Report

First Quarter 2015 Remediation Progress Report SFPP Norwalk Pump Station Norwalk, California

Prepared for

Kinder Morgan Energy Partners, L.P.

1100 Town and Country Road

Orange, California 92868

April 15, 2015

CH2MHILL®

6 Hutton Centre Drive

Suite 700

Santa Ana, California 92707

EN0413151059SCO

Signature Page

The material and data presented in this report were prepared consistent with current and generally accepted consulting principles and practices. This work was supervised by the following CH2M HILL licensed professional.

April 15, 2015

William Breedlove
CH2M HILL
California Professional Chemical Engineer, No. 5142

Date

Contents

Acronyms and Abbreviations

µg/L	micrograms per liter
1,2-DCA	1,2-dichloroethane
Air Tech	Air Technology Laboratories
ASTM	ASTM International (formerly American Society for Testing and Materials)
ATL	Advanced Technology Laboratories
EPA	U.S. Environmental Protection Agency
FBBR	fluidized bed bioreactor
GWE	groundwater extraction
GWTS	groundwater treatment system
KMEP	Kinder Morgan Energy Partners, L.P.
LGAC	liquid-phase granular activated carbon
MTBE	methyl tertiary butyl ether
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
OWS	oil-water separator
PID	photoionization detector
ppmv	parts per million by volume
RBCA	Risk-Based Corrective Action
RWQCB	California Regional Water Quality Control Board, Los Angeles Region
SCAQMD	South Coast Air Quality Management District
SFPP	, L.P.
SVE	soil vapor extraction
TBA	tertiary butyl alcohol
TFE	total fluids extraction
TPH-d	total petroleum hydrocarbons quantified as diesel
TPH-g	total petroleum hydrocarbons quantified as gasoline
TPH-o	total petroleum hydrocarbons quantified as oil
TPH-total	total petroleum hydrocarbons quantified as gasoline, diesel, and oil
VGAC	vapor-phase granular activated carbon
VOC	volatile organic compound
WSB	West Side Barrier

SECTION 1

Introduction

CH2M HILL has prepared this report on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), to summarize remediation activities performed at the former SFPP Norwalk Pump Station, located within the Defense Fuel Support Point, at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1) during the first quarter 2015 reporting period.

This progress report is submitted pursuant to a request from the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) in its letter dated October 25, 2006 (RWQCB, 2006). Additional site background information can be found in the *Conceptual Site Model and Proposed Alternate Interim Remedy for Soil, Groundwater, and LNAPL* (CH2M HILL, 2013a), and in previously submitted semiannual groundwater monitoring reports.

This report summarizes the remediation systems present at the site and describes remediation activities for the period of January through March 2015 with documentation of the following tasks:

- Operations and maintenance (O&M) of remediation systems performed by SFPP field personnel
- Remediation system evaluation

The remediation activities performed during January through March 2015 and the progress achieved through those activities are summarized in the following sections.

SECTION 2

Remediation Systems

SFPP currently operates remediation systems consisting of soil vapor extraction (SVE), total fluids extraction (TFE) of free product and/or groundwater using a top-loading pump, and treatment of extracted soil vapors and groundwater to address two specific areas at and near the site: the south-central area and the southeastern area. Operation of the West Side Barrier (WSB) groundwater extraction (GWE) system (WSB system) for remediation of the western offsite area was discontinued in August 2008.

Remediation in the south-central and southeastern areas consists of SVE and TFE. At several well locations, SVE is coupled with TFE in a process referred to as dual-phase extraction. SVE is performed using a blower to remove soil vapors from the south-central and southeastern areas. The extracted vapors are conveyed to a knock-out tank that separates entrained moisture from the soil vapors. Accumulated moisture in the knock-out tank is treated by the main groundwater treatment system (GWTS) described below. The soil vapors are then treated in a thermal oxidizer where volatile organic compounds (VOCs) are converted to carbon dioxide and water prior to being discharged to the atmosphere. Operation of the GWTS and SVE is conducted in accordance with Permits to Construct (Application Nos. 569588 and 567723, respectively; ID 110835) issued by the South Coast Air Quality Management District (SCAQMD).

The main GWTS handles free product and groundwater recovered from the south-central and southeastern parts of the site. Free product and groundwater recovered by pneumatically operated top-loading total fluids pumps are piped to an oil-water separator (OWS). Free product, if any, from the OWS is collected in a storage tank and recycled at an offsite location. Water from the OWS is treated using liquid-phase granular activated carbon (LGAC). Treated water is routed through an onsite 3,000-gallon equalization tank. Two fluidized bed bioreactors (FBBRs) installed downstream of the equalization tank treat fuel oxygenates such as tertiary butyl alcohol (TBA) and methyl tertiary butyl ether (MTBE) that are not treated in the LGAC. The treated groundwater then passes through polishing LGAC units prior to discharge in accordance with a National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0063509, CI No. 7497).

A summary of remediation wells in the south-central, southeastern, and WSB areas is presented in Table 1. Table 1 includes well identifications, well construction details, well use, and operational status at the end of the first quarter 2015. The remediation system layout is presented in Figure 2.

SECTION 3

Operations and Maintenance

During the first quarter 2015 reporting period, O&M of the remediation systems included the following tasks:

- Performed weekly maintenance and monitoring of the south-central and southeastern SVE and TFE wells, and the SVE and groundwater treatment systems (collectively referred to as remediation systems).
- Removed, inspected, and made repairs to the TFE pumps and associated discharge lines.
- Performed cleanout of the OWS, sump, equalization tank, and transfer tank.
- Performed carbon changeout of LGAC vessels.
- Replaced the broken OWS transfer pump with a new transfer pump.
- Installed vapor-phase granular activated carbon (VGAC) treatment system to treat off-gas from the product tank and OWS.
- Installed a new Sensaphone 800 alarm system to add more specific alarm callouts to the TFE treatment system.
- Installed a new, calibrated process air thermocouple on the SVE system.

Overall, during the first quarter 2015, the GWTS operated approximately 87 percent of the time; the SVE system was operational only 3 percent (last 5 days of March) of the reporting period due to SCAQMD permitting constraints.

The remediation systems operated during the first quarter 2015 with the following exceptions:

- The SVE system was turned off on July 1, 2014, due to a leaky heat exchanger. The SVE system was repaired in December 2014 and restarted on March 27, 2015, after the new SCAQMD permit was issued.
- The GWTS was turned off on February 3, 2015, to clean out the OWS, OWS transfer tank, sump, and equalization tank. The system was restarted on the same day.
- The GWTS was off on arrival on March 3, 2015, due to a high product tank alarm. The system was restarted on the same day.
- The GWTS was off between March 14 and March 19, 2015, due to a broken OWS transfer pump. The pump was replaced and the system was restarted on March 19, 2015.
- The GWTS was off between March 20 and March 23, 2015, due to a faulty level switch on the OWS transfer tank. Repair of the level switch was made and the system was restarted on March 23, 2015.
- The GWTS was off between March 24 and March 25, 2015, due to a high level tank alarm. The system was restarted on March 25, 2015.
- The GWTS was off on March 26, 2015, for troubleshooting of the level switch in the OWS transfer tank. The system was restarted later that same day.
- The GWTS was off on March 30 and March 31, 2015, due to a high product tank alarm. A mixture of water and product from the OWS drained to the product tank and VGAC drums due to a loose fitting. The product tank was emptied and the VGAC drums were replaced, and the system was restarted on March 31, 2015.

The SVE system was brought online on March 27, 2015, after the new SCAQMD permit to construct was issued. The SVE had been offline since the third quarter 2014 because a leak was detected in the heat exchanger, causing reduced treatment efficiency. During the downtime, SFPP modified the previous SCAQMD permit (No. F13759 for the SVE system) to include the horizontal biosparge system that is planned to be operational by the second or third quarter 2015. The heat exchanger was bypassed to eliminate the leakage in December 2014. Table 2 presents the SVE system operations summary. Extracted vapor photoionization detector (PID) and analytical results for the first quarter 2015 are summarized in Tables 3 and 4, respectively.

During this reporting period, remediation system inspections were performed on a weekly basis. For these inspections, volumes of extracted groundwater, hours of operation, and other system parameters were recorded during system operation. The groundwater remediation system operation activities for the first quarter 2015 are summarized in Table 5. The extracted groundwater analytical results for the first quarter 2015 are summarized in Table 6. Historical (post-2007) gauging results of select TFE and SVE wells are provided in Table 7. Pre-2007 data can be found in previous semiannual groundwater monitoring reports.

Vapor samples from the SVE system influent and water samples from the GWTS influent were collected during the first quarter 2015 when the systems were in operation. During the first quarter 2015, influent vapor samples were collected on March 31, 2015. Influent water samples were collected on January 15, February 20, and March 3, 2015, when the GWTS was operating. The water samples were delivered to Advanced Technology Laboratories (ATL) of Las Vegas, Nevada, for analysis. ATL is certified by the California Department of Public Health Environmental Laboratory Accreditation Program. The vapor samples were delivered to Air Technology Laboratories (Air Tech) of City of Industry, California, for analysis.

Air Tech analyzed the vapor samples for the following:

- Fixed gases (methane, carbon dioxide, oxygen, and argon) using ASTM International (ASTM) D1946
- Total petroleum hydrocarbons quantified as gasoline (TPH-g) using U.S. Environmental Protection Agency (EPA) Method TO-3
- Total gaseous non-methane organic carbon using SCAQMD Method 25.1
- VOCs using EPA Method TO-15

ATL analyzed the water samples for the following:

- TPH-g, TPH quantified as diesel (TPH-d), and TPH quantified as oil (TPH-o) (collectively referred to as TPH-total) using EPA Method 8015(M)
- VOCs using EPA Method 8260B

The effluent water sampling results were in compliance with the NPDES permit for the first quarter 2015 and will be provided under separate cover in the NPDES effluent monitoring report.

SECTION 4

Summary of Remediation Progress

Based on weekly monitoring of the influent vapor concentration, vapor extraction flow rate, and hours of operation, the total mass of VOCs removed by SVE was 4,299 pounds during the first quarter 2015, for a cumulative mass removal of 3,202,055 pounds since SVE implementation in September 1995 (Table 2). The cumulative mass removed by SVE does not include the mass removed by naturally occurring in situ biodegradation.

A total of 936,119 gallons of groundwater was extracted during the first quarter 2015 (Table 5). No water was extracted from the WSB area during the first quarter 2015. Approximately 92.3 million gallons of groundwater has been extracted from the south-central, southeastern, and WSB areas since GWTS operations first began in 1996.

Groundwater extraction was discontinued in the WSB region during the third quarter 2008 based on the reduced lateral extent and low concentrations of MTBE and 1,2-dichloroethane (1,2-DCA) west of the site. Detected concentrations of MTBE and 1,2-DCA in wells west of the site have been below the site-specific Risk-Based Corrective Action (RBCA) goals (Geomatrix Consultants, Inc., 1999) since August 2005. The lower (more conservative) RBCA goals for MTBE and 1,2-DCA are 40 micrograms per liter (µg/L) and 70 µg/L, respectively. 1,2-DCA, MTBE, and TBA concentrations in the western area continue to be monitored; other wells in the WSB system will be restarted if necessary.

The amount of free product that accumulated in the product holding tank of the GWTS was estimated to be 66 gallons during the first quarter 2015. Since 1995, a total of 11,320 gallons of product has been removed by TFE, vacuum truck, or manual bailing operations. Beginning in March 2015, some online TFE wells were gauged and pump inlets were reset to maximize product removal. These activities will continue into the second quarter 2015 until all pumps are reset.

The estimated mass removal (pounds) of hydrocarbons by the GWTS is shown in Table 5. Mass removal estimates between 1996 and 2005 are based on benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE concentrations in the groundwater influent (TPH data were not available) and total volume of extracted groundwater; mass removal estimates between 2006 and 2011 are based on groundwater influent TPH-g and TPH quantified as fuel product (TPH-fp) concentrations, and total volume of extracted groundwater; mass removal estimates between 2012 and 2015 are based on groundwater influent TPH-total (TPH-g, TPH-d, and TPH-o) concentrations and total volume of extracted groundwater. Since groundwater extraction first began in 1996, hydrocarbon mass removed by the GWTS is estimated to be 8,941 pounds. During the first quarter 2015, the mass removal of hydrocarbons was estimated to be 1,321 pounds, which is a significant increase since previous quarters. The increase in mass removal is attributed to the higher TPH-total concentrations in the groundwater influent; TPH-total concentrations ranged between 13,870 and 560,000 µg/L during the first quarter 2015 (Table 6). The higher concentrations of TPH-total are attributed to the free product that is emulsified in the groundwater influent during TFE operations. As discussed in Section 5, the measurable free product thickness in some TFE wells has increased recently due to continued declining water levels across the site due to drought conditions.

SECTION 5

System Evaluation and Optimization

For the SVE treatment system, during the first quarter 2015, vapor-phase VOC concentrations were measured in individual wells using a PID (calibrated as 100 parts per million by volume [ppmv] hexane) on March 31, 2015, as shown in Table 3. The operational status of the SVE wells at the end of the first quarter 2015 is shown in Table 1. PID readings recorded on March 31, 2015, indicated VOC concentrations were close to, or higher than, 100 ppmv in the majority of the SVE wells; therefore, the SVE system will be operated until influent VOC concentrations reach low asymptotic levels.

The second semiannual 2014 groundwater monitoring event in the WSB region occurred during the fourth quarter 2014. Monitoring results support the continued shutdown of GWE in the WSB region. 1,2-DCA, MTBE, and TBA concentrations in the western area will continue to be monitored. The WSB system will be restarted if necessary. The first semiannual 2015 groundwater monitoring event is scheduled for April 2015.

As shown in Table 7, measurable free product was observed in 28 remediation wells during the previous semiannual groundwater monitoring event (fourth quarter 2014). The product thicknesses for these wells ranged from 0.01 foot in MW-SF-16 to 5.81 feet in GMW-O-12. It is believed that increased product thicknesses observed during the fourth quarter 2014 are indicative of continued declining water levels across the site (Figure 3). The current low water levels have allowed residual product to drain from pore spaces within the smear zone and collect in certain wells, or increase in thickness in wells with measureable product already present. The water table elevation is related to annual rainfall and the cumulative rainfall over time. As shown in Figure 3, since the 2005/2006 El Niño, groundwater elevations in the uppermost aquifer have declined approximately 5 feet to the current low water levels across the site. Continued TFE extraction will remove the product that has accumulated due to these low water levels.

The TFE system currently consists of 11 wells operated for product recovery and hydraulic control in the south-central part of the site, and 3 wells equipped with TFE pumps operated for product recovery and hydraulic control in the southeastern part of the site (Table 1). TFE operations from these wells will continue and pump inlets will be adjusted, as needed, to optimize product recovery.

SECTION 6

Planned Second Quarter 2015 Activities

During the second quarter 2015, SFPP plans to continue to focus remedial efforts on the south-central and southeastern areas. The following maintenance activities are planned for the second quarter 2015:

- Measure individual well vapor concentrations.
- Continue weekly maintenance and monitoring of the south-central and southeastern SVE and groundwater treatment systems.
- Remove, inspect, and repair GWTS pumps and associated discharge lines.
- Collect and analyze system influent vapor and groundwater samples.
- Replace OWS and retrofit piping to accommodate new equipment.
- Install biosparge ancillary equipment and new Southern California Edison (SCE) power drop in the south-central area. Pilot testing activities are planned to commence, as outlined in the *Horizontal Biosparge System Construction and Pilot Test Work Plan* submitted to the RWQCB on November 18, 2013 (CH2M HILL, 2013b), in the second or third quarter 2015.

The TFE and SVE systems for the south-central and southeastern areas will continue to operate. Operation of the TFE system in the southeastern area will be monitored closely, and adjustments will be made to optimize fluid recovery. System inspections will continue on a weekly basis; system evaluation parameters will be collected as needed. The remediation activities and progress for the second quarter 2015 will be described in the Second Quarter 2015 Remediation Progress Report, to be submitted by July 15, 2015.

