

Job Number: 280-5643-1

Lab Sample ID	Client Sample ID		Reporting		
Analyte		Result / Qualifier	Limit	Units	Method

No Detections

# **METHOD SUMMARY**

Client: CH2M Hill, Inc.

Job Number: 280-5643-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP/MS)	TAL DEN	SW846 6020A	
Sample Filtration, Field	TAL DEN		FIELD_FLTRD
Preparation, Total Recoverable or Dissolved Metals	TAL DEN		SW846 3005A

## Lab References:

TAL DEN = TestAmerica Denver

#### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

# METHOD / ANALYST SUMMARY

Client: CH2M Hill, Inc.

Job Number: 280-5643-1

Method

SW846 6020A

Lill, Thomas E

Analyst

Analyst ID

# SAMPLE SUMMARY

# Client: CH2M Hill, Inc.

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-5643-1	GWR-3	Water	07/22/2010 0753	07/23/2010 0945
280-5643-2	INFLUENT	Water	07/22/2010 1008	07/23/2010 0945
280-5643-3	EFFLUENT	Water	07/22/2010 0851	07/23/2010 0945
280-5643-4	GWR-3	Water	07/22/2010 0753	07/23/2010 0945
280-5643-5	INFLUENT	Water	07/22/2010 1008	07/23/2010 0945
280-5643-6	EFFLUENT	Water	07/22/2010 0851	07/23/2010 0945

# SAMPLE RESULTS

Client: CH2M Hill, Inc.

Client Sample ID:	GWR-3					
Lab Sample ID: Client Matrix:	280-5643-1 Water					led: 07/22/2010 0753 ived: 07/23/2010 0945
					Bato Rooo	
		6020A Metals (ICP/MS)-Total I	Recoverable			
Method:	6020A	Analysis Batch: 280-25232		Instrument ID:	MT	_024
Preparation:	3005A	Prep Batch: 280-24388		Lab File ID:	177	7SMPL.D
Dilution:	2.0			Initial Weight/Volu	me: 50	mL
Date Analyzed:	08/03/2010 0213			Final Weight/Volu	me: 50	mL
Date Prepared:	07/29/2010 1400					
Analyte		Result (ug/L)	Qualifier	MDL		RL
Selenium		ND		1.4		10
		6020A Metals (ICP/MS)-Di	ssolved			
Method:	6020A	Analysis Batch: 280-25424		Instrument ID:	MT	_024
Preparation:	3005A	Prep Batch: 280-24422		Lab File ID:		– ISMPL.D
Dilution:	2.0			Initial Weight/Volu	me: 50	mL
Date Analyzed:	08/03/2010 2220			Final Weight/Volu	me: 50	mL
Date Prepared:	07/28/2010 1100					
Analyte		Result (ug/L)	Qualifier	MDL		RL
Selenium		ND		1.4		10

Client: CH2M Hill, Inc.

Client Sample ID:	INFLUENT				
Lab Sample ID:	280-5643-2				Date Sampled: 07/22/2010 1008
Client Matrix:	Water				Date Received: 07/23/2010 0945
		6020A Metals (ICP/MS)-Total	Recoverable		
Method:	6020A	Analysis Batch: 280-25232		Instrument ID:	MT_024
Preparation:	3005A	Prep Batch: 280-24388		Lab File ID:	178AREF.D
Dilution:	2.0			Initial Weight/Volu	me: 50 mL
Date Analyzed:	08/03/2010 0216			Final Weight/Volu	me: 50 mL
Date Prepared:	07/29/2010 1400				
Analyte		Result (ug/L)	Qualifier	- MDL	RL
Selenium		ND		1.4	10
		6020A Metals (ICP/MS)-Di	issolved		
Method:	6020A	Analysis Batch: 280-25424		Instrument ID:	MT_024
Preparation:	3005A	Prep Batch: 280-24422		Lab File ID:	022AREF.D
Dilution:	2.0			Initial Weight/Volu	me: 50 mL
Date Analyzed:	08/03/2010 2223			Final Weight/Volu	me: 50 mL
Date Prepared:	07/28/2010 1100				
Analyte		Result (ug/L)	Qualifier	MDL	RL
Selenium		ND		1.4	10

Client: CH2M Hill, Inc.

Client Sample ID:	EFFLUENT				
Lab Sample ID:	280-5643-3				Date Sampled: 07/22/2010 0851
Client Matrix:	Water				Date Received: 07/23/2010 0945
		6020A Metals (ICP/MS)-Total	Recoverable		
Method:	6020A	Analysis Batch: 280-25232	I	nstrument ID:	MT_024
Preparation:	3005A	Prep Batch: 280-24388	L	ab File ID:	183SMPL.D
Dilution:	2.0		I	nitial Weight/Volun	ne: 50 mL
Date Analyzed:	08/03/2010 0230		F	inal Weight/Volum	ne: 50 mL
Date Prepared:	07/29/2010 1400				
Analyte		Result (ug/L)	Qualifier	MDL	RL
Selenium		ND		1.4	10
		6020A Metals (ICP/MS)-D	ssolved		
Method:	6020A	Analysis Batch: 280-25424	I	nstrument ID:	MT_024
Preparation:	3005A	Prep Batch: 280-24422	L	ab File ID:	027SMPL.D
Dilution:	2.0		I	nitial Weight/Volun	ne: 50 mL
Date Analyzed:	08/03/2010 2237		F	- inal Weight/Volum	ne: 50 mL
Date Prepared:	07/28/2010 1100				
Analyte		Result (ug/L)	Qualifier	MDL	RL
Selenium		ND		1.4	10

Client: CH2M Hill, Inc.