Field activities are currently underway to install the horizontal biosparge system as described in the pilot test work plan (CH2M HILL, 2013b) and the response to RWQCB comments on the work plan (CH2M HILL, 2014). The RWQCB approved the pilot test work plan in a letter dated February 26, 2014 (RWQCB, 2014). The purpose of the biosparge system is to enhance mass removal of free-phase and dissolved-phase hydrocarbon constituents beneath the south-central area of the site. Pilot testing of the system is planned to be conducted for a period of approximately 1 year in order to evaluate the feasibility of system expansion. The horizontal biosparge well was installed in August 2014; the aboveground portion of the system (air compressor, piping, and electrical) is planned to be installed by the second quarter 2015. Monthly progress reports on the pilot testing activities will be submitted to RWQCB once testing begins and until completion of the pilot test, as requested in RWQCB's letter (RWQCB, 2014).

SECTION 7

References

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

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CH2M HILL. 2014. *Response to Comments – Horizontal Biosparge System Construction and Pilot Test Work Plan, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California*. November 18.

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Tables

TABLE 1

Remediation Well Construction and Status

SFPP Norwalk Pump Station, Norwalk, California

Remediation Area	Remediation Well ID	Installation Date	Top of Well Casing Elevation (feet msl)	Well Screen Interval (feet bgs)	Remediation Well Function	Well Operation Status at End of First Quarter 2015	
						SVE	TFE/GWE
South-Central	MW-SF-1	6/18/1990	78.93	25 - 40	SVE	**ON**	--
	MW-SF-2	6/18/1990	78.53	25 - 40	SVE; TFE	**ON**	**ON**
	MW-SF-3	6/18/1990	78.12	25 - 40	SVE; TFE	**ON**	OFF
	MW-SF-4	6/19/1990	79.38	25 - 40	SVE	**ON**	--
	MW-SF-5	9/19/1990	79.74	23 - 38	SVE	**ON**	--
	MW-SF-6	9/19/1990	76.80	25 - 40	SVE; TFE	**ON**	OFF
	MW-SF-9	6/15/1995	74.10	--	SVE	**ON**	--
	MW-SF-10	9/23/2003	76.53	10 - 30	SVE	**ON**	--
	MW-SF-11	6/19/2007	78.56	20 - 40	SVE; TFE	**ON**	**ON**
	MW-SF-12	6/18/2007	78.07	20 - 40	SVE; TFE	**ON**	**ON**
	MW-SF-13	6/19/2007	73.40	20 - 40	SVE; TFE	**ON**	OFF
	MW-SF-14	6/21/2007	78.16	20 - 40	SVE; TFE	**ON**	**ON**
	MW-SF-15	6/21/2007	78.27	20 - 40	SVE; TFE	**ON**	OFF
	MW-SF-16	6/20/2007	78.21	20 - 40	SVE; TFE	**ON**	**ON**
	GMW-9	7/8/1991	77.16	20 - 50	SVE; TFE	**ON**	**ON**
	GMW-10	7/8/1991	N/A	25 - 50	SVE; TFE	**ON**	OFF
	GMW-22	8/2/1991	77.24	25 - 60	SVE; TFE	**ON**	OFF
	GMW-24	8/5/1991	77.48	25 - 60	SVE; TFE	**ON**	**ON**
	GMW-25	1/10/1992	78.14	20 - 50	SVE; TFE	**ON**	OFF
	GWR-3	1/10/1992	77.60	20 - 50	SVE; TFE	**ON**	OFF
	VEW-1	09/19/90	--	5 - 25	SVE	**ON**	--
	VEW-2	09/19/90	--	5 - 25	SVE	**ON**	--
	MW-O-1	1/22/1991	75.48	25 - 40	SVE; TFE	**ON**	OFF
	MW-O-2	1/23/1991	71.90	25 - 40	SVE; TFE	**ON**	OFF
	GMW-O-11	5/20/1992	74.17	20 - 50	SVE; TFE	**ON**	**ON**
	GMW-O-12	5/21/1992	73.49	20 - 50	SVE	**ON**	--
	GMW-O-20	6/15/1995	73.32	--	SVE; TFE	**ON**	**ON**
	GMW-O-21	10/1/1997	71.43	26 - 46	TFE	--	**ON**
	GMW-O-23	6/25/2007	73.63	20 - 40	SVE; TFE	**ON**	**ON**
	MW-18 (MID)	6/10/1991	75.67	50 - 60	SVE	**ON**	--
	HW-1	09/06/92	--	--	SVE	--	--
	HW-2	09/06/92	--	--	SVE	**ON**	--
Southeastern	GMW-O-15	4/19/1994	74.23	20 - 50	SVE; TFE	**ON**	**ON**
	GMW-O-18	7/25/1994	74.36	21 - 40	SVE; TFE	**ON**	**ON**
	GMW-36	4/11/1994	76.66	20 - 50	SVE; TFE	**ON**	**ON**
	GMW-SF-9	4/1/2003	73.05	37 - 46	TFE	--	OFF
	GMW-SF-10	4/2/2003	75.77	37 - 46	TFE	--	OFF
West Side Barrier	BW-2	5/20/1996	73.57	27 - 47	GWE	NA	OFF
	BW-3	5/17/1996	74.16	31 - 50	GWE	NA	OFF
	BW-4	5/20/1996	74.61	28 - 47	GWE	NA	OFF
	BW-5	5/23/1996	73.59	27 - 46	GWE	NA	OFF
	BW-6	5/22/1996	73.48	28 - 47	GWE	NA	OFF
	BW-7	5/22/1996	74.65	27 - 46	GWE	NA	OFF
	BW-8	5/21/1996	75.08	27 - 46	GWE	NA	OFF
	BW-9	5/21/1996	76.19	27 - 46	GWE	NA	OFF

Abbreviations

NA = not applicable

-- = information not available

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

feet bgs = feet below ground surface

GWE = groundwater extraction

SVE = soil vapor extraction

TFE = total fluids extraction

TABLE 2
Vapor Remediation System Operation Summary
SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum (inches H_2O)	Mass Removed (pounds)[1]
1995 Totals	1,240		--	--	--	281,065
1996 Totals	7,208	5,968	--	--	--	516,717
1997 Totals	12,865	5,657	--	--	--	489,526
1998 Totals	17,877	5,012	--	--	--	223,055
1999 Totals	23,600	5,723	--	--	--	390,836
2000 Totals	29,690	6,090	--	--	--	359,092
2001 Totals	33,671	3,981	--	--	--	224,091
2002 Totals	36,358	2,687	--	--	--	79,363
2003 Totals	39,676	3,319	--	--	--	64,671
2004 Totals	44,193	4,517	--	--	--	120,240
2005 Totals	49,750	5,557	--	--	--	212,175
2006 Totals	52,735	2,985	--	--	--	17,263
2007 Totals[3]	58,319	2,058	--	--	--	7,378
2008 Totals	64,233	5,915	--	--	--	5,878
2009 Totals	68,858	4,625	--	--	--	9,387
2010 Totals	72,369	3,511	--	--	--	1,507
2011 Totals	77,489	5,120	--	--	--	14,629
2012 Totals	84,173	6,684	--	--	--	22,260
2013 Totals	90,414	6,241	--	--	--	90,880
2014 Totals	94,083	3,688	--	--	--	67,744
3/27/15	94,119	36	1,890	1,803	40	2,912
3/30/15	94,123	4	--	1,800	38	97
3/31/15	94,144	22	2,464	1,861	40	1,290
First Quarter 2015 Totals	94,144	--	--	--	--	4,299
Cumulative Totals	**94,144**	--	--	--	--	**3,202,055**

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

Abbreviations
TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)
ppmv = parts per million by volume
PID = photoionization detector
FID = flame ionization detector
scfm = standard cubic feet per minute
inches H_2O = inches of water
-- = not applicable or not available

TABLE 3
Remediation Well Vapor Concentrations
SFPP Norwalk Pump Station, Norwalk, California

Remediation Area	Remediation Well ID	Remediation Well Function	3/31/2015 (ppmv as Hexane)[1]
South-Central	MW-SF-1	SVE	1,062
	MW-SF-2	SVE; TFE	104
	MW-SF-3	SVE; TFE	1,448
	MW-SF-4	SVE	410
	MW-SF-5	SVE	96
	MW-SF-6	SVE; TFE	2,640
	MW-SF-9	SVE	532
	MW-SF-10	SVE	134
	MW-SF-11	SVE; TFE	210
	MW-SF-12	SVE; TFE	3,254
	MW-SF-13	SVE; TFE	634
	MW-SF-14	SVE; TFE	876
	MW-SF-15	SVE; TFE	1,124
	MW-SF-16	SVE; TFE	314
	GMW-9	SVE; TFE	1,940
	GMW-10	SVE	1,344
	GMW-22	SVE; TFE	1,940
	GMW-24	SVE; TFE	630
	GMW-25	SVE; GWE	630
	GWR-3	SVE; GWE	3,670
	VEW-1	SVE	Water in Line
	VEW-2	SVE	574
	MW-O-1	SVE; TFE	Water in Line
	MW-O-2	SVE; TFE	1,314
	GMW-O-11	SVE; TFE	2,800
	GMW-O-12	SVE	>5,000
	GMW-O-20	SVE; TFE	>5,000
	GMW-O-23	SVE; TFE	>5,000
	MW-18 (MID)	SVE	650
	HW-1	SVE	1,330
	HW-2	SVE	>5,000
Southeastern	GMW-36	SVE; TFE	1,310
	GMW-O-15	SVE; TFE	1,310
	GMW-O-18	SVE; TFE	1,310

Notes
1. Vapor readings measured in the field with an Eagle 2 photoionization detector (PID) calibrated using 100 ppmv of hexane.

Abbreviations
SVE = soil vapor extraction
TFE = total fluids extraction
GWE = groundwater extraction
ppmv = parts per million by volume

TABLE 4

Extracted Vapor Analytical Results[1]

SFPP Norwalk Pump Station, Norwalk, California

	ASTM D-1946			EPA TO-3	SCAQMD 25.1	EPA TO-15 (VOCs)[2]				
Date Sampled	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethylbenzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
8/3/2007	<0.5	<0.5	22.0	63	---	650	220	1,100	1,420	55
9/5/2007	<0.5	<0.5	22.0	9	---	32	48	140	320	18
10/2/2007	<0.5	<0.5	21.9	27	---	250	75	430	610	20
11/2/2007	<0.5	<0.5	22.1	5	---	40	10	74	95	7
2/1/2008	<0.5	<0.5	21.8	100	---	830	260	2,200	1,850	<50
3/4/2008	<0.5	<0.5	21.7	50	---	380	98	570	1,250	36
4/8/2008	<0.5	<0.5	22.2	69	---	290	110	480	1,040	41
5/23/2008	<0.5	<0.5	21.8	14	---	180	24	190	280	23
6/3/2008	<0.5	<0.5	21.7	30	---	380	42	400	330	70
7/2/2008	<0.5	<0.5	21.4	49	---	32	6	34	45	10
8/19/2008	<0.5	1.7	20.8	50	---	390	63	230	450	40
9/5/2008	<0.5	2.0	21.2	22	---	130	39	130	340	42
10/7/2008	<0.5	1.43	21.4	10	---	41	15	54	181	6.8
11/4/2008	<0.5	2.08	21.1	7.5	---	31	47	190	242	<2.0
3/6/2009	<0.5	<0.5	22.0	83	---	1,900	180	990	770	240
4/17/2009	<0.5	<0.5	22.2	3.1	---	140	8	37	68	26
5/29/2009	<0.5	1.08	21.0	130	---	1,700	640	3,700	3,100	100
8/18/2009	<0.5	0.78	21.7	28	---	380	37	290	310	33
8/25/2009	<0.5	0.87	20.6	37	---	500	44	320	293	20
9/18/2009	<0.5	0.37	21.6	11	---	75	11	39	107	3
10/29/2009	<0.5	1.80	18.2	77	---	350	45	250	440	4
11/25/2009	<0.5	<0.5	21.1	14	---	110	12	110	164	11
12/15/2009	<0.5	<0.5	21.7	7	---	28	3	20	47	<3.2
2/26/2010	<0.5	0.4	21.2	20	---	300	18	220	260	21
3/26/2010	<0.5	1.0	20.2	18	---	380	20	110	90	5
5/4/2010	<0.5	0.4	21.4	13	---	100	42	170	222	3
6/29/2010	<0.5	0.4	21.3	9	---	74	13	66	82	<5.0
8/3/2010	<0.5	0.6	20.4	29	---	210	13	64	85	9
8/31/2010	0.0039 [3]	<0.5	21.4	11	---	72	12	66	87	8
9/14/2010	<0.5	<0.5	21.6	6	---	63	15	57	84	<3.2
11/2/2010	--	--	--	11	---	140	<10	31	28	<10
11/17/2010	0.00075	0.4	22.0	--	---	--	--	--	--	--
12/28/2010	0.0052	0.27	22.0	16	---	160	37	230	324	4.5
1/14/2011	0.016	0.20	22.0	68	---	340	34	89	183	<10
2/8/2011	0.026	0.24	21.0	210	---	3,000	1,700	11,000	7,400	110
3/29/2011	0.013	0.13	20.0	5	---	170	15	18	41.5	<2.5
4/26/2011	0.0011	0.079	20.0	1.9	---	16	2.4	8.8	7.7	<1.2
5/17/2011	0.021	0.65	22.0	90	---	2,600	140	2,200	1,100	220
6/17/2011	0.001	0.20	22.0	3	---	59	8.1	31	56	<0.25
7/19/2011	0.0056	0.49	22.0	80	---	1,800	130	2,200	1,000	<31
8/16/2011	0.0026	0.31	22.0	140	---	3,000	600	4,000	2,330	490
9/20/2011	--	--	--	100	---	2,100	740.0	2,700	2,040	660
11/22/2011	0.070	0.70	20.0	11	---	150	12.0	67	35	<5.0
12/20/2011	0.020	0.34	22.0	0	---	110	<25	260	216	<25
1/10/2012	0.010	0.66	20.0	11	---	150	14	86	160	<12
2/28/2012	0.0067	0.90	20.0	27	---	140	42	140	224	<25
3/13/2012	0.0044	0.71	20.0	27	---	440	38	450	241	<25
4/27/2012	0.0290	0.22	21.0	39	---	540	42	630	299	<25
5/22/2012	0.0100	0.31	20.0	65	---	590	350	770	2,070	<12
6/19/2012	0.0028	0.41	21.0	17	---	130	26	150	162	<12
7/27/2012	0.0059	0.40	21.0	13	---	46	<5	33	78	<5
8/30/2012	0.0049	0.56	21.0	69	---	150	<25	66	194	<25
9/25/2012	0.0073	0.80	21.0	57	---	190	19	120	283	<2.5
10/30/2012	0.0099	0.96	21.0	50	---	380	<50	230	130	<50
12/11/2012	0.0074	0.84	21.0	53	---	130	17	110	173	<5.0

TABLE 4

Extracted Vapor Analytical Results[1]

SFPP Norwalk Pump Station, Norwalk, California

	ASTM D-1946			EPA TO-3	SCAQMD 25.1	EPA TO-15 (VOCs)[2]				
Date Sampled	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethylbenzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
1/29/2013	0.0028	0.29	22.0	1.4	---	8.7	<1.2	9.4	9.6	<1.2
2/12/2013	0.0057	0.88	21.0	60	---	500	<50	440	400	<50
3/19/2013	0.0058	0.80	21.0	77	---	560	66	490	520	<40
4/16/2013	0.0079	0.74	21.0	53	---	430	29	240	193	<25
5/14/2013	0.017	1.6	19	280	---	1,700	190	1,800	840	<12
6/28/2013	0.0068	<0.010	21	22	---	190	<25	130	131	<25
SVE system down for repair from July 16, 2013, to September 17, 2013.										
9/20/2013	0.014	1	21	590	---	4,200	520	3,600	2,830	<40
10/15/2013	0.011	0.68	21	410	---	3,500	360	2,800	1,970	<20
11/12/2013	0.012	0.66	21	430	---	2,900	440	2,600	1,930	<15
12/10/2013	0.013	0.92	21	910	---	8,400	920	7,200	5,500	<50
1/17/2014	0.0077	0.57	21	350	---	6,600	6,800	8,200	23,300	3,000
2/11/2014	0.011	0.60	21	640	---	6,600	570	6,000	3,800	<100
3/21/2014	0.0050	0.40	21	390	---	4,500	290	4,000	1,930	<50
4/21/2014	0.011	0.65	21	700	---	6,900	370	6,900	3,400	<40
SVE system down for repair from April 29, 2014 to May 13, 2014.										
5/27/2014	0.011	0.56	21	530	---	6,600	570	8,900	3,820	<50
6/13/2014	0.0076	0.49	21	780	---	10,000	1,200	15,000	7,100	<80
SVE system down for repair and permit modification from July 1, 2014 to March 27, 2015.										
3/31/2015	0.090	1.3	20	1,400	1,300	12,000	1,000	11,000	7,400	<200

Notes

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

Abbreviations

ASTM = ASTM International (formerly American Society for Testing and Materials)
EPA = U.S. Environmental Protection Agency
VOC = volatile organic compound
%v = percent by volume
TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)
ppmv = parts per million by volume
ppbv = parts per billion by volume
MTBE = methyl tertiary butyl ether
TGNMOC = total gaseous non-methane organic carbon
<0.5 = not detected at or above the laboratory reporting limit shown

TABLE 5
Groundwater Remediation System Operation Summary
SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Groundwater Removed from the South-Central and Southeastern Areas (gallons)	Groundwater Removed from the West Side Barrier Area (gallons)	Total Groundwater Removed (gallons)	Influent TPH-total (TPH-g, TPH-d, TPH-o) Concentration (µg/L)	Estimated Hydrocarbon Mass Removed from the South-Central, Southeastern, and West Side Barrier Areas (pounds)[1]	Product Recovery (gallons)
1996 Totals	**1,802,103**	**0**	**1,802,103**	**--**	**273**	**4,995**
1997 Totals	**7,031,533**	**0**	**7,031,533**	**--**		**2,204**
1998 Totals	**4,064,700**	**0**	**4,064,700**	**--**		**856**
1999 Totals	**3,891,600**	**2,338,129**	**6,229,729**	**--**	**385**	**450**
2000 Totals	**2,290,580**	**2,454,971**	**4,745,551**	**--**	**295**	**230**
2001 Totals	**1,401,473**	**1,131,700**	**2,533,173**	**--**	**229**	**0**
2002 Totals	**1,452,229**	**2,931,167**	**4,383,396**	**--**	**110**	**10**
2003 Totals	**1,607,095**	**2,281,956**	**3,889,051**	**--**	**65**	**0**
2004 Totals	**1,695,361**	**3,854,470**	**5,549,831**	**--**	**229**	**83**
2005 Totals	**1,537,925**	**4,244,674**	**5,782,599**	**--**	**273**	**89**
2006 Totals	**1,699,567**	**5,089,615**	**6,789,182**	**--**	**684**	**0**
2007 Totals	**3,368,481**	**2,167,724**	**5,536,205**	**--**		**0**
2008 Totals [2]	**4,283,026**	**405,954**	**4,688,980**	**--**	**520**	**0**
2009 Totals	**2,309,627**	**0**	**2,309,627**	**--**	**105**	**0**
2010 Totals [3]	**3,342,227**	**2,244**	**3,344,471**	**--**	**363**	**0**
2011 Totals	**5,530,317**	**0**	**5,530,317**	**--**	**585**	**0**
2012 Totals	**7,368,318**	**0**	**7,368,318**	**--**	**699**	**0**
2013 Totals	**6,439,776**	**0**	**6,439,776**	**--**	**568**	**2**
2014 Totals	**3,410,458**	**0**	**3,410,458**	**--**	**2,236**	**2,335**
1/1/2015	10,913	0	10,913	28,082	2.55	
1/2/2015	10,821	0	10,821	28,082	2.53	
1/3/2015	10,687	0	10,687	28,082	2.50	
1/4/2015	10,742	0	10,742	28,082	2.51	
1/5/2015	10,680	0	10,680	28,082	2.50	
1/6/2015	10,811	0	10,811	28,082	2.53	
1/7/2015	11,045	0	11,045	28,082	2.58	
1/8/2015	11,608	0	11,608	28,082	2.72	
1/9/2015	11,618	0	11,618	28,082	2.72	
1/10/2015	11,476	0	11,476	28,082	2.68	
1/11/2015	11,658	0	11,658	28,082	2.73	
1/12/2015	11,871	0	11,871	28,082	2.78	
1/13/2015	11,554	0	11,554	28,082	2.70	
1/14/2015	11,422	0	11,422	28,082	2.67	
1/15/2015	11,596	0	11,596	13,870	1.34	
1/16/2015	10,368	0	10,368	13,870	1.20	
1/17/2015	7,837	0	7,837	13,870	0.91	
1/18/2015	7,927	0	7,927	13,870	0.92	
1/19/2015	7,781	0	7,781	13,870	0.90	
1/20/2015	7,654	0	7,654	13,870	0.88	
1/21/2015	7,528	0	7,528	13,870	0.87	
1/22/2015	7,584	0	7,584	13,870	0.88	
1/23/2015	7,539	0	7,539	13,870	0.87	
1/24/2015	7,541	0	7,541	13,870	0.87	
1/25/2015	6,649	0	6,649	13,870	0.77	
1/26/2015	6,671	0	6,671	13,870	0.77	
1/27/2015	6,624	0	6,624	13,870	0.77	
1/28/2015	10,345	0	10,345	13,870	1.20	
1/29/2015	13,323	0	13,323	13,870	1.54	
1/30/2015	14,402	0	14,402	13,870	1.66	
1/31/2015	14,510	0	14,510	13,870	1.68	
2/1/2015	14,207	0	14,207	13,870	1.64	
2/2/2015	14,066	0	14,066	13,870	1.63	
2/3/2015	13,888	0	13,888	13,870	1.60	51
2/4/2015	11,288	0	11,288	13,870	1.30	
2/5/2015	13,952	0	13,952	13,870	1.61	
2/6/2015	13,898	0	13,898	13,870	1.61	
2/7/2015	14,049	0	14,049	13,870	1.62	
2/8/2015	14,405	0	14,405	13,870	1.66	
2/9/2015	14,443	0	14,443	13,870	1.67	
2/10/2015	14,369	0	14,369	13,870	1.66	
2/11/2015	13,976	0	13,976	13,870	1.61	
2/12/2015	14,102	0	14,102	13,870	1.63	
2/13/2015	13,681	0	13,681	13,870	1.58	
2/14/2015	12,679	0	12,679	13,870	1.47	
2/15/2015	12,363	0	12,363	13,870	1.43	

TABLE 5
Groundwater Remediation System Operation Summary
SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Groundwater Removed from the South-Central and Southeastern Areas (gallons)	Groundwater Removed from the West Side Barrier Area (gallons)	Total Groundwater Removed (gallons)	Influent TPH-total (TPH-g, TPH-d, TPH-o) Concentration (µg/L)	Estimated Hydrocarbon Mass Removed from the South-Central, Southeastern, and West Side Barrier Areas (pounds)[1]	Product Recovery (gallons)
2/16/2015	12,454	0	12,454	13,870	1.44	
2/17/2015	12,388	0	12,388	13,870	1.43	
2/18/2015	12,254	0	12,254	13,870	1.42	
2/19/2015	12,249	0	12,249	13,870	1.42	
2/20/2015	12,218	0	12,218	170,000	17.30	
2/21/2015	12,330	0	12,330	170,000	17.46	
2/22/2015	12,045	0	12,045	170,000	17.06	
2/23/2015	12,296	0	12,296	170,000	17.41	
2/24/2015	11,970	0	11,970	170,000	16.95	
2/25/2015	12,506	0	12,506	170,000	17.71	
2/26/2015	13,326	0	13,326	170,000	18.87	
2/27/2015	13,753	0	13,753	170,000	19.48	
2/28/2015	14,863	0	14,863	170,000	21.05	
3/1/2015	16,692	0	16,692	170,000	23.64	
3/2/2015	16,641	0	16,641	170,000	23.57	
3/3/2015	16,327	0	16,327	560,000	76.17	
3/4/2015	9,045	0	9,045	560,000	42.20	
3/5/2015	13,227	0	13,227	560,000	61.71	
3/6/2015	13,196	0	13,196	560,000	61.56	15
3/7/2015	10,926	0	10,926	560,000	50.97	
3/8/2015	13,966	0	13,966	560,000	65.16	
3/9/2015	13,503	0	13,503	560,000	63.00	
3/10/2015	13,899	0	13,899	560,000	64.84	
3/11/2015	13,430	0	13,430	560,000	62.66	
3/12/2015	11,271	0	11,271	560,000	52.58	
3/13/2015	11,384	0	11,384	560,000	53.11	
3/14/2015	11,744	0	11,744	560,000	54.79	
3/15/2015	5,739	0	5,739	560,000	26.77	
3/16/2015	0	0	0	560,000	0.00	
3/17/2015	3	0	3	560,000	0.01	
3/18/2015	10	0	10	560,000	0.05	
3/19/2015	0	0	0	560,000	0.00	
3/20/2015	1	0	1	560,000	0.00	
3/21/2015	53	0	53	560,000	0.25	
3/22/2015	10	0	10	560,000	0.05	
3/23/2015	14	0	14	560,000	0.07	
3/24/2015	3,925	0	3,925	560,000	18.31	
3/25/2015	6,867	0	6,867	560,000	32.04	
3/26/2015	5,172	0	5,172	560,000	24.13	
3/27/2015	9,598	0	9,598	560,000	44.78	
3/28/2015	10,570	0	10,570	560,000	49.31	
3/29/2015	10,075	0	10,075	560,000	47.00	
3/30/2015	8,769	0	8,769	560,000	40.91	
3/31/2015	7,259	0	7,259	560,000	33.87	
First Quarter 2015 Totals	**936,119**	**0**	**936,119**	**--**	**1,321**	**66**
Cumulative Total	**65,462,515**	**26,902,604**	**92,365,119**	**--**	**8,941**	**11,320**

Notes

1. Estimated hydrocarbon mass removed (pounds) between 1996 and 2005 is based on concentrations of dissolved BTEX and MTBE in the groundwater influent and volume of groundwater extracted. Estimated hydrocarbon mass removed (pounds) between 2006 and 2011 is based on concentrations of TPH-g and TPH-fp in the groundwater influent and volume of groundwater extracted. Estimated hydrocarbon mass removed (pounds) between 2012 and 2015 is based on concentrations of dissolved TPH-total in the groundwater influent and volume of extracted groundwater.
2. Groundwater removal in the West Side Barrier area was discontinued in August 2008.
3. Groundwater extraction from West Side Barrier area wells BW-3 and BW-6 was resumed on May 14, 2010, to evaluate the efficacy of blending water with lower selenium concentrations from these wells with groundwater extracted from the south-central and southeastern areas. Groundwater removal from the West Side Barrier area was discontinued again on June 22, 2010.

Abbreviations

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)
TPH-fp = total petroleum hydrocarbons quantified as fuel product (C7-C28)
TPH-d = total petroleum hydrocarbons quantified as diesel (C13-C22)
TPH-o = total petroleum hydrocarbons quantified as oil (C23-C36)
TPH-total = total petroleum hydrocarbons quantified as gas, diesel, and oil (C4-C36)
µg/L = micrograms per liter
-- = not applicable

TABLE 6

Extracted Groundwater Analytical Results[1]

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs)[2]								
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
3/6/1996	--	--	--	--	--	2,600	790	7,200	9,100	---	--	--	--	--
7/23/1998	--	--	--	--	--	750	<10	360	300	---	--	--	--	--
8/27/1998	--	--	--	--	--	1,000	71	530	800	---	--	--	--	--
10/1/1998	--	--	--	--	--	1,200	<10	1,400	1,680	---	--	--	--	--
11/19/1998	--	--	--	--	--	1,600	140	2,600	2,900	---	--	--	--	--
12/17/1998	--	--	--	--	--	4,500	380	4,500	3,900	---	--	--	--	--
1/28/1999	--	--	--	--	--	520	79	660	840	---	--	--	--	--
3/25/1999	--	--	--	--	--	540	160	1,800	4,100	---	--	--	--	--
4/2/1999	--	--	--	--	--	620	76	520	1,200	---	--	--	--	--
4/15/1999	--	--	--	--	--	1,400	99	800	1,480	---	--	--	--	--
5/6/1999	--	--	--	--	--	1,340	180	1,240	1,730	---	--	--	--	--
6/3/1999	--	--	--	--	--	3,410	343	2,240	2,770	---	--	--	--	--
8/5/1999	--	--	--	--	--	3,200	780	5,400	5,200	---	--	--	--	--
9/23/1999	--	--	--	--	--	2,700	130	1,200	720	---	--	--	--	--
9/30/1999	--	--	--	--	--	1,300	77	480	560	---	--	--	--	--
10/13/1999	--	--	--	--	--	1,400	100	660	720	---	--	--	--	--
11/4/1999	--	--	--	--	--	3,000	500	5,600	4,500	---	--	--	--	--
12/9/1999	--	--	--	--	--	4,500	280	1,400	1,480	---	--	--	--	--
1/13/2000	--	--	--	--	--	9,000	7,600	14,000	44,000	---	--	--	--	--
2/11/2000	--	--	--	--	--	2,300	<100	1,200	1,240	3,100	--	--	--	--
3/10/2000	--	--	--	--	--	380	20	110	430	740	--	--	--	--
4/13/2000	--	--	--	--	--	1,300	550	450	920	970	--	--	--	--
6/2/2000	--	--	--	--	--	840	56	240	980	920	--	--	--	--
6/15/2000	--	--	--	--	--	1,600	82	900	990	2,700	--	--	--	--
8/3/2000	--	--	--	--	--	1,900	410	3,500	4,400	2,700	--	--	--	--
8/28/2000	--	--	--	--	--	620	33	200	380	1,800	--	--	--	--
9/20/2000	--	--	--	--	--	460	<20	73	255	1,300	--	--	--	--
10/25/2000	--	--	--	--	--	20	<20	<20	216	6,700	--	--	--	--
11/15/2000	--	--	--	--	--	560	24	210	490	3,700	--	--	--	--
3/22/2001	--	--	--	--	--	3,800	360	3,900	3,160	5,500	--	--	--	--
4/30/2001	--	--	--	--	--	4,100	710	5,800	5,600	8,300	--	--	--	--
5/23/2001	--	--	--	--	--	3,400	160	1,100	1,070	3,900	--	--	--	--
6/22/2001	--	--	--	--	--	1,700	85	680	680	2,200	--	--	--	--
7/16/2001	--	--	--	--	--	2,300	130	1,100	1,350	2,100	--	--	--	--
9/5/2001	--	--	--	--	--	1,500	170	1,200	1,890	1,100	--	--	--	--
1/23/2002	--	--	--	--	--	<0.5	<1	<1	<2	2	--	--	--	--
2/28/2002	--	--	--	--	--	<0.5	<1	<1	<2	96	--	--	--	--
3/25/2002	--	--	--	--	--	<0.5	<1	<1	<2	87	--	--	--	--
5/1/2002	--	--	--	--	--	1,900	31	190	480	1,100	--	--	--	--
5/17/2002	--	--	--	--	--	1,400	50	180	970	1,000	--	--	--	--
6/4/2002	--	--	--	--	--	2,700	57	280	530	1,300	--	--	--	--
7/18/2002	--	--	--	--	--	3,800	66	530	1,160	330	--	--	--	--
8/8/2002	--	--	--	--	--	4,800	49	610	1,290	460	--	--	--	--
9/3/2002	--	--	--	--	--	260	<5	5	71	600	--	--	--	--
10/18/2002	--	--	--	--	--	1,200	70	490	820	570	--	--	--	--
11/26/2002	--	--	--	--	--	1,300	68	130	590	860	--	--	--	--
12/27/2002	--	--	--	--	--	1	<1	<1	<2	58	--	--	--	--
1/30/2003	--	--	--	--	--	<0.5	<1	<1	<2	37	--	--	--	--