Client Sample ID:	GWR-3					
Lab Sample ID: Client Matrix:	280-5643-4 Water				Sampled: 07/22/2010 Received: 07/23/2010	
		6020A Metals (ICP/MS)-Total	Recoverable			
Method:	6020A	Analysis Batch: 280-26351	Instr	ument ID:	MT_024	
Preparation:	3005A	Prep Batch: 280-25914	Lab	File ID:	075AREF.D	
Dilution:	2.0		Initia	I Weight/Volume:	50 mL	
Date Analyzed:	08/10/2010 1933		Fina	Weight/Volume:	50 mL	
Date Prepared:	08/10/2010 0600					
Analyte		Result (ug/L)	Qualifier	MDL	RL	
Selenium		ND		1.4	10	

Client: CH2M Hill, Inc.

Client Sample ID:	INFLUENT				
Lab Sample ID: Client Matrix:	280-5643-5 Water				Date Sampled: 07/22/2010 1008 Date Received: 07/23/2010 0945
		6020A Metals (ICP/MS)-Total	Recoverable		
Method:	6020A	Analysis Batch: 280-26351		Instrument ID:	MT_024
Preparation:	3005A	Prep Batch: 280-25914		Lab File ID:	080SMPL.D
Dilution:	2.0			Initial Weight/Volu	ume: 50 mL
Date Analyzed:	08/10/2010 1947			Final Weight/Volu	ume: 50 mL
Date Prepared:	08/10/2010 0600				
Analyte		Result (ug/L)	Qualifier	MDL	RL
Selenium		ND		1.4	10

Client: CH2M Hill, Inc.

Client Sample ID:	EFFLUENT				
Lab Sample ID: Client Matrix:	280-5643-6 Water				Date Sampled: 07/22/2010 0851 Date Received: 07/23/2010 0945
		6020A Metals (ICP/MS)-Total	Recoverable		
Method:	6020A	Analysis Batch: 280-26351		Instrument ID:	MT_024
Preparation:	3005A	Prep Batch: 280-25914	Lab File ID:		081SMPL.D
Dilution:	2.0			Initial Weight/Vol	lume: 50 mL
Date Analyzed:	08/10/2010 1949			Final Weight/Volu	ume: 50 mL
Date Prepared:	08/10/2010 0600				
Analyte		Result (ug/L)	Qualifier	MDL	RL
Selenium		ND		1.4	10

# DATA REPORTING QUALIFIERS

Client: CH2M Hill, Inc.

# **QUALITY CONTROL RESULTS**

### Job Number: 280-5643-1

# **QC Association Summary**

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-24388					
LCS 280-24388/2-A	Lab Control Sample	R	Water	3005A	
MB 280-24388/1-A	Method Blank	R	Water	3005A	
280-5643-1	GWR-3	R	Water	3005A	
280-5643-2	INFLUENT	R	Water	3005A	
280-5643-2MS	Matrix Spike	R	Water	3005A	
280-5643-2MSD	Matrix Spike Duplicate	R	Water	3005A	
280-5643-3	EFFLUENT	R	Water	3005A	
Prep Batch: 280-24422					
_CS 280-24422/2-A	Lab Control Sample	R	Water	3005A	
MB 280-24422/1-A	Method Blank	R	Water	3005A	
280-5643-1	GWR-3	D	Water	3005A	
280-5643-2	INFLUENT	D	Water	3005A	
280-5643-2MS	Matrix Spike	D	Water	3005A	
280-5643-2MSD	Matrix Spike Duplicate	D	Water	3005A	
280-5643-3	EFFLUENT	D	Water	3005A	
Analysis Batch:280-25232	2				
_CS 280-24388/2-A	Lab Control Sample	R	Water	6020A	280-24388
VIB 280-24388/1-A	Method Blank	R	Water	6020A	280-24388
280-5643-1	GWR-3	R	Water	6020A	280-24388
280-5643-2	INFLUENT	R	Water	6020A	280-24388
280-5643-2MS	Matrix Spike	R	Water	6020A	280-24388
280-5643-2MSD	Matrix Spike Duplicate	R	Water	6020A	280-24388
280-5643-3	EFFLUENT	R	Water	6020A	280-24388
Analysis Batch:280-25424	4				
LCS 280-24422/2-A	Lab Control Sample	R	Water	6020A	280-24422
MB 280-24422/1-A	Method Blank	R	Water	6020A	280-24422
280-5643-1	GWR-3	D	Water	6020A	280-24422
280-5643-2	INFLUENT	D	Water	6020A	280-24422
280-5643-2MS	Matrix Spike	D	Water	6020A	280-24422
280-5643-2MSD	Matrix Spike Duplicate	D	Water	6020A	280-24422
280-5643-3	EFFLUENT	D	Water	6020A	280-24422
Prep Batch: 280-25914					
_CS 280-25914/2-A	Lab Control Sample	R	Water	3005A	
MB 280-25914/1-A	Method Blank	R	Water	3005A	
280-5643-4	GWR-3	R	Water	3005A	
280-5643-4MS	Matrix Spike	R	Water	3005A	
280-5643-4MSD	Matrix Spike Duplicate	R	Water	3005A	
280-5643-5	INFLUENT	R	Water	3005A	
280-5643-6	EFFLUENT	R	Water	3005A	

### Job Number: 280-5643-1

# **QC Association Summary**

		Report			
Lab Sample ID	Client Sample ID	Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-2635	51				
LCS 280-25914/2-A	Lab Control Sample	R	Water	6020A	280-25914
MB 280-25914/1-A	Method Blank	R	Water	6020A	280-25914
280-5643-4	GWR-3	R	Water	6020A	280-25914
280-5643-4MS	Matrix Spike	R	Water	6020A	280-25914
280-5643-4MSD	Matrix Spike Duplicate	R	Water	6020A	280-25914
280-5643-5	INFLUENT	R	Water	6020A	280-25914
280-5643-6	EFFLUENT	R	Water	6020A	280-25914