TABLE 6
Extracted Groundwater Analytical Results[1]
SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs)[2]								
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
2/26/2003	--	--	--	--	--	4	<1	<1	4	140	--	--	--	--
3/17/2003	--	--	--	--	--	2,800	23	170	480	570	--	--	--	--
4/30/2003	--	--	--	--	--	3,700	350	2,200	4,600	490	--	--	--	--
6/13/2003	--	--	--	--	--	1,200	17	120	510	740	--	--	--	--
6/19/2003	--	--	--	--	--	680	<10	35	239	680	--	--	--	--
7/3/2003	--	--	--	--	--	2,600	160	610	2,290	450	--	--	--	--
7/25/2003	--	--	--	--	--	300	6	3	39	230	--	--	--	--
8/20/2003	--	--	--	--	--	830	19	130	350	290	--	--	--	--
9/11/2003	--	--	--	--	--	270	<10	<10	46	420	--	--	--	--
10/16/2003	--	--	--	--	--	380	<10	<10	121	490	--	--	--	--
11/17/2003	--	--	--	--	--	93	6	22	106	200	--	--	--	--
12/19/2003	--	--	--	--	--	300	27	110	1,010	62	--	--	--	--
1/30/2004	--	--	--	--	--	700	140	740	1,740	22	--	--	--	--
2/17/2004	--	--	--	--	--	300	47	440	1,150	19	--	--	--	--
3/8/2004	--	--	--	--	--	52	<5.0	10	149	23	--	--	--	--
3/21/2004	--	--	--	--	--	420	11	29	318	120	--	--	--	--
6/28/2004	--	--	--	--	--	740	26	46	337	81	--	--	--	--
7/30/2004	--	--	--	--	--	660	18	68	280	87	--	--	--	--
8/27/2004	--	--	--	--	--	1,500	47	140	530	77	--	--	--	--
9/28/2004	--	--	--	--	--	400	10	32	252	64	--	--	--	--
10/15/2004	--	--	--	--	--	950	31	130	316	64	--	--	--	--
11/12/2004	--	--	--	--	--	2,100	1,500	390	15,800	3,000	--	--	--	--
12/10/2004	--	--	--	--	--	700	320	1,100	3,900	110	--	--	--	--
1/28/2005	--	--	--	--	--	460	140	520	2,260	610	--	--	--	--
2/25/2005	--	--	--	--	--	5,700	200	650	1,560	1,300	--	--	--	--
3/22/2005	--	--	--	--	--	<5	<10	<10	26	1,000	--	--	--	--
4/21/2005	--	--	--	--	--	680	8	21	108	420	--	--	--	--
5/20/2005	--	--	--	--	--	6	<5	9	50	<5	--	--	--	--
6/28/2005	--	--	--	--	--	450	80	690	1,030	1,600	--	--	--	--
7/27/2005	--	--	--	--	--	2,000	170	1,700	5,000	1,200	--	--	--	--
8/31/2005	--	--	--	--	--	660	34	320	670	220	--	--	--	--
9/28/2005	--	--	--	--	--	1,800	310	2,800	4,700	360	--	--	--	--
10/26/2005	--	--	--	--	--	940	330	1,800	3,600	530	--	--	--	--
11/30/2005	--	--	--	--	--	900	170	900	2,790	760	--	--	--	--
12/20/2005	--	--	--	--	--	2,500	350	2,600	4,100	2,300	--	--	--	--
7/11/2007	--	--	--	--	--	4,800	130	890	1,040	690	--	--	--	--
8/7/2007	14,000	--	--	--	11,000	5,400	140	1,100	770	540	--	--	--	--
9/25/2007	12,000	--	--	--	30,000	3,400	310	1,600	2,390	540	--	--	--	--
10/16/2007	8,900	--	--	--	8,400	3,400	94	520	660	390	--	--	--	--
11/2/2007	44,000	--	--	--	6,500	3,200	130	860	1,160	570	--	--	--	--
11/30/2007	6,000	--	--	--	5,200	1,800	48	170	490	450	--	--	--	--
12/21/2007	7,200	--	--	--	4,200	2,100	41	170	430	750	--	--	--	--
1/4/2008	4,300	--	--	--	7,200	3,300	49	300	540	620	--	--	--	--
1/18/2008	11,000	--	--	--	2,200	3,600	140	650	850	620	--	--	--	--
2/1/2008	8,700	--	--	--	5,700	3,600	100	440	930	560	--	--	--	--
3/4/2008	7,200	--	--	--	4,900	3,900	120	510	770	620	--	--	--	--
4/8/2008	8,100	--	--	--	10,000	2,800	96	280	580	640	--	--	--	--
5/6/2008	5,300	--	--	--	2,800	2,900	76	190	328	430	--	--	--	--

TABLE 6

Extracted Groundwater Analytical Results[1]

SFPP Norwalk Pump Station, Norwalk, California

	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs)[2]								
Date Sampled	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
6/3/2008	8,400	--	--	--	6,800	3,700	110	450	480	320	--	--	--	--
7/2/2008	9,200	--	--	--	4,300 [3]	4,500	75	620	650	400	--	--	--	--
8/19/2008	4,000	--	--	--	6,600	2,600	57	76	215	450	--	--	--	--
9/5/2008	160	--	--	--	<500	<12	<25	<25	<25	<25	--	--	--	--
10/7/2008	<100	--	--	--	<500	0.36 J	<1.0	<1.0	1.59	1.7	--	--	--	--
11/4/2008	12,000	--	--	--	660,000	2,500	140	220	760	160	--	--	--	--
12/4/2008	1,300	--	--	--	1,500	600	8.2	28	73	130	--	--	--	--
1/6/2009	1,500	--	--	--	980	560	23	41	110	320	--	--	--	--
3/6/2009	2,500	--	--	--	1,500	1,100	33	51	114	65	--	--	--	--
4/7/2009	3,100	--	--	--	6,900	1,100	36	230	207	210	--	--	--	--
5/13/2009	690	--	--	--	1,500	120	3.2	14	60	24	--	--	--	--
6/12/2009	150	--	--	--	<500	<0.50	<1.0	<1.0	0.71 J	44	--	--	--	--
7/10/2009	4,500	--	--	--	560	1,500	41	68	175	150	--	--	--	--
8/4/2009	2,000	--	--	--	1,000	1,200	16	18	64	100	--	--	--	--
9/1/2009	4,800	--	--	--	3,500	380	45	25	328	5.4 J	--	--	--	--
10/6/2009	3,900	--	--	--	4,600	3,200	21	15	35	82	--	--	--	--
10/27/2009	1,000	--	--	--	<500	520	4	15	10	180	--	--	--	--
11/3/2009	120	--	--	--	<500	2	0.55 J	0.61 J	3	40	--	--	--	--
11/25/2009	5,700	--	--	--	4,000	3,100	26	13	48	88	--	--	--	--
2/16/2010	8,000	--	--	--	5,900	4,700	110	1,300	800	1,800	--	--	--	--
3/9/2010	7,000	--	--	--	5,900	6,600	110	460	550	410	--	--	--	--
4/20/2010	10,000	--	--	--	11,000	6,000	44	230	174	130	--	--	--	--
5/14/2010	8,500	--	--	--	2,100	3,600	67	380	400	210	--	--	--	--
6/25/2010	4,600	--	--	--	2,600	2,200	61	540	380	170	--	--	--	--
7/20/2010	21,000	--	--	--	21,000	3,400	370	3,000	2,550	2,300	--	--	--	--
8/3/2010	3,400	--	--	--	1,500	1,400	17	140	161	390	--	--	--	--
8/10/2010	5,800	--	--	--	3,400	2,600	40	190	169	140	--	--	--	--
9/14/2010	9,400	--	--	--	10,000	4,900	170	1,100	1,340	380	--	--	--	--
10/12/2010	5,700	--	--	--	1,000	2,200	43	140	138	120	--	--	--	--
11/16/2010	1,100	--	--	--	1,600	290	4	15	78	84	--	--	--	--
12/14/2010	7,100	--	--	--	3,200	2,600	76	200	315	340	--	--	--	--

TABLE 6

Extracted Groundwater Analytical Results[1]

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs)[2]								
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
1/14/2011	7,400	--	--	--	3,500	3,700	56	110	220	280	--	--	--	--
2/8/2011	5,600	--	--	--	3,500	2,400	43	110	190	420	--	--	--	--
3/25/2011	3,100	--	--	--	1,200	1,300	51	92	200	300	--	--	--	--
4/26/2011	1,400	--	--	--	1,200	610	5.8	5.7	20	130	--	--	--	--
5/17/2011	3,300	--	--	--	1,700	3,600	82	180	300	240	--	--	--	--
6/21/2011	1,200	--	--	--	720	860	9.6	31	82	190	2,200	6.6	<0.07	<0.1
7/27/2011	14,000	10,000	44J	--	--[4]	2,800	150	490	2,100	350	2,800	27	<0.07	<0.1
8/26/2011	7,400	--	--	--	57,000	1,400	120	480	1,300	270	1,600	16	<0.07	<0.1
9/23/2011	6,400	--	--	--	2,800	2,800	83.0	160	340	300	1,300	22	<0.07	<0.1
10/25/2011	6,000	--	--	--	2,300	3,000	52	93	200	200	970	20	<0.70	<1.0
11/22/2011	5,900	--	--	--	2,000	3,600	62	140	240	300	2,900	26	<0.07	<0.1
12/20/2011	780	--	--	--	2,000	330	8	14	43	160	1,000	18	<0.07	<0.1
1/10/2012	5,300	--	--	--	1,900	3,400	36	70	170	200	960	26	<0.07	<0.1
2/21/2012	4,900	--	--	--	<13	3,400	19	16	48	120	2,200	21	<0.07	<0.1
3/13/2012	6,100	--	--	--	2,100	2,900	43	79	180	120	1,600	23	<0.07	<0.1
4/27/2012	5,100	--	--	--	2,200	3,800	49	61	150	150	500	38	<0.13	<0.12
5/22/2012	6,800	--	--	--	31,000	2,800	49	140	262	150	690	30	<0.13	<0.12
6/19/2012	5,300	--	--	--	36,000	3,200	45	230	200	220	2,800	33	<0.13	<0.12
7/20/2012	5,600	2,400	210	8,200	--	3,000	71	72	510	170	2,700	26	<0.13	<0.12
8/21/2012	3,600	1,100	140	4,900	--	2,400	26	41	80	110	1,500	22	<0.13	<0.12
9/25/2012	2,100	710	71	2,800	--	1,700	25	35	86	150	690	17	<1.0	<1.0
10/30/2012	2,600	700	74	3,374	--	1,400	15	13	52	54	1,200	14	<0.061	<0.054
11/30/2012	860	8,200	260	9,320	--	1,100	2.4	4.4	12	23	690	<0.038	<0.061	<0.054
12/27/2012	6,200	820	86	7,106	--	2,000	39	76	130	120	1,300	20	<0.061	<0.054
1/15/2013	3,400	14,000	400	17,800	--	800	12	25	130	43	1,200	8.7	<0.061	<0.054
2/12/2013	9,900	3,100	150	13,150	--	2,100	110	440	820	110	330	22	<0.061	<0.054
3/5/2013	3,954	970	80	5,004	--	1,400	21	23	87	63	1,200	15	<0.061	<0.054
3/15/2013	--	--	--	--	--	1,400	25	49	98	74	570	14	<0.061	<0.054
4/16/2013	1,100	1,300	270	2,670	--	370	6	19	56	73	530	17	<0.061	<0.054
5/14/2013	4,300	830	99	5,229	--	2,000	52	98	181	61	270	22	<0.061	<0.054
6/28/2013	2,900	870	150	3,920	--	1,100	18	58	76	92	500	11	<0.061	<0.054
7/16/2013	3,600	1,000	130	4,730	--	870	19	47	140	100	600	14	<0.061	<0.054
8/16/2013	3,800	5,900	530	10,230	--	1,400	13	32	85	77	550	27	<0.061	<0.054
9/24/2013	5,800	12,000	550	18,350	--	990	53	400	630	78	440	20	<0.061	<0.054
10/15/2013	3,300	650	120	4,070	--	1,400	11	37	150	43	250	15	<0.061	<0.054
11/12/2013	5,600	3,500	190	9,290	--	570	99	230	660	89	550	20	<0.061	<0.054
12/13/2013	12,500	14,000	400	26,900	--	560	170	690	1,500	52	220	17	<0.061	<0.054

TABLE 6

Extracted Groundwater Analytical Results[1]

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs)[2]								
	TPH-g (µg/L)	TPH-d (µg/L)	TPH-o (µg/L)	TPH-total (µg/L)	TPH-fp (µg/L)	Benzene (µg/L)	Ethylbenzene (µg/L)	Toluene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
1/17/2014	5,900	980	130	7,010	--	4,200	13	18	61	89	810	40	<0.061	<0.054
2/11/2014	12,000	63,000	2,500	77,500	--	640	130	560	1,990	45	290	12	<0.061	<0.054
3/21/2014	42,000	77,000	2,000	121,000	--	3,700	440	3,300	3,900	100	360	17	<0.061	<0.054
4/21/2014	100,000	30,000	880	130,000	--	6,000	1,300	9,800	9,000	<0.098	<1.0	12	<0.061	<0.054
5/20/2014	33,000	15,000	470	48,000	--	1,400	570	2,700	5,400	30	<0.40	16	<0.061	<0.054
6/13/2014	77,000	33,000	1,100	110,000	--	7,700	1,900	10,000	13,000	38	<0.40	12	<0.061	<0.054
7/12/2014	28,000	82	<52	28,082	--	2,800	820	3,700	6,800	34	<0.40	18J	<25	<25
The GWTS was down between July 29, 2014 and December 1, 2014 to facilitate processing of the modifications to SCAQMD Permit No. F14166 for the GWTS.														
1/15/2015	8,000	5,600	270	13,870	--	2,200	22	140	430	21	390	11	<0.12	<0.11
2/20/2015	120,000	47,000	1,500	170,000	--	3,000	350	1,600	3,000	43	<0.80	17	<0.12	<0.11
3/3/2015	65,000	480,000	15,000	560,000	--	6,600	1,700	9,300	12,000	670	<0.80	11	<0.12	<0.11

Notes

1. Influent samples were collected from the manifold conveying groundwater extracted from the south-central and southeastern areas
2. Other detected VOCs are included in the laboratory analytical reports in Appendix A.
3. TPH-fp result from influent extracted groundwater sample collected on July 10, 2008.
4. July 27, 2011, sample and samples after July 20, 2012, were analyzed for TPH-g, TPH-d, and TPH-o.

Abbreviations

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)
TPH-fp = total petroleum hydrocarbons quantified as fuel product (C7-C28)
TPH-d = total petroleum hydrocarbons quantified as diesel (C13-C22)
TPH-o = total petroleum hydrocarbons quantified as oil (C23-C36)
TPH-total = total petroleum hydrocarbons quantified as gasoline, diesel, and oil (C4-C36)
MTBE = methyl tertiary butyl ether
µg/L = micrograms per liter
-- = not analyzed
<500 = Not detected at or above the laboratory reporting limit (RL) shown
J = Analyte was detected above the laboratory method detection limit and below the laboratory RL
TBA = tertiary butyl alcohol
DIPE = di-isopropyl ether
ETBE = ethyl tertiary butyl ether
TAME = tertiary amyl methyl ether

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-9	8/8/2008	74.44	28.01	27.96	0.05	46.47	Envent
	10/16/2008	74.44	28.36	28.35	0.01	46.09	Envent
	12/17/2008	74.44	27.61	---	---	46.83	Envent
	1/15/2009	74.44	28.91	---	---	45.53	Envent
	3/27/2009	74.44	29.04	---	---	45.40	Envent
	4/21/2009	74.44	28.16	---	---	46.28	Envent
	7/21/2009	74.44	28.31	---	---	46.13	Envent
	5/24/2010	74.44	30.47	---	---	43.97	Blaine Tech
	5/28/2010	74.44	30.35	---	---	44.09	Blaine Tech
	10/4/2010	74.44	30.30	---	---	44.14	Blaine Tech
	1/10/2011	74.44	32.02	---	---	42.42	Blaine Tech
	4/11/2011	74.44	25.41	---	---	49.03	Blaine Tech
	10/10/2011	74.44	28.91	---	---	45.53	Blaine Tech
	4/16/2012	77.16	31.15	---	---	46.01	Blaine Tech
	10/15/2012	77.16	31.82	---	---	45.34	Blaine Tech
	1/14/2013	77.16	31.88	---	---	45.28	Blaine Tech
	4/8/2013	77.16	31.83	---	---	45.33	Blaine Tech
	10/7/2013	77.16	35.30	31.25	4.05	45.02	Blaine Tech
	4/14/2014	77.16	37.66	31.65	6.01	44.19	Blaine Tech
	5/5/2014	77.16	37.81	31.76	6.05	44.07	Nieto & Sons
	5/12/2014	77.16	37.39	31.83	5.56	44.11	Nieto & Sons
	5/20/2014	77.16	37.7	33.85	3.85	42.46	Nieto & Sons
	5/27/2014	77.16	32.41	28.84	3.57	47.53	Nieto & Sons
	6/4/2014	77.16	33.2	---	---	43.96	Nieto & Sons
	6/10/2014	77.16	37.51	32.77	4.74	43.35	Nieto & Sons
	7/3/2014	77.16	39.26	32.59	6.67	43.10	Nieto & Sons
	7/8/2014	77.16	38.59	32.45	6.14	43.36	Blaine Tech
	7/18/2014	77.16	37.15	32.73	4.42	43.46	Blaine Tech
	7/24/2014	77.16	37.78	32.48	5.3	43.51	Blaine Tech
	8/1/2014	77.16	36.72	32.3	4.42	43.89	Blaine Tech
	8/8/2014	77.16	36.55	32.26	4.29	43.96	Blaine Tech
	8/13/2014	77.16	36.25	32.33	3.92	43.97	Blaine Tech
	8/19/2014	77.16	36.04	32.38	3.66	43.97	Blaine Tech
	8/29/2014	77.16	36.23	32.33	3.9	43.97	Blaine Tech
	9/5/2014	77.16	36.26	32.35	3.91	43.95	Blaine Tech
	9/11/2014	77.16	36.27	32.33	3.94	43.96	Blaine Tech
	9/18/2014	77.16	36.42	32.37	4.05	43.90	Blaine Tech
	9/26/2014	77.16	36.39	32.35	4.04	43.92	Blaine Tech
	10/1/2014	77.16	36.11	32.42	3.69	43.93	Blaine Tech
	10/6/2014	77.16	35.99	32.42	3.57	43.95	Blaine Tech
	10/14/2014	77.16	36.24	32.34	3.9	43.96	Blaine Tech
	10/23/2014	77.16	36.32	32.35	3.97	43.94	Blaine Tech
	10/27/2014	77.16	36.04	32.42	3.62	43.94	Blaine Tech
	11/3/2014	77.16	36.4	32.35	4.05	43.92	Blaine Tech
	11/10/2014	77.16	36.32	32.41	3.91	43.89	Blaine Tech
	11/18/2014	77.16	36.28	32.43	3.85	43.88	Blaine Tech
	11/25/2014	77.16	36.21	32.49	3.72	43.85	Blaine Tech
	12/3/2014	77.16	36.18	32.43	3.75	43.91	Blaine Tech
	12/12/2014	77.16	36.58	32.74	3.84	43.58	Blaine Tech
	12/19/2014	77.16	37.05	32.76	4.29	43.46	Blaine Tech
	3/6/2015	77.16	39.4	33.13	6.27	42.65	KMEP
GMW-10	04/30/2007	74.67	---	25.9	---	---	Secor
	11/12/2007	74.67	25.02	25.82	0.83	50.33	Secor
	04/14/2008	74.67	25.38	25.44	0.06	49.34	Secor
	10/13/2008	74.67	24.16	---	---	50.51	Stantec
	4/20/2009	74.67	24.46	---	---	50.21	Blaine Tech
	10/19/2009	74.67	27.2	---	---	47.47	Blaine Tech
	5/24/2010	74.67	26.72	---	---	47.95	Blaine Tech
	5/28/2010	74.67	26.7	---	---	47.97	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/4/2010	74.67	27.15	---	---	47.52	Blaine Tech
	4/11/2011	74.67	25.21	---	---	49.46	Blaine Tech
	10/10/2011	74.67	27.75	---	---	46.92	Blaine Tech
	4/27/2012	74.67	28.47	---	---	46.20	Blaine Tech
	10/15/2012	74.67	29.15	29.02	0.13	45.63	Blaine Tech
	4/8/2013	74.67	33.64	28.12	5.52	45.53	Blaine Tech
	9/26/2013	N/A	36.15	29.25	6.9	---	CH2M HILL
	10/7/2013	N/A	31.85	29.32	2.53	---	Blaine Tech
	4/14/2014	73.35	29.43	29.01	0.42	44.26	Blaine Tech
	8/19/2014	73.35	29.8	29.53	0.27	43.77	Blaine Tech
	8/29/2014	73.35	29.68	29.25	0.43	44.02	Blaine Tech
	9/26/2014	73.35	29.98	29.23	0.75	43.98	Blaine Tech
	10/1/2014	73.35	29.98	29.19	0.79	44.01	Blaine Tech
	10/6/2014	73.35	30.01	29.16	0.85	44.03	Blaine Tech
	10/14/2014	73.35	30.01	29.18	0.83	44.02	Blaine Tech
	10/23/2014	73.35	30.17	29.15	1.02	44.01	Blaine Tech
	10/27/2014	73.35	30.19	29.12	1.07	44.03	Blaine Tech
	11/3/2014	73.35	30.25	29.13	1.12	44.01	Blaine Tech
	11/10/2014	73.35	29.85	29.28	0.57	43.96	Blaine Tech
	11/18/2014	73.35	29.95	29.28	0.67	43.95	Blaine Tech
	11/25/2014	73.35	30	29.27	0.73	43.94	Blaine Tech
	12/3/2014	73.35	30.18	29.27	0.91	43.91	Blaine Tech
	12/12/2014	73.35	30.81	29.45	1.36	43.65	Blaine Tech
	12/19/2014	73.35	30.51	30.35	0.16	42.97	Blaine Tech
GMW-22	11/12/2007	74.17	26.45	25.91	0.54	48.16	Stantec
	8/12/2008	74.17	26.70	---	---	47.47	Envent
	10/31/2008	74.17	28.25	27.04	1.21	46.91	Envent
	11/4/2008	74.17	26.97	---	---	47.20	Envent
	12/17/2008	74.17	26.65	---	---	47.52	Envent
	1/15/2009	74.17	27.18	---	---	46.99	Envent
	3/27/2009	74.17	27.86	---	---	46.31	Envent
	4/21/2009	74.17	27.30	27.20	0.10	46.95	Envent
	7/21/2009	74.17	27.70	---	---	46.47	Envent
	11/6/2009	74.17	28.12	---	---	46.05	Kinder Morgan
	9/3/2010	74.17	28.36	25.10	3.26	48.47	Kinder Morgan
	10/4/2010	74.17	27.65	---	---	46.52	Blaine Tech
	4/11/2011	74.17	26.45	---	---	47.72	Blaine Tech
	10/10/2011	74.17	29.68	---	---	44.49	Blaine Tech
	4/16/2012	77.24	31.15	---	---	46.09	Blaine Tech
	10/15/2012	77.24	31.05	---	---	46.19	Blaine Tech
	4/8/2013	77.24	31.92	---	---	45.32	Blaine Tech
	10/7/2013	77.24	34.28	31.65	2.63	45.10	Blaine Tech
	4/14/2014	77.24	35.59	32.3	3.29	44.33	Blaine Tech
	5/6/14	77.24	35.87	32.35	3.52	44.24	Nieto & Sons
	5/12/14	77.24	35.76	32.28	3.48	44.32	Nieto & Sons
	5/20/14	77.24	37.9	32.7	5.2	43.58	Nieto & Sons
	5/27/14	77.24	36.34	32.71	3.63	43.86	Nieto & Sons
	6/4/14	77.24	33.36	---	---	43.88	Nieto & Sons
	6/10/14	77.24	36.74	32.82	3.92	43.69	Nieto & Sons
	7/3/14	77.24	37.66	32.91	4.75	43.45	Nieto & Sons
	7/8/14	77.24	36.7	32.79	3.91	43.73	Blaine Tech
	7/18/14	77.24	36.68	32.77	3.91	43.75	Blaine Tech
	7/24/14	77.24	36.79	32.62	4.17	43.85	Blaine Tech
	8/1/2014	77.24	35.82	32.44	3.38	44.17	Blaine Tech
	8/8/2014	77.24	35.72	32.44	3.28	44.19	Blaine Tech
	8/13/2014	77.24	35.68	32.45	3.23	44.19	Blaine Tech
	8/19/2014	77.24	35.64	32.45	3.19	44.20	Blaine Tech
	8/29/2014	77.24	35.65	32.44	3.21	44.21	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	9/5/2014	77.24	35.73	32.46	3.27	44.18	Blaine Tech
	9/11/2014	77.24	35.78	32.47	3.31	44.16	Blaine Tech
	9/18/2014	77.24	35.85	32.49	3.36	44.13	Blaine Tech
	9/26/2014	77.24	35.85	32.46	3.39	44.15	Blaine Tech
	10/1/2014	77.24	35.76	32.45	3.31	44.18	Blaine Tech
	10/6/2014	77.24	35.72	32.44	3.28	44.19	Blaine Tech
	10/14/2014	77.24	35.75	32.42	3.33	44.20	Blaine Tech
	10/23/2014	77.24	35.84	32.43	3.41	44.18	Blaine Tech
	10/27/2014	77.24	35.74	32.41	3.33	44.21	Blaine Tech
	11/3/2014	77.24	35.89	32.45	3.44	44.15	Blaine Tech
	11/10/2014	77.24	35.94	32.45	3.49	44.14	Blaine Tech
	11/18/2014	77.24	35.97	32.48	3.49	44.11	Blaine Tech
	11/25/2014	77.24	35.97	32.51	3.46	44.09	Blaine Tech
	12/3/2014	77.24	35.84	32.45	3.39	44.16	Blaine Tech
	12/12/2014	77.24	36.44	32.65	3.79	43.89	Blaine Tech
	12/19/2014	77.24	36.8	34.71	2.09	42.14	Blaine Tech
GMW-24	11/12/2007	74.04	27.50	27.46	0.04	46.57	Stantec
	8/19/2008	74.04	29.34	28.24	1.10	45.58	Envent
	10/17/2008	74.04	30.88	29.90	0.98	43.94	Envent
	10/21/2008	74.04	29.64	28.30	1.34	45.47	Envent
	12/18/2008	74.04	29.04	---	---	45.00	Envent
	1/15/2009	74.04	30.56	29.80	0.76	44.09	Envent
	3/20/2009	74.04	31.28	---	---	42.76	Envent
	3/27/2009	74.04	30.45	---	---	43.59	Envent
	4/21/2009	74.04	29.91	---	---	44.13	Envent
	7/21/2009	74.04	32.78	---	---	41.26	Envent
	2/4/2010	74.04	29.67	29.40	0.27	44.59	Kinder Morgan
	6/22/2010	74.04	29.47	---	---	44.57	Blaine Tech
	9/3/2010	74.04	29.90	---	---	44.14	Kinder Morgan
	10/4/2010	74.04	29.50	---	---	44.54	Blaine Tech
	4/11/2011	74.04	28.21	---	---	45.83	Blaine Tech
	10/10/2011	74.04	28.78	---	---	45.26	Blaine Tech
	4/16/2012	77.48	30.49	30.31	0.18	47.13	Blaine Tech
	10/15/2012	77.48	31.34	---	---	46.14	Blaine Tech
	6/14/2013	77.48	33.35	32.40	0.95	44.89	Blaine Tech
	10/7/2013	77.48	35.42	31.61	3.81	45.11	Blaine Tech
	4/14/2014	77.48	37.74	32.01	5.73	44.32	Blaine Tech
	5/5/2014	77.48	37.81	32.09	5.72	44.25	Nieto & Sons
	5/12/2014	77.48	37.52	32.14	5.38	44.26	Nieto & Sons
	5/20/2014	77.48	37.39	32.21	5.18	44.23	Nieto & Sons
	5/27/2014	77.48	37.95	32.9	5.05	43.57	Nieto & Sons
	6/4/2014	77.48	37	32.7	4.3	43.92	Nieto & Sons
	6/10/2014	77.48	37.85	32.98	4.87	43.53	Nieto & Sons
	7/3/2014	77.48	39.6	33.04	6.56	43.13	Nieto & Sons
	7/8/2014	77.48	38.67	32.89	5.78	43.43	Blaine Tech
	7/18/2014	77.48	38.64	32.86	5.78	43.46	Blaine Tech
	7/24/2014	77.48	38.27	32.82	5.45	43.57	Blaine Tech
	8/1/2014	77.48	37	32.55	4.45	44.04	Blaine Tech
	8/8/2014	77.48	36.97	32.51	4.46	44.08	Blaine Tech
	8/13/2014	77.48	36.82	32.54	4.28	44.08	Blaine Tech
	8/19/2014	77.48	36.92	32.55	4.37	44.06	Blaine Tech
	8/29/2014	77.48	36.92	32.51	4.41	44.09	Blaine Tech
	9/5/2014	77.48	36.97	32.55	4.42	44.05	Blaine Tech
	9/11/2014	77.48	37.99	32.57	5.42	43.83	Blaine Tech
	9/18/2014	77.48	36.89	32.6	4.29	44.02	Blaine Tech
	9/26/2014	77.48	36.86	32.58	4.28	44.04	Blaine Tech
	10/1/2014	77.48	36.64	32.61	4.03	44.06	Blaine Tech
	10/6/2014	77.48	36.93	32.92	4.01	43.76	Blaine Tech