#### Report Basis

D = Dissolved R = Total Recoverable

Job Number: 280-5643-1

	Batch: 280-24388			Pre	thod: 6020A paration: 3005A al Recoverable	
Lab Sample ID:	MB 280-24388/1-A	Analysis Batch:	280-25232	Inst	rument ID: MT_024	
Client Matrix:	Water	Prep Batch: 28	0-24388	Lab	File ID: 175_BLK	(.D
Dilution:	1.0	Units: ug/L		Initi	al Weight/Volume:	50 mL
Date Analyzed:	08/03/2010 0207			Fina	al Weight/Volume:	50 mL
Date Prepared:	07/29/2010 1400					
Analyte		Resu	ult	Qual	MDL	RL
Selenium		ND			0.70	5.0
Lab Control Sa	mple - Batch: 280-24388			P	ethod: 6020A reparation: 3005A otal Recoverable	
Lab Sample ID:	LCS 280-24388/2-A	Analysis Batch:	280-25232	In	strument ID: MT_02	4
Client Matrix:	Water	Prep Batch: 28		La	ab File ID: 176_LC	
Dilution:	1.0	Units: ug/L		In	itial Weight/Volume:	50 mL
Date Analyzed:	08/03/2010 0210			Fi	nal Weight/Volume:	50 mL
Date Prepared:	07/29/2010 1400					
Analyte		Spike Amount	Result	% Rec.	Limit	Qual
Selenium		40.0	43.8	110	77 - 122	
				м	ethod: 6020A	
Matrix Spike/						
-	uplicate Recovery Report	- Batch: 280-24388			reparation: 3005A otal Recoverable	
Matrix Spike Du			280-25232	Т	otal Recoverable	4
Matrix Spike Du		Analysis Batch:		Te	strument ID: MT_02	
Matrix Spike Du MS Lab Sample II Client Matrix:	D: 280-5643-2			Te In La	strument ID: MT_02	
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution:	D: 280-5643-2 Water	Analysis Batch:		Tr In La In	otal Recoverable strument ID: MT_02 ab File ID: 181_M	S.D
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed:	D: 280-5643-2 Water 2.0	Analysis Batch:		Tr In La In	otal Recoverable strument ID: MT_02 ab File ID: 181_M itial Weight/Volume:	S.D 50 mL
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: 280-5643-2 Water 2.0 08/03/2010 0224 07/29/2010 1400	Analysis Batch: Prep Batch: 28	0-24388	To In La In Fi	otal Recoverable strument ID: MT_02 ab File ID: 181_M itial Weight/Volume: nal Weight/Volume:	S.D 50 mL 50 mL
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample	D: 280-5643-2 Water 2.0 08/03/2010 0224 07/29/2010 1400	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24388 280-25232	Tr In La In Fi	strument ID: MT_02 ab File ID: 181_M itial Weight/Volume: nal Weight/Volume: strument ID: MT_02	S.D 50 mL 50 mL 4
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix:	D: 280-5643-2 Water 2.0 08/03/2010 0224 07/29/2010 1400	Analysis Batch: Prep Batch: 28	0-24388 280-25232	Tr In La In Fi In La	strument ID: MT_02 ab File ID: 181_M: itial Weight/Volume: nal Weight/Volume: strument ID: MT_02 ab File ID: 182_M:	S.D 50 mL 50 mL 4
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix: Dilution:	D: 280-5643-2 Water 2.0 08/03/2010 0224 07/29/2010 1400	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24388 280-25232	Tr In La In Fi In La In	strument ID: MT_02 ab File ID: 181_M itial Weight/Volume: nal Weight/Volume: strument ID: MT_02	S.D 50 mL 50 mL 4 SD.D
Matrix Spike/ Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: 280-5643-2 Water 2.0 08/03/2010 0224 07/29/2010 1400 eID: 280-5643-2 Water 2.0	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24388 280-25232	Tr In La In Fi In La In	strument ID: MT_02 ab File ID: 181_M itial Weight/Volume: nal Weight/Volume: strument ID: MT_02 ab File ID: 182_M itial Weight/Volume:	S.D 50 mL 50 mL 4 SD.D 50 mL
Matrix Spike Du MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix: Dilution: Date Analyzed:	D: 280-5643-2 Water 2.0 08/03/2010 0224 07/29/2010 1400 eID: 280-5643-2 Water 2.0 08/03/2010 0227	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24388 280-25232	Tr In La In Fi In La In	strument ID: MT_02 ab File ID: 181_M itial Weight/Volume: nal Weight/Volume: strument ID: MT_02 ab File ID: 182_M itial Weight/Volume:	S.D 50 mL 50 mL 4 SD.D 50 mL

# **Quality Control Results**

Job Number: 280-5643-1

Client: CH2M Hill, Inc.

### Matrix Spike/

# Matrix Spike Duplicate Recovery Report - Batch: 280-24388

# Preparation: 3005A Total Recoverable

Method: 6020A

MS Lab Sample ID:	280-5643-2	Units: ug/L	MSD Lab Sample ID	280-5643-2
Client Matrix:	Water		Client Matrix:	Water
Dilution:	2.0		Dilution:	2.0
Date Analyzed:	08/03/2010 0224		Date Analyzed:	08/03/2010 0227
Date Prepared:	07/29/2010 1400		Date Prepared:	07/29/2010 1400

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Selenium	ND	40.0	40.0	43.0	44.3