TABLE 7

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SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/14/2014	77.48	36.92	32.88	4.04	43.79	Blaine Tech
	10/23/2014	77.48	37	32.9	4.1	43.76	Blaine Tech
	10/27/2014	77.48	36.82	32.91	3.91	43.79	Blaine Tech
	11/3/2014	77.48	37.01	32.99	4.02	43.69	Blaine Tech
	11/10/2014	77.48	37.33	33.95	3.38	42.85	Blaine Tech
	11/18/2014	77.48	36.96	33.01	3.95	43.68	Blaine Tech
	11/25/2014	77.48	36.91	33.55	3.36	43.26	Blaine Tech
	12/3/2014	77.48	36.87	32.99	3.88	43.71	Blaine Tech
	12/12/2014	77.48	37.36	33.25	4.11	43.41	Blaine Tech
	12/19/2014	77.48	37.75	33.31	4.44	43.28	Blaine Tech
	3/10/2015	77.48	36.25	---	---	41.23	KMEP
GMW-25	11/12/2007	74.29	27.30	27.25	0.05	47.03	Stantec
	8/12/2008	74.29	27.81	---	---	46.48	Envent
	10/17/2008	74.29	28.26	---	---	46.03	Envent
	12/18/2008	74.29	29.01	---	---	45.28	Envent
	1/15/2009	74.29	28.62	---	---	45.67	Envent
	3/24/2009	74.29	28.79	---	---	45.50	Envent
	4/21/2009	74.29	28.35	---	---	45.94	Envent
	7/21/2009	74.29	29.80	---	---	44.49	Envent
	10/19/2009	74.29	30.28	---	---	44.01	Blaine Tech
	6/22/2010	74.29	31.64	---	---	42.65	Blaine Tech
	10/4/2010	74.29	29.25	---	---	45.04	Blaine Tech
	4/11/2011	74.29	26.21	---	---	48.08	Blaine Tech
	10/10/2011	74.29	30.02	---	---	44.27	Blaine Tech
	4/16/2012	78.14	30.31	---	---	47.83	Blaine Tech
	10/15/2012	78.14	31.88	---	---	46.26	Blaine Tech
	4/8/2013	78.14	32.11	---	---	46.03	Blaine Tech
	10/7/2013	78.14	33.23	33.10	0.13	45.01	Blaine Tech
	4/14/2014	78.14	37.4	33	4.4	44.13	Blaine Tech
	5/5/2014	78.14	37.51	33.06	4.45	44.06	Nieto & Sons
	5/12/2014	78.14	34.97	33.73	1.24	44.12	Nieto & Sons
	5/20/2014	78.14	36.75	34.3	2.45	43.28	Nieto & Sons
	5/27/2014	78.14	34.64	34.44	0.2	43.65	Nieto & Sons
	6/4/2014	78.14	35	---	---	43.14	Nieto & Sons
	6/10/2014	78.14	36.67	34.18	2.49	43.39	Nieto & Sons
	7/3/2014	78.14	34.21	---	---	43.93	Nieto & Sons
	7/24/2014	78.14	34.29	---	---	43.85	Blaine Tech
	8/1/2014	78.14	35.02	33.99	1.03	43.91	Blaine Tech
	8/8/2014	78.14	34.54	34.06	0.48	43.97	Blaine Tech
	8/14/2014	78.14	34.48	34.06	0.42	43.98	Blaine Tech
	8/19/2014	78.14	34.51	34.07	0.44	43.97	Blaine Tech
	8/29/2014	78.14	34.65	33.96	0.69	44.02	Blaine Tech
	9/18/2014	78.14	35.21	34.01	1.2	43.85	Blaine Tech
	9/26/2014	78.14	34.87	34.06	0.81	43.89	Blaine Tech
	10/1/2014	78.14	34.92	33.98	0.94	43.94	Blaine Tech
	10/6/2014	78.14	34.93	33.99	0.94	43.93	Blaine Tech
	10/14/2014	78.14	35.1	33.91	1.19	43.96	Blaine Tech
	10/23/2014	78.14	35.34	33.91	1.43	43.90	Blaine Tech
	10/27/2014	78.14	34.78	33.99	0.79	43.97	Blaine Tech
	11/3/2014	78.14	34.92	33.98	0.94	43.94	Blaine Tech
	11/10/2014	78.14	35.12	34.02	1.1	43.87	Blaine Tech
	11/18/2014	78.14	34.9	34.11	0.79	43.85	Blaine Tech
	11/25/2014	78.14	35.07	34.07	1	43.84	Blaine Tech
	12/3/2014	78.14	35.1	33.98	1.12	43.90	Blaine Tech
	12/12/2014	78.14	35.22	34.3	0.92	43.63	Blaine Tech
	12/19/2014	78.14	35.05	34.5	0.55	43.51	Blaine Tech
GMW-36	8/28/2007	74.53	24.31	---	---	50.22	Stantec
	11/12/2007	74.53	24.86	24.85	0.01	49.68	Stantec
	2/19/2008	74.53	25.50	---	---	49.03	Stantec

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Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	4/14/2008	74.53	24.61	---	---	49.92	Stantec
	8/8/2008	74.53	26.20	26.14	0.06	48.38	Envent
	10/16/2008	74.53	26.11	26.09	0.02	48.44	Envent
	12/18/2008	74.53	28.70	28.65	0.05	45.87	Envent
	1/15/2009	74.53	27.73	27.45	0.28	47.02	Envent
	2/20/2009	74.53	26.39	26.35	0.04	48.17	Envent
	2/23/2009	74.53	26.13	25.80	0.33	48.66	Blaine Tech
	3/24/2009	74.53	29.83	---	---	44.70	Envent
	4/20/2009	74.53	25.63	25.59	0.04	48.93	Blaine Tech
	7/17/2009	74.53	27.40	---	---	47.13	Envent
	7/21/2009	74.53	26.03	---	---	48.50	Envent
	7/22/2009	74.53	25.90	---	---	48.63	Blaine Tech
	10/19/2009	74.53	26.56	26.45	0.11	48.06	Blaine Tech
	2/4/2010	74.53	26.93	26.80	0.13	47.70	Kinder Morgan
	3/15/2010	74.53	26.80	---	---	47.73	Blaine Tech
	4/16/2010	74.53	26.90	---	---	47.63	Blaine Tech
	5/24/2010	74.53	25.96	25.90	0.06	48.62	Blaine Tech
	5/28/2010	74.53	25.94	25.88	0.06	48.64	Blaine Tech
	6/22/2010	74.53	25.94	25.91	0.03	48.61	Blaine Tech
	10/24/2010	74.53	26.90	---	---	47.63	Blaine Tech
	11/23/2010	74.53	27.35	27.10	0.25	47.38	Blaine Tech
	12/22/2010	74.53	28.35	26.84	1.51	47.39	Blaine Tech
	1/10/2011	74.53	29.10	27.70	1.40	46.55	Blaine Tech
	4/12/2011	74.53	26.98	25.05	1.93	49.09	Blaine Tech
	10/10/2011	74.53	25.96	---	---	48.57	Blaine Tech
	12/2/2011	74.53	26.71	---	---	47.82	Kinder Morgan
	12/21/2011	74.53	28.17	---	---	46.36	Blaine Tech
	1/9/2012	74.53	27.26	---	---	47.27	Blaine Tech
	2/23/2012	74.53	27.85	---	---	46.68	Blaine Tech
	4/16/2012	74.53	27.34	---	---	47.19	Blaine Tech
	6/15/2012	76.66	33.27	---	---	43.39	Blaine Tech
	7/9/2012	76.66	33.71	---	---	42.95	Blaine Tech
	10/15/2012	76.66	32.11	---	---	44.55	Blaine Tech
	11/29/2012	76.66	33.93	31.68	2.25	44.53	Blaine Tech
	12/26/2012	76.66	34.86	30.36	4.50	45.40	Blaine Tech
	1/14/2013	76.66	34.12	30.42	3.70	45.50	Blaine Tech
	4/10/2013	76.66	32.42	29.75	2.67	46.38	Blaine Tech
	10/7/2013	76.66	34.65	30.72	3.93	45.15	Blaine Tech
	4/25/2014	76.66	34.71	31.12	3.59	44.82	Blaine Tech
	5/20/2014	76.66	34.95	31.5	3.45	44.47	Nieto & Sons
	5/27/2014	76.66	34.53	31.29	3.24	44.72	Nieto & Sons
	6/4/2014	76.66	34.93	31.5	3.43	44.47	Nieto & Sons
	8/13/2014	76.66	34.86	31.27	3.59	44.67	Blaine Tech
	8/19/2014	76.66	34.2	31.39	2.81	44.71	Blaine Tech
	8/29/2014	76.66	34.31	31.32	2.99	44.74	Blaine Tech
	9/5/2014	76.66	34.35	31.37	2.98	44.69	Blaine Tech
	9/11/2014	76.66	35	31.23	3.77	44.68	Blaine Tech
	9/18/2014	76.66	34.42	31.5	2.92	44.58	Blaine Tech
	9/26/2014	76.66	34.15	31.48	2.67	44.65	Blaine Tech
	10/1/2014	76.66	33.51	31.61	1.9	44.67	Blaine Tech
	10/6/2014	76.66	33.29	31.63	1.66	44.70	Blaine Tech
	10/14/2014	76.66	33.48	31.55	1.93	44.72	Blaine Tech
	10/23/2014	76.66	33.64	31.57	2.07	44.68	Blaine Tech
	10/27/2014	76.66	33.02	31.79	1.23	44.62	Blaine Tech
	11/3/2014	76.66	33.75	31.57	2.18	44.65	Blaine Tech
	11/18/2014	76.66	33.17	31.75	1.42	44.63	Blaine Tech
	11/25/2014	76.66	33.13	31.86	1.27	44.55	Blaine Tech
	12/3/2014	76.66	32.93	31.75	1.18	44.67	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-11	11/12/2007	74.17	24.40	---	---	49.77	Stantec
	8/15/2008	74.17	29.30	---	---	44.87	Envent
	10/17/2008	74.17	24.45	---	---	49.72	Envent
	12/19/2008	74.17	24.85	---	---	49.32	Envent
	1/15/2009	74.17	26.87	24.38	2.49	49.29	Envent
	2/24/2009	74.17	24.31	24.21	0.10	49.94	Envent
	3/27/2009	74.17	31.08	---	---	43.09	Envent
	4/21/2009	74.17	25.36	25.34	0.02	48.83	Envent
	7/21/2009	74.17	26.18	---	---	47.99	Envent
	11/6/2009	74.17	26.33	26.18	0.15	47.96	Kinder Morgan
	10/4/2010	74.17	30.00	---	---	44.17	Blaine Tech
	4/13/2011	74.17	24.19	---	---	49.98	Blaine Tech
	10/10/2011	74.17	24.38	---	---	49.79	Blaine Tech
	10/15/2012	74.17	28.12	---	---	46.05	Blaine Tech
	9/24/2013	74.17	31.25	28.15	3.10	45.40	CH2M HILL
	10/7/2013	74.17	31.19	27.69	3.5	45.78	Blaine Tech
	4/25/2014	74.17	28.96	28.62	0.34	45.48	Blaine Tech
	9/5/2014	74.17	31.13	27.89	3.24	45.63	Blaine Tech
	9/11/2014	74.17	31.12	27.85	3.27	45.67	Blaine Tech
	9/18/2014	74.17	31.22	27.85	3.37	45.65	Blaine Tech
	9/26/2014	74.17	31.34	27.91	3.43	45.57	Blaine Tech
	10/1/2014	74.17	31.19	27.84	3.35	45.66	Blaine Tech
	10/6/2014	74.17	32.19	27.84	4.35	45.46	Blaine Tech
	10/14/2014	74.17	31.18	28.85	2.33	44.85	Blaine Tech
	10/23/2014	74.17	31.34	27.85	3.49	45.62	Blaine Tech
	10/27/2014	74.17	31.28	28.89	2.39	44.80	Blaine Tech
	11/3/2014	74.17	32.34	27.83	4.51	45.44	Blaine Tech
	11/10/2014	74.17	31.46	27.97	3.49	45.50	Blaine Tech
	11/18/2014	74.17	31.41	27.88	3.53	45.58	Blaine Tech
	11/25/2014	74.17	31.48	27.87	3.61	45.58	Blaine Tech
	12/3/2014	74.17	33.34	29.95	3.39	43.54	Blaine Tech
	12/12/2014	74.17	33.25	29.08	4.17	44.26	Blaine Tech
	12/19/2014	74.17	32.52	28.09	4.43	45.19	Blaine Tech
GMW-O-12	11/12/2007	73.49	23.13	---	---	50.36	Stantec
	4/14/2008	73.49	23.36	---	---	50.13	Stantec
	10/13/2008	73.49	24.20	---	---	49.29	Stantec
	4/20/2009	73.49	24.21	---	---	49.28	Blaine Tech
	10/19/2009	73.49	25.08	---	---	48.41	Blaine Tech
	5/24/2010	73.49	24.80	---	---	48.69	Blaine Tech
	5/28/2010	73.49	24.74	---	---	48.75	Blaine Tech
	10/4/2010	73.49	25.31	25.20	0.11	48.27	Blaine Tech
	1/10/2011	73.49	26.42	26.32	0.10	47.15	Blaine Tech
	4/11/2011	73.49	24.04	---	---	49.45	Blaine Tech
	10/10/2011	73.49	24.68	---	---	48.81	Blaine Tech
	1/9/2012	73.49	25.12	---	---	48.37	Blaine Tech
	4/16/2012	73.49	25.40	---	---	48.09	Blaine Tech
	7/9/2012	73.49	26.96	---	---	46.53	Blaine Tech
	10/15/2012	73.49	25.48	25.44	0.04	48.04	Blaine Tech
	4/8/2013	73.49	26.60	26.51	0.09	46.96	Blaine Tech
	9/24/2013	73.49	27.90	27.74	0.16	45.72	CH2M HILL
	10/7/2013	73.49	27.34	27.28	0.06	46.20	Blaine Tech
	4/14/2014	73.49	30.34	26.8	3.54	45.96	Blaine Tech
	5/6/2014	73.49	30.93	26.74	4.19	45.89	Nieto & Sons
	5/12/2014	73.49	30.81	26.82	3.99	45.85	Nieto & Sons
	5/20/2014	73.49	31.78	27.32	4.46	45.26	Nieto & Sons
	5/27/2014	73.49	33.04	26.78	6.26	45.43	Nieto & Sons
	6/4/2014	73.49	33	27.75	5.25	44.66	Nieto & Sons
	6/10/2014	73.49	34.53	26.81	7.72	45.10	Nieto & Sons

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	7/3/2014	73.49	34.27	26.94	7.33	45.05	Blaine Tech
	7/8/2014	73.49	33.87	26.87	7	45.19	Blaine Tech
	7/18/2014	73.49	33.36	27.07	6.29	45.13	Blaine Tech
	7/24/2014	73.49	33	26.98	6.02	45.28	Blaine Tech
	8/1/2014	73.49	31.8	26.83	4.97	45.64	Blaine Tech
	8/8/2014	73.49	31.26	26.91	4.35	45.69	Blaine Tech
	8/13/2014	73.49	31.18	26.88	4.3	45.73	Blaine Tech
	8/19/2014	73.49	31.01	26.86	4.15	45.78	Blaine Tech
	8/29/2014	73.49	31.03	26.89	4.14	45.75	Blaine Tech
	9/5/2014	73.49	31.19	26.88	4.31	45.73	Blaine Tech
	9/18/2014	73.49	31.3	26.82	4.48	45.75	Blaine Tech
	9/26/2014	73.49	31.33	26.89	4.44	45.69	Blaine Tech
	10/1/2014	73.49	31.21	26.85	4.36	45.75	Blaine Tech
	10/6/2014	73.49	31.2	29.84	1.36	43.37	Blaine Tech
	10/14/2014	73.49	31.14	26.86	4.28	45.75	Blaine Tech
	10/23/2014	73.49	31.3	26.85	4.45	45.73	Blaine Tech
	10/27/2014	73.49	31.28	26.9	4.38	45.69	Blaine Tech
	11/3/2014	73.49	32.3	26.84	5.46	45.53	Blaine Tech
	11/10/2014	73.49	31.45	26.91	4.54	45.65	Blaine Tech
	11/18/2014	73.49	32.34	26.9	5.44	45.47	Blaine Tech
	11/25/2014	73.49	31.57	27.87	3.7	44.86	Blaine Tech
	12/3/2014	73.49	33.87	28.81	5.06	43.64	Blaine Tech
	12/19/2014	73.49	32.78	26.97	5.81	45.33	Blaine Tech
GMW-O-15	11/12/2007	74.23	23.95	23.85	0.10	50.36	Stantec
	4/14/2008	74.23	23.64	---	---	50.59	Stantec
	8/8/2008	74.23	24.60	---	---	49.63	Envent
	8/11/2008	74.23	24.40	24.34	0.06	49.88	Stantec
	10/16/2008	74.23	24.53	---	---	49.70	Envent
	12/18/2008	74.23	24.86	---	---	49.37	Envent
	1/2/2009	74.23	24.82	---	---	49.41	Envent
	1/15/2009	74.23	26.01	---	---	48.22	Envent
	2/20/2009	74.23	24.80	---	---	49.43	Envent
	2/23/2009	74.23	24.76	24.74	0.02	49.49	Blaine Tech
	3/24/2009	74.23	25.55	---	---	48.68	Envent
	4/20/2009	74.23	24.66	24.61	0.05	49.61	Blaine Tech
	7/17/2009	74.23	25.01	---	---	49.22	Envent
	7/22/2009	74.23	24.99	24.94	0.05	49.28	Blaine Tech
	10/19/2009	74.23	25.55	25.43	0.12	48.78	Blaine Tech
	2/4/2010	74.23	25.50	25.48	0.02	48.75	Kinder Morgan
	4/16/2010	74.23	23.10	---	---	51.13	Blaine Tech
	5/24/2010	74.23	25.67	---	---	48.56	Blaine Tech
	5/28/2010	74.23	25.35	---	---	48.88	Blaine Tech
	6/22/2010	74.23	25.81	---	---	48.42	Blaine Tech
	10/4/2010	74.23	25.85	25.80	0.05	48.42	Blaine Tech
	11/23/2010	74.23	53.17	---	---	21.06	Blaine Tech
	12/22/2010	74.23	26.31	---	---	47.92	Blaine Tech
	1/10/2011	74.23	25.97	---	---	48.26	Blaine Tech
	4/12/2011	74.23	22.55	22.53	0.02	51.70	Blaine Tech
	10/10/2011	74.23	23.79	23.22	0.57	50.90	Blaine Tech
	12/2/2011	74.23	23.92	23.86	0.06	50.36	Kinder Morgan
	12/21/2011	74.23	31.13	---	---	43.10	Blaine Tech
	1/9/2012	74.23	27.67	---	---	46.56	Blaine Tech
	2/23/2012	74.23	31.18	---	---	43.05	Blaine Tech
	3/28/2012	74.23	30.30	---	---	43.93	Blaine Tech
	4/16/2012	74.23	26.56	26.51	0.05	47.71	Blaine Tech
	5/25/2012	74.23	26.64	---	---	47.59	Blaine Tech
	6/15/2012	74.23	26.93	---	---	47.30	Blaine Tech
	7/9/2012	74.23	25.47	---	---	48.76	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	9/26/2012	74.23	30.64	---	---	43.59	Blaine Tech
	10/15/2012	74.23	31.82	---	---	42.41	Blaine Tech
	12/26/2012	74.23	27.41	---	---	46.82	Blaine Tech
	1/14/2013	74.23	27.62	---	---	46.61	Blaine Tech
	4/26/2013	74.23	27.90	---	---	46.33	Kinder Morgan
	10/7/2013	74.23	29.03	28.26	0.77	45.82	Blaine Tech
	4/18/2014	74.23	28.4	28.08	0.32	46.09	Blaine Tech
	8/14/2014	74.23	32.59	28.26	4.33	45.10	Blaine Tech
	8/19/2014	74.23	32.34	28.23	4.11	45.18	Blaine Tech
	8/29/2014	74.23	31.84	28.25	3.59	45.26	Blaine Tech
	9/5/2014	74.23	31.91	28.29	3.62	45.22	Blaine Tech
	9/11/2014	74.23	32.16	28.79	3.37	44.77	Blaine Tech
	9/18/2014	74.23	32.5	28.23	4.27	45.15	Blaine Tech
	9/26/2014	74.23	32.2	28.27	3.93	45.17	Blaine Tech
	10/1/2014	74.23	31.93	28.28	3.65	45.22	Blaine Tech
	10/6/2014	74.23	31.91	28.27	3.64	45.23	Blaine Tech
	10/14/2014	74.23	31.85	28.29	3.56	45.23	Blaine Tech
	10/23/2014	74.23	32.1	28.3	3.8	45.17	Blaine Tech
	10/27/2014	74.23	30.26	no product	0	43.97	Blaine Tech
	11/18/2014	74.23	31.86	28.39	3.47	45.15	Blaine Tech
	11/25/2014	74.23	32.36	28.35	4.01	45.08	Blaine Tech
	12/3/2014	74.23	31.73	28.36	3.37	45.20	Blaine Tech
	12/12/2014	74.23	32.61	28.54	4.07	44.88	Blaine Tech
	12/19/2014	74.23	32.62	28.37	4.25	45.01	Blaine Tech
GMW-O-18	04/30/2007	74.36	24.21	---	---	50.15	Secor
	11/12/2007	74.36	22.46	---	---	51.90	Secor
	04/14/2008	74.36	24.5	---	---	49.86	Secor
	10/13/2008	74.36	25.46	---	---	48.90	Stantec
	4/20/2009	74.36	25.59	---	---	48.77	Blaine Tech
	10/19/2009	74.36	26.31	---	---	48.05	Blaine Tech
	3/15/2010	74.36	26.54	---	---	47.82	Blaine Tech
	4/16/2010	74.36	24.25	---	---	50.11	Blaine Tech
	5/24/2010	74.36	26.26	---	---	48.10	Blaine Tech
	5/28/2010	74.36	26.03	---	---	48.33	Blaine Tech
	10/4/2010	74.36	29.95	---	---	44.41	Blaine Tech
	4/12/2011	74.36	22.88	---	---	51.48	Blaine Tech
	10/10/2011	74.36	23.68	---	---	50.68	Blaine Tech
	12/2/2011	74.36	24.22	---	---	50.14	Blaine Tech
	12/21/2011	74.36	27.14	---	---	47.22	Blaine Tech
	2/23/2012	74.36	31.18	---	---	43.18	Blaine Tech
	4/16/2012	74.36	27.10	---	---	47.26	Blaine Tech
	5/25/2012	74.36	27.31	---	---	47.05	Blaine Tech
	6/15/2012	74.36	35.13	---	---	39.23	Blaine Tech
	7/9/2012	74.36	29.51	---	---	44.85	Blaine Tech
	9/26/2012	74.36	30.83	---	---	43.53	Blaine Tech
	10/15/2012	74.36	29.73	---	---	44.63	Blaine Tech
	12/26/2012	74.36	28.87	---	---	45.49	Blaine Tech
	1/14/2013	74.36	28.92	---	---	45.44	Blaine Tech
	4/10/2013	74.36	28.1	---	---	46.26	Blaine Tech
	10/7/2013	74.36	26.67	---	---	47.69	Blaine Tech
	4/18/2014	74.36	29.43	29.37	0.06	44.98	Blaine Tech
	8/14/2014	74.36	29.87	29.45	0.42	44.83	Blaine Tech
	8/19/2014	74.36	29.97	29.58	0.39	44.70	Blaine Tech
	8/29/2014	74.36	29.77	29.34	0.43	44.93	Blaine Tech
	9/11/2014	74.36	29.96	29.61	0.35	44.68	Blaine Tech
	9/18/2014	74.36	29.95	29.56	0.39	44.72	Blaine Tech
	9/26/2014	74.36	29.97	29.55	0.42	44.73	Blaine Tech
	10/1/2014	74.36	29.9	29.52	0.38	44.76	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/6/2014	74.36	29.94	29.56	0.38	44.72	Blaine Tech
	10/14/2014	74.36	29.94	29.58	0.36	44.71	Blaine Tech
	10/23/2014	74.36	30	29.62	0.38	44.66	Blaine Tech
	10/27/2014	74.36	29.95	29.52	0.43	44.75	Blaine Tech
GMW-O-20	8/15/2008	73.32	25.90	---	---	47.42	Envent
	10/17/2008	73.32	25.82	---	---	47.50	Envent
	12/19/2008	73.32	27.15	---	---	46.17	Envent
	1/15/2009	73.32	26.53	26.09	0.44	47.15	Envent
	2/24/2009	73.32	27.85	---	---	45.47	Envent
	3/20/2009	73.32	28.81	---	---	44.51	Envent
	3/27/2009	73.32	27.84	---	---	45.48	Envent
	4/21/2009	73.32	28.70	---	---	44.62	Envent
	7/21/2009	73.32	24.10	---	---	49.22	Envent
	11/9/2009	73.32	25.60	25.40	0.20	47.88	Kinder Morgan
	6/22/2010	73.32	24.76	24.66	0.10	48.64	Blaine Tech
	10/4/2010	73.32	31.20	31.10	0.10	42.20	Blaine Tech
	1/10/2011	73.32	26.62	26.48	0.14	46.81	Blaine Tech
	4/11/2011	73.32	23.82	---	---	49.50	Blaine Tech
	10/10/2011	73.32	24.05	---	---	49.27	Blaine Tech
	1/9/2012	73.32	24.68	---	---	48.64	Blaine Tech
	4/16/2012	73.32	26.18	---	---	47.14	Blaine Tech
	7/9/2012	73.32	32.92	---	---	40.40	Blaine Tech
	10/15/2012	73.32	32.97	32.95	0.02	40.37	Blaine Tech
	1/14/2013	73.32	32.98	32.93	0.05	40.38	Blaine Tech
	4/8/2013	73.32	29.63	26.46	3.17	46.27	Blaine Tech
	9/24/2013	73.32	31.10	27.20	3.90	45.40	CH2M HILL
	10/7/2013	73.32	32.09	27.06	5.03	45.33	Blaine Tech
	4/25/2014	73.32	28.48	28.4	0.08	44.91	Blaine Tech
	9/18/2014	73.32	30.71	27.72	2.99	45.05	Blaine Tech
	9/26/2014	73.32	30.87	27.75	3.12	44.99	Blaine Tech
	10/1/2014	73.32	30.52	27.65	2.87	45.14	Blaine Tech
	10/6/2014	73.32	30.5	27.66	2.84	45.13	Blaine Tech
	10/14/2014	73.32	30.63	27.62	3.01	45.14	Blaine Tech
	10/23/2014	73.32	30.8	27.7	3.1	45.05	Blaine Tech
	10/27/2014	73.32	30.7	27.76	2.94	45.02	Blaine Tech
	11/3/2014	73.32	30.81	27.62	3.19	45.11	Blaine Tech
	11/10/2014	73.32	30.94	27.75	3.19	44.98	Blaine Tech
	11/18/2014	73.32	30.91	27.65	3.26	45.07	Blaine Tech
	11/25/2014	73.32	30.95	27.65	3.3	45.06	Blaine Tech
	12/3/2014	73.32	32.56	27.83	4.73	44.61	Blaine Tech
	12/19/2014	73.32	31.72	27.93	3.79	44.69	Blaine Tech
GMW-O-21	12/28/2007	71.43	27.67	---	---	43.76	Geomatrix
	10/17/2008	71.43	26.00	---	---	45.43	Envent
	12/19/2008	71.43	24.82	---	---	46.61	Envent
	3/27/2009	71.43	26.41	---	---	45.02	Envent
	7/21/2009	71.43	24.88	---	---	46.55	Envent
	11/9/2009	71.43	25.02	---	---	46.41	Kinder Morgan
	10/4/2010	71.43	25.40	---	---	46.03	Blaine Tech
	4/13/2011	71.43	23.72	---	---	47.71	Blaine Tech
	10/10/2011	71.43	24.65	---	---	46.78	Blaine Tech
	10/15/2012	71.43	32.50	---	---	38.93	Blaine Tech
	9/25/2013	71.43	29.25	---	---	42.18	CH2M HILL
	4/14/2014	71.43	28.65	28.61	0.04	42.81	Blaine Tech
	9/5/2014	71.43	29.61	28.78	0.83	42.48	Blaine Tech
	9/26/2014	71.43	29.85	28.77	1.08	42.44	Blaine Tech
	10/1/2014	71.43	29.79	28.64	1.15	42.56	Blaine Tech
	10/6/2014	71.43	29.4	28.72	0.68	42.57	Blaine Tech
	10/27/2014	71.43	29.75	28.93	0.82	42.34	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	11/10/2014	71.43	29.98	28.95	1.03	42.27	Blaine Tech
	11/18/2014	71.43	30.05	28.92	1.13	42.28	Blaine Tech
	11/25/2014	71.43	29.73	28.85	0.88	42.40	Blaine Tech
	12/12/2014	71.43	30.61	29.02	1.59	42.09	Blaine Tech
	12/19/2014	71.43	30.62	29.04	1.58	42.07	Blaine Tech
GMW-O-23	8/14/2007	73.63	23.33	---	---	50.30	Geomatrix
	8/21/2007	73.63	23.31	---	---	50.32	Geomatrix
	8/28/2007	73.63	23.00	---	---	50.63	Stantec
	9/11/2007	73.63	23.42	---	---	50.21	Geomatrix
	10/5/2007	73.63	27.79	---	---	45.84	Geomatrix
	11/2/2007	73.63	25.15	---	---	48.48	Geomatrix
	11/13/2007	73.63	23.90	---	---	49.73	Stantec
	12/28/2007	73.63	24.91	---	---	48.72	Geomatrix
	8/15/2008	73.63	26.28	---	---	47.35	Envent
	10/17/2008	73.63	27.16	---	---	46.47	Envent
	12/19/2008	73.63	27.60	---	---	46.03	Envent
	1/15/2009	73.63	27.54	---	---	46.09	Envent
	2/24/2009	73.63	26.19	---	---	47.44	Envent
	3/27/2009	73.63	23.74	---	---	49.89	Envent
	4/21/2009	73.63	27.30	---	---	46.33	Envent
	11/9/2009	73.63	27.50	---	---	46.13	Kinder Morgan
	6/22/2010	73.63	32.10	---	---	41.53	Blaine Tech
	10/4/2010	73.63	25.92	---	---	47.71	Blaine Tech
	1/10/2011	73.63	27.45	---	---	46.18	Blaine Tech
	4/11/2011	73.63	25.03	---	---	48.60	Blaine Tech
	10/10/2011	73.63	25.25	---	---	48.38	Blaine Tech
	1/9/2012	73.63	25.91	---	---	47.72	Blaine Tech
	4/16/2012	73.63	27.38	---	---	46.25	Blaine Tech
	7/9/2012	73.63	27.41	---	---	46.22	Blaine Tech
	10/15/2012	73.63	26.48	---	---	47.15	Blaine Tech
	1/14/2013	73.63	29.35	---	---	44.28	Blaine Tech
	4/8/2013	73.63	29.81	27.74	2.07	45.48	Blaine Tech
	9/23/2013	73.63	29.90	---	---	43.73	CH2M HILL
	10/7/2013	73.63	32.86	28.3	4.56	44.42	Blaine Tech
	4/25/2014	73.63	29.81	29.66	0.15	43.94	Blaine Tech
	9/5/2014	73.63	32.57	28.76	3.81	44.11	Blaine Tech
	9/11/2014	73.63	32.94	28.63	4.31	44.14	Blaine Tech