Job Number: 280-5643-1

Method Blank	- Batch: 280-24422			Prep	od: 6020A aration: 3005A Recoverable	
Lab Sample ID:	MB 280-24422/1-A	Analysis Batch:	280-25424	Instru	ment ID: MT_024	
Client Matrix:	Water	Prep Batch: 28	0-24422	Lab F	ile ID: 019_BLK	.D
Dilution:	1.0	Units: ug/L		Initial	Weight/Volume: 5	50 mL
Date Analyzed:	08/03/2010 2215			Final	Weight/Volume: 5	50 mL
Date Prepared:	07/28/2010 1100					
Analyte		Resu	ult	Qual	MDL	RL
Selenium		ND			0.70	5.0
Lab Control Sa	imple - Batch: 280-24422			Pre	hod: 6020A paration: 3005A al Recoverable	
Lab Sample ID:	LCS 280-24422/2-A	Analysis Batch:	280-25424	Inst	rument ID: MT_024	4
Client Matrix:	Water	Prep Batch: 28		Lab	File ID: 020_LC	
Dilution:	1.0	Units: ug/L		Initia	al Weight/Volume:	50 mL
Date Analyzed: Date Prepared:	08/03/2010 2217 07/28/2010 1100			Fina	I Weight/Volume:	50 mL
Analyte		Spike Amount	Result	% Rec.	Limit	Qual
Selenium		40.0	44.8	112	77 - 122	
Matrix Spike/				Met	hod: 6020A	
-	uplicate Recovery Report	- Batch: 280-24422			paration: 3005A solved	
Matrix Spike D		- Batch: 280-24422 Analysis Batch:	280-25424	Dis	-	4
Matrix Spike D MS Lab Sample				Dis	solved	
-	ID: 280-5643-2	Analysis Batch:		<b>Dis</b> Inst Lab	rument ID: MT_024	
Matrix Spike D MS Lab Sample I Client Matrix: Dilution:	ID: 280-5643-2 Water	Analysis Batch:		Dis Inst Lab Initia	rument ID: MT_024 File ID: 025_M	S.D
Matrix Spike D MS Lab Sample I Client Matrix:	ID: 280-5643-2 Water 2.0	Analysis Batch:		Dis Inst Lab Initia	rument ID: MT_024 File ID: 025_M3 al Weight/Volume:	S.D 50 mL
Matrix Spike D MS Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: 280-5643-2 Water 2.0 08/03/2010 2231 07/28/2010 1100	Analysis Batch: Prep Batch: 28	0-24422	Dis Inst Lab Initia Fina	solved rument ID: MT_024 File ID: 025_M3 al Weight/Volume: al Weight/Volume:	S.D 50 mL 50 mL
Matrix Spike D MS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample	ID: 280-5643-2 Water 2.0 08/03/2010 2231 07/28/2010 1100	Analysis Batch:	0-24422 280-25424	Dis Inst Lab Initia Fina	solved rument ID: MT_024 File ID: 025_M3 al Weight/Volume: al Weight/Volume:	S.D 50 mL 50 mL 4
Matrix Spike D MS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix:	ID: 280-5643-2 Water 2.0 08/03/2010 2231 07/28/2010 1100	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24422 280-25424	Dis Inst Lab Initia Fina Inst Lab	rument ID: MT_024 File ID: 025_M3 al Weight/Volume: al Weight/Volume: rument ID: MT_024	S.D 50 mL 50 mL 4
Matrix Spike D MS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix: Dilution:	ID: 280-5643-2 Water 2.0 08/03/2010 2231 07/28/2010 1100 e ID: 280-5643-2 Water	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24422 280-25424	Dis Inst Lab Initia Fina Inst Lab Initia	rument ID: MT_024 File ID: 025_M3 al Weight/Volume: al Weight/Volume: al Weight/Volume: rument ID: MT_024 File ID: 026_M3	S.D 50 mL 50 mL 4 SD.D
Matrix Spike D MS Lab Sample I Client Matrix: Dilution: Date Analyzed:	ID: 280-5643-2 Water 2.0 08/03/2010 2231 07/28/2010 1100 e ID: 280-5643-2 Water 2.0	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24422 280-25424	Dis Inst Lab Initia Fina Inst Lab Initia	rument ID: MT_024 File ID: 025_M3 al Weight/Volume: al Weight/Volume: Il Weight/Volume: rument ID: MT_024 File ID: 026_M3 al Weight/Volume:	S.D 50 mL 50 mL 4 SD.D 50 mL
Matrix Spike D MS Lab Sample I Client Matrix: Dilution: Date Analyzed: Date Prepared: MSD Lab Sample Client Matrix: Dilution: Date Analyzed:	ID: 280-5643-2 Water 2.0 08/03/2010 2231 07/28/2010 1100 e ID: 280-5643-2 Water 2.0 08/03/2010 2234	Analysis Batch: Prep Batch: 28 Analysis Batch:	0-24422 280-25424	Dis Inst Lab Initia Fina Inst Lab Initia	rument ID: MT_024 File ID: 025_M3 al Weight/Volume: al Weight/Volume: Il Weight/Volume: rument ID: MT_024 File ID: 026_M3 al Weight/Volume:	S.D 50 mL 50 mL 4 SD.D 50 mL

# **Quality Control Results**

Job Number: 280-5643-1

Client: CH2M Hill, Inc.

### Matrix Spike/

# Matrix Spike Duplicate Recovery Report - Batch: 280-24422

### Method: 6020A Preparation: 3005A Dissolved

MS Lab Sample ID:	280-5643-2	Units: ug/L	MSD Lab Sample ID	): 280-5643-2
Client Matrix:	Water		Client Matrix:	Water
Dilution:	2.0		Dilution:	2.0
Date Analyzed:	08/03/2010 2231		Date Analyzed:	08/03/2010 2234
Date Prepared:	07/28/2010 1100		Date Prepared:	07/28/2010 1100

	Sample	MS Spike	MSD Spike	MS	MSD
Analyte	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Selenium	ND	40.0	40.0	42.1	44.8

Job Number: 280-5643-1

Method Blank -	Batch: 280-25914			Prepa	od: 6020A ration: 3005A Recoverable	
Client Matrix: Dilution: Date Analyzed:	MB 280-25914/1-A Water 1.0 08/10/2010 1927 08/10/2010 0600	Analysis Batch: Prep Batch: 28 Units: ug/L		Lab Fil Initial V	nent ID: MT_024 le ID: 073_BL Weight/Volume: Veight/Volume:	
Analyte		Res	ult	Qual	MDL	RL
Selenium		ND			0.70	5.0
Lab Control Sar	nple - Batch: 280-25914			Prep	nod: 6020A paration: 3005A I Recoverable	
Client Matrix: Dilution: Date Analyzed:	LCS 280-25914/2-A Water 1.0 08/10/2010 1930 08/10/2010 0600	Analysis Batch: Prep Batch: 28 Units: ug/L		Lab I Initia	ument ID: MT_02 File ID: 074_L I Weight/Volume: Weight/Volume:	
Analyte		Spike Amount	Result	% Rec.	Limit	Qual
Selenium		40.0	43.5	109	77 - 122	
Matrix Spike/ Matrix Spike Du	plicate Recovery Report -	- Batch: 280-25914		Prep	nod: 6020A paration: 3005A I Recoverable	
MS Lab Sample II Client Matrix: Dilution: Date Analyzed: Date Prepared:	D: 280-5643-4 Water 2.0 08/10/2010 1941 08/10/2010 0600	Analysis Batch: Prep Batch: 28		Lab I Initia	ument ID: MT_02 File ID: 078_N I Weight/Volume: Weight/Volume:	
MSD Lab Sample Client Matrix: Dilution: Date Analyzed: Date Prepared:	ID: 280-5643-4 Water 2.0 08/10/2010 1944 08/10/2010 0600	Analysis Batch: Prep Batch: 28		Lab I Initia	ument ID: MT_02 File ID: 079_N I Weight/Volume: Weight/Volume:	
Analyte		<u>% Rec.</u> MS MSD	Limit	RPD	RPD Limit MS	i Qual MSD Qual

Selenium

77 - 122 12

20

F

F

73

64

# **Quality Control Results**

Job Number: 280-5643-1

Client: CH2M Hill, Inc.

### Matrix Spike/

# Matrix Spike Duplicate Recovery Report - Batch: 280-25914

## Preparation: 3005A Total Recoverable

Method: 6020A

MS Lab Sample ID:	280-5643-4	Units: ug/L	MSD Lab Sample ID	D: 280-5643-4
Client Matrix:	Water		Client Matrix:	Water
Dilution:	2.0		Dilution:	2.0
Date Analyzed:	08/10/2010 1941		Date Analyzed:	08/10/2010 1944
Date Prepared:	08/10/2010 0600		Date Prepared:	08/10/2010 0600

	Sample	MS Spike	MSD Spike	MS		MSD	
Analyte	Result/Qual	Amount	Amount	Result/Q	Jal	Result/Qua	al
Selenium	ND	40.0	40.0	29.0	F	25.8	F

Job Number: 280-5643-1

# Client: CH2M Hill, Inc.

# Laboratory Chronicle

	280-5643-1	Client ID						
		Sample [	Date/Time:	07/22/2010 07:53	Received Date/	Time:	07/23/2010 09	):45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-1-A		280-25232	280-24388	07/29/2010 14:00	2	TAL DEN	CGG
A:6020A	280-5643-A-1-A		280-25232	280-24388	08/03/2010 02:13	2	TAL DEN	TEL
P:3005A	280-5643-A-1-B		280-25424	280-24422	07/28/2010 11:00	2	TAL DEN	CGG
A:6020A	280-5643-A-1-B		280-25424	280-24422	08/03/2010 22:20	2	TAL DEN	TEL
Lab ID:	280-5643-2	Client ID	: INFLUEM	NT				
		Sample [	Date/Time:	07/22/2010 10:08	Received Date/	Time:	07/23/2010 09	):45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-2-A		280-25232	280-24388	07/29/2010 14:00	2	TAL DEN	CGG
A:6020A	280-5643-A-2-A		280-25232	280-24388	08/03/2010 02:16	2	TAL DEN	TEL
P:3005A	280-5643-A-2-D		280-25424	280-24422	07/28/2010 11:00	2	TAL DEN	CGG
A:6020A	280-5643-A-2-D		280-25424	280-24422	08/03/2010 22:23	2	TAL DEN	TEL
Lab ID:	280-5643-2 MS	Client ID	: INFLUE	NT				
		Sample [	Date/Time:	07/22/2010 10:08	Received Date/	Time:	07/23/2010 09	):45
		_	Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-2-B MS		280-25232	280-24388	07/29/2010 14:00	2	TAL DEN	CGG
A:6020A	280-5643-A-2-B MS		280-25232	280-24388	08/03/2010 02:24	2	TAL DEN	TEL
P:3005A	280-5643-A-2-E MS		280-25424	280-24422	07/28/2010 11:00	2	TAL DEN	CGG
A:6020A	280-5643-A-2-E MS		280-25424	200 24422	08/03/2010 22:31			TEL
	200-30 <del>4</del> 3-A-2-L M3		200-20424	280-24422	00/03/2010 22:31	2	TAL DEN	
	280-5643-2 MSD	Client ID			00/03/2010 22:31	2	TAL DEN	122
					Received Date/		07/23/2010 09	
_ab ID:	280-5643-2 MSD	Sample [	: INFLUEN Date/Time: Analysis	NT 07/22/2010 10:08	Received Date/ Date Prepared /	Time:	07/23/2010 09	9:45
Lab ID: Method	280-5643-2 MSD Bottle ID		: INFLUEN Date/Time: Analysis Batch	NT 07/22/2010 10:08 Prep Batch	Received Date/ Date Prepared / Analyzed	Time: Dil	07/23/2010 09 Lab	):45 Analys
Lab ID: Method P:3005A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD	Sample [	: INFLUEN Date/Time: Analysis Batch 280-25232	NT 07/22/2010 10:08 Prep Batch 280-24388	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00	Time: Dil 2	07/23/2010 09 Lab TAL DEN	):45 <b>Analys</b> CGG
Lab ID: Method P:3005A A:6020A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD	Sample [	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232	NT 07/22/2010 10:08 Prep Batch 280-24388 280-24388	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27	Time: Dil 2 2	07/23/2010 09 <b>Lab</b> TAL DEN TAL DEN	):45 Analys CGG TEL
Lab ID: Method P:3005A A:6020A P:3005A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD 280-5643-A-2-F MSD	Sample [	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232 280-25424	NT 07/22/2010 10:08 Prep Batch 280-24388 280-24388 280-24422	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27 07/28/2010 11:00	Time: Dil 2 2 2 2	07/23/2010 09 Lab TAL DEN TAL DEN TAL DEN TAL DEN	2:45 Analys CGG TEL CGG
Lab ID: Method P:3005A A:6020A P:3005A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD	Sample [	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232	NT 07/22/2010 10:08 Prep Batch 280-24388 280-24388	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27	Time: Dil 2 2	07/23/2010 09 <b>Lab</b> TAL DEN TAL DEN	):45 Analys CGG TEL
<b>Method</b> P:3005A A:6020A P:3005A A:6020A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD 280-5643-A-2-F MSD	Sample [	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232 280-25424 280-25424	NT 07/22/2010 10:08 Prep Batch 280-24388 280-24388 280-24422 280-24422	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27 07/28/2010 11:00	Time: Dil 2 2 2 2	07/23/2010 09 Lab TAL DEN TAL DEN TAL DEN TAL DEN	2:45 Analys CGG TEL CGG
<b>Method</b> P:3005A A:6020A P:3005A A:6020A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD	Sample I Run Client ID	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232 280-25424 280-25424	NT 07/22/2010 10:08 Prep Batch 280-24388 280-24388 280-24422 280-24422	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27 07/28/2010 11:00	Time: <b>Dil</b> 2 2 2 2 2 2	07/23/2010 09 Lab TAL DEN TAL DEN TAL DEN TAL DEN	):45 CGG TEL CGG TEL TEL
Lab ID: Method 2:3005A 4:6020A 2:3005A 4:6020A 2:3005A 4:6020A 2:3005A 4:6020A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD	Sample I Run Client ID Sample I	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232 280-25424 280-25424 280-25424 : EFFLUE Date/Time: Analysis	VT 07/22/2010 10:08 Prep Batch 280-24388 280-24388 280-24422 280-24422 280-24422 NT 07/22/2010 08:51	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27 07/28/2010 11:00 08/03/2010 22:34 Received Date/ Date Prepared /	Time: Dil 2 2 2 2 2 2	07/23/2010 09 Lab TAL DEN TAL DEN TAL DEN TAL DEN TAL DEN 07/23/2010 09	):45 CGG TEL CGG TEL CGG TEL
Lab ID: Method P:3005A A:6020A P:3005A A:6020A Lab ID: Method	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD 280-5643-A	Sample I Run Client ID	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232 280-25424 280-25424 280-25424 : EFFLUE Date/Time: Analysis Batch	NT 07/22/2010 10:08 Prep Batch 280-24388 280-24422 280-24422 280-24422 NT 07/22/2010 08:51 Prep Batch	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27 07/28/2010 11:00 08/03/2010 22:34 Received Date/ Date Prepared / Analyzed	Time: 2 2 2 2 Time: Dil	07/23/2010 09 Lab TAL DEN TAL DEN TAL DEN TAL DEN 07/23/2010 09 Lab	0:45 CGG TEL CGG TEL 2:45 0:45
Lab ID: Method P:3005A A:6020A P:3005A A:6020A Lab ID: Method P:3005A A:6020A	280-5643-2 MSD Bottle ID 280-5643-A-2-C MSD 280-5643-A-2-C MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD 280-5643-A-2-F MSD	Sample I Run Client ID Sample I	: INFLUEN Date/Time: Analysis Batch 280-25232 280-25232 280-25424 280-25424 280-25424 : EFFLUE Date/Time: Analysis	VT 07/22/2010 10:08 Prep Batch 280-24388 280-24388 280-24422 280-24422 280-24422 NT 07/22/2010 08:51	Received Date/ Date Prepared / Analyzed 07/29/2010 14:00 08/03/2010 02:27 07/28/2010 11:00 08/03/2010 22:34 Received Date/ Date Prepared /	Time: Dil 2 2 2 2 2 2	07/23/2010 09 Lab TAL DEN TAL DEN TAL DEN TAL DEN TAL DEN 07/23/2010 09	2:45 CGG TEL CGG TEL CGG TEL

280-5643-A-3-B

280-5643-A-3-B

P:3005A

A:6020A

TAL DEN

TAL DEN

CGG

TEL

2

2

07/28/2010 11:00

08/03/2010 22:37

280-24422

280-24422

280-25424

280-25424

Job Number: 280-5643-1

# Client: CH2M Hill, Inc.

# Laboratory Chronicle

Lab ID:	280-5643-4	Client ID	GWR-3					
		Sample [	Date/Time:	07/22/2010 07:53	Received Date	Time:	07/23/2010 09	9:45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-4-A		280-26351	280-25914	08/10/2010 06:00	2	TAL DEN	KMN
A:6020A	280-5643-A-4-A		280-26351	280-25914	08/10/2010 19:33	2	TAL DEN	TEL
Lab ID:	280-5643-4 MS	Client ID	GWR-3					
		Sample [	Date/Time:	07/22/2010 07:53	Received Date	Time:	07/23/2010 09	9:45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-4-B MS		280-26351	280-25914	08/10/2010 06:00	2	TAL DEN	KMN
A:6020A	280-5643-A-4-B MS		280-26351	280-25914	08/10/2010 19:41	2	TAL DEN	TEL
Lab ID:	280-5643-4 MSD	Client ID	GWR-3					
		Sample [	Date/Time:	07/22/2010 07:53	Received Date	Time:	07/23/2010 09	9:45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-4-C MSD		280-26351	280-25914	08/10/2010 06:00	2	TAL DEN	KMN
A:6020A	280-5643-A-4-C MSD		280-26351	280-25914	08/10/2010 19:44	2	TAL DEN	TEL
Lab ID:	280-5643-5	Client ID	INFLUE	NT				
		Sample [	Date/Time:	07/22/2010 10:08	Received Date	Time:	07/23/2010 09	9:45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-5-A		280-26351	280-25914	08/10/2010 06:00	2	TAL DEN	KMN
A:6020A	280-5643-A-5-A		280-26351	280-25914	08/10/2010 19:47	2	TAL DEN	TEL
Lab ID:	280-5643-6	Client ID	EFFLUE	NT				
		Sample [	Date/Time:	07/22/2010 08:51	Received Date	Time:	07/23/2010 09	9:45
			Analysis		Date Prepared /			
Method	Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analys
P:3005A	280-5643-A-6-A		280-26351	280-25914	08/10/2010 06:00	2	TAL DEN	KMN
					08/10/2010 19:49	2		

# Laboratory Chronicle

Job Number: 280-5643-1

Lab ID:	МВ		Client ID	): N/A					
			Sample	Date/Time:	N/A	Received Date/	Time:	N/A	
				Analysis		Date Prepared /			
Method		Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A		MB 280-24388/1-A		280-25232	280-24388	07/29/2010 14:00	1	TAL DEN	CGG
A:6020A		MB 280-24388/1-A		280-25232	280-24388	08/03/2010 02:07	1	TAL DEN	TEL
P:3005A		MB 280-24422/1-A		280-25424	280-24422	07/28/2010 11:00	1	TAL DEN	CGG
A:6020A		MB 280-24422/1-A		280-25424	280-24422	08/03/2010 22:15	1	TAL DEN	TEL
P:3005A		MB 280-25914/1-A		280-26351	280-25914	08/10/2010 06:00	1	TAL DEN	KMN
A:6020A		MB 280-25914/1-A		280-26351	280-25914	08/10/2010 19:27	1	TAL DEN	TEL
Lab ID:	LCS		Client ID	): N/A					
			Sample	Date/Time:	N/A	Received Date/	Time:	N/A	
				Analysis		Date Prepared /			
Method		Bottle ID	Run	Batch	Prep Batch	Analyzed	Dil	Lab	Analyst
P:3005A		LCS 280-24388/2-A		280-25232	280-24388	07/29/2010 14:00	1	TAL DEN	CGG
A:6020A		LCS 280-24388/2-A		280-25232	280-24388	08/03/2010 02:10	1	TAL DEN	TEL
P:3005A		LCS 280-24422/2-A		280-25424	280-24422	07/28/2010 11:00	1	TAL DEN	CGG
		LCS 280-24422/2-A		280-25424	280-24422	08/03/2010 22:17	1	TAL DEN	TEL
A:6020A		LUS 280-24422/2-A		200-20+2+	LOO LITLL				
A:6020A P:3005A		LCS 280-24422/2-A LCS 280-25914/2-A		280-26351	280-25914	08/10/2010 06:00	1	TAL DEN	KMN

# Lab References:

TAL DEN = TestAmerica Denver

lifermation: er Morgan Town and CountryRd. ge CA 95112 der Morgan Norwalk port to: tk Wuttig 2MHLL 5 East Hillcrest Dr., Suite 125 usand Oaks, CA 91360 L INFORMATION STATUS CONDITION L L INFORMATION STATUS CONDITION L LITS NEEDED VIER THAN Standard LITS NEEDED VIER THAN Standard DATE DATE DATE		L				1680 F	ROGERS AV	FINUE CON	/23/// DUCT /	7/23/16 Z.R./ DNDUCT ANALYSIS	S TO DE	TECT	LAB	Test America		ر م
OHM OF CLISTOPY     CHARN OF CLISTOPY       OHM OF CLISTOPY     CLIENT       Kinder Morgan     CLIENT       STE     DFSP Norwalk       STE     DFSP Norwalk<	<b>BLAIN</b> TECH SERVIC				SAN JC	DSE, CALIF( F PHOI	ORNIA 9511 AX (408) 57 NE (408) 57:	2-1105 3-7771 3-0555					Billing Information: Kinder Morgan 1100 Town and Count	yRd.		5
CLENT     Kinder Morgan       CLENT     Kinder Morgan       OTESP Norwalk       ATT       DESP Norwalk       ATT       DESP Norwalk       Structure       Clear Morgan       OTESP Norwalk       Structure       MITRX       OTESP Norwalk       MITRX       OTESP Norwalk       MITRX       OFESP Norwalk       MITRX       MITRX       OFENTINE       OFENTIN       CEMPILE       OFENTING       OFENTING       OFENTING       OFENTIN	CHAIN OF CUSTOE	X											Orange CA 95112			
GIFE     DESP Norvalit       Intermediation       A DATE     DESP Norvalit       IS306 Norvalit       MATRIX       MATRIX       MATRIX       IS306 Norvalit       IS306 Norvalit <t< td=""><td>CLIENT</td><td></td><td></td><td>Kind</td><td>er Mo</td><td>rgan</td><td></td><td></td><td></td><td></td><td></td><td><u>_</u></td><td>Kinder Morgan Norwa</td><td>ł</td><td></td><td></td></t<>	CLIENT			Kind	er Mo	rgan						<u>_</u>	Kinder Morgan Norwa	ł		
15306 Norwalk Bivd, Norwalk       15306 Norwalk Bivd, Norwalk       Instruction     Instruction       Mile	SITE			DFS	P No	rwalk				աn 		<u> </u>	Mark Wuttig			
Marter LID.         MATEX         CONTINUERS         Emission of the second of			1530	16 Norv	valk B	lvd, Nor	walk						325 East Hillcrest Dr.	, Suite 125		
Source I.D.     Date     There     Q = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 =				MATRIX		CONTAINE	ERS						I I nousand Oaks, CA	J1360		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		ATE	TIME	AQ= Water		<sup>1</sup> reservation							ADD'L INFORMATION	STATUS	CONDITION	I AR SAMPI E #
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						-INO3	250mL Poly	YES		×						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	GWR-3		5220	Aq		4NO3	250mL Poly	ON	×							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	ge 2		<b>\</b>		1	۰ di	250mL Poly	ON	<u>×</u>							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	8-of-			<b>]</b>		-INO3	250mL Poly	YES		×	<u>.</u>					e.
$ T = \begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1$	INFLUENT		-	AQ	1 1 1		250mL Poly	ON	<u>×</u>						<u></u>	
T 07/22/10 $0$ % S/ AQ 1 HNO3 Poly VES X 1 HNO3 Poly VES X 1 HNO3 250mL NO X 1 HNO3 250mL NO X 1 HNO3 Poly NO X 1 HNO3 250mL NO X 1 HNO X					1		250mL Poly	ON N	×							
T     07/22/10     0.85/1     AQ     1     HNO3     250mL     NO     X     N     N       PATE     1     Poly     NO     X     N     N     X     N     N       PATE     1     NP     250mL     NO     X     N     N     N       PATE     1     NP     250mL     NO     X     N     N       PATE     1     NP     250mL     NO     X     N     N       PATE     1     NP     250mL     NO     X     N     N       PATE     1     NO     A     NO     A     N     N       PATE     1     NO     A     NO     A     N     N       PATE     1     NO     A     NO     A     N     N       PATE     1     NO     A     N     N     N     N       PATE     1     NO     NO     N     N					1	1NO3	250mL Poly	YES		×						
Date     Time     250mL     NO     X     In       Date     Time     SampLing     RESULTS NEEDED     NO LATER THAN     Standard       V1JJ/ro     1024     PerFORMED BY     Cocle     SLachsouseL     NO LATER THAN     Standard       Present     1020     Feel EX     NO LATER THAN     Standard     7/23/10       Present     Time     RECEIVED BY     7/23/10     7/23/10       Present     Time     RECEIVED BY     237/20       Present     Time     RECEIVED BY     7/23/10       Present     Time     RECEIVED BY     237/20       Present     Time     RECEIVED BY     237/20			1280	AQ	<b>1</b>	INO3	250mL Poly	ON	×							
Date     Time     Sampling       7/22/10     1024     PERFORMED BY     Code     SLadhed Code       202     1024     PERFORMED BY     Code     Code       202     1024     Feal     Example     7/33/10       202     1024     Feal     Example     7/33/10       203     1024     Feal     Example     7/33/10       1024     1024     Feal     223/10       11ME     RECEIVED BY     Date       11ME     RECEIVED BY     Date       11ME     RECEIVED BY     Date			<u> </u>		<u></u>	-	250mL Poly	ON	×							
Production     Time     Received BY     Date       10 Co     Feal Ex     7/32/10       11 Inte     Received BY     223 cu       11 Inte     Received BY     Date       11 Inte     Received BY     Date		10		SAMPLING ERFORM	ED BY	Cods	ar l	771.00	、			   		Standard		
Time     Received by     Date       Time     Received by     Date       Time     Received by     Date       Time sent     cooler #     Date		N						<u> </u>	NIL .		RE	CEIVED			DATE	TIME
TIME RECEIVED BY COLER #	RELEASED BY								, MITI	0 0		CEINER	LX		01/cc//	/200 TIME
TIME     RECEIVED BY     DATE       TIME SENT     COOLER #									-				A N		07,52	D805
TIME SENT	RELEASED BY								TIM	ш	RE	CEIVED			DATE	TIME
	SHIPPED VIA							_	TIM	IE SENT		)OLER#				
							-				-					

1.8 25 7/23/10 In

#### Login Number: 5643 Creator: Harrington, Nicholas List Number: 1

2101	itumber.	

Question	T / F/ NA Comment
Radioactivity either was not measured or, if measured, is at or below background	True
The cooler's custody seal, if present, is intact.	True
The cooler or samples do not appear to have been compromised or tampered with.	True
Samples were received on ice.	True
Cooler Temperature is acceptable.	True
Cooler Temperature is recorded.	True
COC is present.	True
COC is filled out in ink and legible.	True
COC is filled out with all pertinent information.	True
Is the Field Sampler's name present on COC?	True
There are no discrepancies between the sample IDs on the containers and the COC.	True
Samples are received within Holding Time.	True
Sample containers have legible labels.	True
Containers are not broken or leaking.	True
Sample collection date/times are provided.	True
Appropriate sample containers are used.	True
Sample bottles are completely filled.	True
Sample Preservation Verified	True
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A
If necessary, staff have been informed of any short hold time or quick TAT needs	True
Multiphasic samples are not present.	True
Samples do not require splitting or compositing.	True

Job Number: 280-5643-1

List Source: TestAmerica Denver