	9/18/2014	73.63	32.8	28.65	4.15	44.15	Blaine Tech
	9/26/2014	73.63	32.87	28.7	4.17	44.10	Blaine Tech
	10/1/2014	73.63	32.56	28.75	3.81	44.12	Blaine Tech
	10/6/2014	73.63	32.5	28.73	3.77	44.15	Blaine Tech
	10/14/2014	73.63	32.75	28.2	4.55	44.52	Blaine Tech
	10/23/2014	73.63	32.8	28.69	4.11	44.12	Blaine Tech
	10/27/2014	73.63	32.51	28.8	3.71	44.09	Blaine Tech
	11/3/2014	73.63	32.82	29.68	3.14	43.32	Blaine Tech
	11/10/2014	73.63	32.8	28.78	4.02	44.05	Blaine Tech
	11/18/2014	73.63	32.78	29.78	3.00	43.25	Blaine Tech
	11/25/2014	73.63	32.64	28.78	3.86	44.08	Blaine Tech
	12/3/2014	73.63	33.25	28.94	4.31	43.83	Blaine Tech
	12/12/2014	73.63	32.58	29.33	3.25	43.65	Blaine Tech
	12/19/2014	73.63	32.71	29.37	3.34	43.59	Blaine Tech
	3/17/2015	73.63	30.40	30.00	0.40	43.55	KMEP
GMW-SF-9	4/21/2009	73.00	24.19	---	---	48.81	Envent
	5/24/2010	73.00	28.31	---	---	44.69	Blaine Tech
	5/28/2010	73.00	28.37	---	---	44.63	Blaine Tech
	10/4/2010	73.00	25.28	---	---	47.72	Blaine Tech
	4/11/2011	73.00	23.90	---	---	49.10	Blaine Tech
	10/10/2011	73.00	24.70	---	---	48.30	Blaine Tech
	4/16/2012	73.05	26.99	---	---	46.06	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	10/15/2012	73.05	34.21	---	---	38.84	Blaine Tech
	4/10/2013	73.05	27.37	---	---	45.68	Blaine Tech
	8/14/2014	73.05	29.35	28.37	0.98	44.48	Blaine Tech
	8/19/2014	73.05	28.46	28.44	0.02	44.61	Blaine Tech
	8/29/2014	73.05	29.32	28.31	1.01	44.54	Blaine Tech
	9/5/2014	73.05	29.33	28.29	1.04	44.55	Blaine Tech
	9/11/2014	73.05	29.49	28.47	1.02	44.38	Blaine Tech
	9/18/2014	73.05	28.95	28.91	0.04	44.13	Blaine Tech
	9/26/2014	73.05	28.93	28.59	0.34	44.39	Blaine Tech
MW-SF-10	4/21/2009	75.77	27.1	---	---	48.67	Envent
	10/4/2010	75.77	28.03	---	---	47.74	Blaine Tech
	4/11/2011	75.77	26.80	---	---	48.97	Blaine Tech
	10/10/2011	75.77	27.60	---	---	48.17	Blaine Tech
	4/16/2012	75.77	28.81	---	---	46.96	Blaine Tech
	10/15/2012	75.77	29.88	---	---	45.89	Blaine Tech
	4/8/2013	75.77	Dry	---	---	---	Blaine Tech
	8/14/2014	75.77	31.50	---	---	44.27	Blaine Tech
	10/1/2014	75.77	28.83	28.53	0.3	47.18	Blaine Tech
	10/6/2014	75.77	28.53	28.49	0.04	47.27	Blaine Tech
	10/27/2014	75.77	Dry	---	---	---	Blaine Tech
GWR-3	11/12/2007	74.93	27.90	---	---	47.03	Stantec
	10/17/2008	74.93	29.88	---	---	45.05	Envent
	12/17/2008	74.93	19.71	---	---	55.22	Envent
	1/15/2009	74.93	29.27	29.26	0.26	45.88	Envent
	3/27/2009	74.93	27.18	---	---	47.75	Envent
	4/21/2009	74.93	29.97	---	---	44.96	Envent
	7/21/2009	74.93	28.77	---	---	46.16	Envent
	10/4/2010	74.93	30.67	---	---	44.26	Blaine Tech
	4/11/2011	74.93	29.94	---	---	44.99	Blaine Tech
	10/10/2011	74.93	29.22	---	---	45.71	Blaine Tech
	4/16/2012	77.60	29.56	---	---	48.04	Blaine Tech
	10/15/2012	77.60	31.21	---	---	46.39	Blaine Tech
	4/8/2013	77.60	29.21	29.18	0.03	48.41	Blaine Tech
	10/7/2013	77.60	36.2	31.67	4.53	45.16	Blaine Tech
	4/14/2014	77.6	38.8	32.23	6.57	44.25	Blaine Tech
	5/5/2014	77.6	38.81	32.31	6.5	44.19	Nieto & Sons
	5/12/2014	77.6	36.34	32.77	3.57	44.22	Nieto & Sons
	5/27/2014	77.6	36.11	33.2	2.91	43.91	Nieto & Sons
	6/4/2014	77.6	34.57	31.61	2.96	45.49	Nieto & Sons
	8/8/2014	77.6	37.92	33.38	4.54	43.45	Blaine Tech
	8/13/2014	77.6	35.38	33.18	2.2	44.05	Blaine Tech
	8/19/2014	77.6	35.28	33.25	2.03	44.00	Blaine Tech
	8/29/2014	77.6	35.72	33.12	2.6	44.04	Blaine Tech
	9/5/2014	77.6	35.68	33.19	2.49	43.99	Blaine Tech
	9/11/2014	77.6	36.05	33.04	3.01	44.05	Blaine Tech
	9/18/2014	77.6	35.34	33.27	2.07	43.98	Blaine Tech
	9/26/2014	77.6	35.25	33.24	2.01	44.02	Blaine Tech
	10/1/2014	77.6	36.44	34.01	2.43	43.18	Blaine Tech
	10/6/2014	77.6	34.71	33.33	1.38	44.04	Blaine Tech
	10/14/2014	77.6	35.15	33.2	1.95	44.07	Blaine Tech
	10/23/2014	77.6	35.36	33.2	2.16	44.03	Blaine Tech
	10/27/2014	77.6	34.68	33.49	1.19	43.91	Blaine Tech
	11/3/2014	77.6	35.43	33.18	2.25	44.04	Blaine Tech
	11/10/2014	77.6	35.02	33.32	1.7	43.99	Blaine Tech
	11/18/2014	77.6	35.05	33.34	1.71	43.97	Blaine Tech
	11/25/2014	77.6	35.04	33.36	1.68	43.95	Blaine Tech
	12/3/2014	77.6	34.95	33.34	1.61	43.99	Blaine Tech
	12/12/2014	77.6	35.11	33.64	1.47	43.71	Blaine Tech
	12/19/2014	77.6	35.55	33.67	1.88	43.61	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-18 (MID)	04/30/2007	75.67	29.77	---	---	45.90	Secor
	11/12/2007	75.67	30.23	---	---	45.44	Secor
	04/14/2008	75.67	30.45	---	---	45.22	Secor
	10/13/2008	75.67	31.15	---	---	44.52	Stantec
	4/20/2009	75.67	31.49	---	---	44.18	Blaine Tech
	10/19/2009	75.67	32.62	---	---	43.05	Blaine Tech
	5/24/2010	75.67	32.26	---	---	43.41	Blaine Tech
	5/28/2010	75.67	32.17	---	---	43.50	Blaine Tech
	10/4/2010	75.67	32.30	---	---	43.37	Blaine Tech
	4/11/2011	75.67	31.28	---	---	44.39	Blaine Tech
	10/10/2011	75.67	31.51	---	---	44.16	Blaine Tech
	4/16/2012	75.67	31.75	---	---	43.92	Blaine Tech
	10/15/2012	75.67	33.41	---	---	42.26	Blaine Tech
	4/8/2013	75.67	30.68	---	---	44.99	Blaine Tech
	10/7/2013	75.67	35.33	---	---	40.34	Blaine Tech
	4/14/2014	75.67	35.4	---	---	40.27	Blaine Tech
	10/27/2014	75.67	35.81	---	---	39.86	Blaine Tech
MW-O-1	8/14/2007	75.48	25.31	23.78	1.53	51.39	Geomatrix
	8/21/2007	75.48	23.84	23.58	0.26	51.85	Geomatrix
	8/28/2007	75.48	23.07	23.06	0.01	52.42	Stantec
	9/11/2007	75.48	23.86	23.48	0.38	51.92	Geomatrix
	10/5/2007	75.48	24.67	---	---	50.81	Geomatrix
	11/2/2007	75.48	24.25	---	---	51.23	Geomatrix
	11/12/2007	75.48	24.27	24.25	0.02	51.23	Stantec
	12/28/2007	75.48	25.54	25.51	0.03	49.96	Geomatrix
	8/19/2008	75.48	25.18	25.13	0.05	50.34	Envent
	10/17/2008	75.48	25.30	---	---	50.18	Envent
	12/19/2008	75.48	26.31	---	---	49.17	Envent
	1/15/2009	75.48	25.84	---	---	49.64	Envent
	4/21/2009	75.48	25.41	---	---	50.07	Envent
	10/19/2009	75.48	26.30	---	---	49.18	Blaine Tech
	10/4/2010	75.48	26.90	---	---	48.58	Blaine Tech
	4/11/2011	75.48	25.59	---	---	49.89	Blaine Tech
	10/10/2011	75.48	26.52	---	---	48.96	Blaine Tech
	4/16/2012	75.48	27.25	---	---	48.23	Blaine Tech
	10/15/2012	75.48	28.94	---	---	46.54	Blaine Tech
	4/8/2013	75.48	28.81	---	---	46.67	Blaine Tech
	10/7/2013	75.48	29.21	---	---	46.27	Blaine Tech
	4/14/2014	75.48	29.82	---	---	45.66	Blaine Tech
	10/27/2014	75.48	29.92	---	---	45.56	Blaine Tech
MW-O-2	11/12/2007	71.90	23.10	---	---	48.80	Stantec
	10/17/2008	71.90	24.85	---	---	47.05	Envent
	12/19/2008	71.90	25.51	---	---	46.39	Envent
	3/27/2009	71.90	25.22	---	---	46.68	Envent
	7/21/2009	71.90	23.63	---	---	48.27	Envent
	11/9/2009	71.90	25.39	---	---	46.51	Kinder Morgan
	10/4/2010	71.90	26.05	---	---	45.85	Blaine Tech
	4/13/2011	71.90	23.31	---	---	48.59	Blaine Tech
	10/10/2011	71.90	27.53	---	---	44.37	Blaine Tech
	1/9/2012	71.90	28.13	---	---	43.77	Blaine Tech
	7/9/2012	71.90	26.53	---	---	45.37	Blaine Tech
	10/15/2012	71.90	26.89	---	---	45.01	Blaine Tech
	1/14/2013	71.90	26.93	---	---	44.97	Blaine Tech
	6/6/2013	71.90	28.99	---	---	42.91	Blaine Tech
	10/7/2013	71.9	29.06	---	---	42.84	Blaine Tech
	4/14/2014	71.9	29.36	---	---	42.54	Blaine Tech
	10/27/2014	71.9	29.81	---	---	42.09	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-1	8/28/2007	78.93	27.94	---	---	50.99	Stantec
	11/12/2007	78.93	28.76	---	---	50.17	Stantec
	2/19/2008	78.93	29.50	---	---	49.43	Stantec
	4/14/2008	78.93	29.16	---	---	49.77	Stantec
	8/11/2008	78.93	29.75	---	---	49.18	Stantec
	10/13/2008	78.93	29.86	---	---	49.07	Stantec
	2/23/2009	78.93	30.00	---	---	48.93	Blaine Tech
	4/20/2009	78.93	29.97	---	---	48.96	Blaine Tech
	7/22/2009	78.93	30.98	---	---	47.95	Blaine Tech
	10/19/2009	78.93	31.11	---	---	47.82	Blaine Tech
	3/15/2010	78.93	31.74	---	---	47.19	Blaine Tech
	5/24/2010	78.93	30.79	---	---	48.14	Blaine Tech
	5/28/2010	78.93	30.57	---	---	48.36	Blaine Tech
	6/22/2010	78.93	30.84	---	---	48.09	Blaine Tech
	7/12/2010	78.93	30.51	---	---	48.42	Blaine Tech
	10/4/2010	78.93	30.88	---	---	48.05	Blaine Tech
	1/10/2011	78.93	32.51	---	---	46.42	Blaine Tech
	4/11/2011	78.93	29.87	---	---	49.06	Blaine Tech
	7/11/2011	78.93	29.84	---	---	49.09	Blaine Tech
	10/10/2011	78.93	29.60	---	---	49.33	Blaine Tech
	1/9/2012	78.93	31.25	---	---	47.68	Blaine Tech
	4/16/2012	78.93	32.59	---	---	46.34	Blaine Tech
	7/9/2012	78.93	31.24	---	---	47.69	Blaine Tech
	10/15/2012	78.93	32.23	---	---	46.70	Blaine Tech
	1/14/2013	78.93	33.88	---	---	45.05	Blaine Tech
	4/8/2013	78.93	33.38	---	---	45.55	Blaine Tech
	10/7/2013	78.93	37.14	31.72	5.42	46.13	Blaine Tech
	4/14/2014	78.93	37.4	32.69	4.71	45.30	Blaine Tech
	5/6/2014	78.93	39.99	32.82	7.17	44.68	Nieto & Sons
	5/12/2014	78.93	37.31	33.55	3.76	44.63	Nieto & Sons
	5/20/2014	78.93	37.1	34.6	2.5	43.83	Nieto & Sons
	5/27/2014	78.93	36.62	34.3	2.32	44.17	Nieto & Sons
	6/4/2014	78.93	35.98	35.27	0.71	43.52	Nieto & Sons
	6/10/2014	78.93	36.91	34.48	2.43	43.96	Nieto & Sons
	7/3/2014	78.93	36.72	34.71	2.01	43.82	Nieto & Sons
	7/8/2014	78.93	36.6	34.45	2.15	44.05	Blaine Tech
	7/18/2014	78.93	35.18	34.77	0.41	44.08	Blaine Tech
	7/24/2014	78.93	35.3	34.62	0.68	44.17	Blaine Tech
	8/1/2014	78.93	34.74	34.44	0.3	44.43	Blaine Tech
	8/14/2014	78.93	34.75	34.41	0.34	44.45	Blaine Tech
	8/19/2014	78.93	34.66	34.37	0.29	44.50	Blaine Tech
	8/29/2014	78.93	35.65	35.38	0.27	43.50	Blaine Tech
	9/18/2014	78.93	34.85	34.49	0.36	44.37	Blaine Tech
	9/26/2014	78.93	34.78	34.45	0.33	44.41	Blaine Tech
	10/1/2014	78.93	34.77	34.41	0.36	44.45	Blaine Tech
	10/6/2014	78.93	34.78	34.42	0.36	44.44	Blaine Tech
	10/14/2014	78.93	34.65	34.41	0.24	44.47	Blaine Tech
	10/23/2014	78.93	34.84	34.45	0.39	44.40	Blaine Tech
	10/27/2014	78.93	34.8	34.43	0.37	44.43	Blaine Tech
	11/10/2014	78.93	34.91	34.51	0.4	44.34	Blaine Tech
	11/18/2014	78.93	34.8	34.43	0.37	44.43	Blaine Tech
	11/25/2014	78.93	34.53	34.51	0.02	44.42	Blaine Tech
	12/12/2014	78.93	35.18	34.78	0.4	44.07	Blaine Tech
	12/19/2014	78.93	35.34	34.88	0.46	43.96	Blaine Tech
MW-SF-2	11/12/2007	78.53	29.18	28.71	0.47	49.73	Stantec
	8/12/2008	78.53	31.11	---	---	47.42	Envent
	10/17/2008	78.53	31.55	31.50	0.05	47.02	Envent
	12/18/2008	78.53	32.75	32.55	0.20	45.94	Envent
	1/15/2009	78.53	30.84	30.57	0.27	47.91	Envent

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SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	3/24/2009	78.53	28.85	---	---	49.68	Envent
	4/21/2009	78.53	29.98	---	---	48.55	Envent
	7/21/2009	78.53	29.85	---	---	48.68	Envent
	12/9/2009	78.53	31.45	---	---	47.08	Kinder Morgan
	10/4/2010	78.53	30.96	30.75	0.21	47.74	Blaine Tech
	1/10/2011	78.53	32.62	32.50	0.12	46.01	Blaine Tech
	4/11/2011	78.53	29.83	---	---	48.70	Blaine Tech
	10/10/2011	78.53	29.82	---	---	48.71	Blaine Tech
	1/9/2012	78.53	30.52	---	---	48.01	Blaine Tech
	4/16/2012	78.53	31.28	---	---	47.25	Blaine Tech
	7/9/2012	78.53	33.18	---	---	45.35	Blaine Tech
	10/15/2012	78.53	32.11	---	---	46.42	Blaine Tech
	1/14/2013	78.53	33.59	---	---	44.94	Blaine Tech
	4/8/2013	78.53	33.32	---	---	45.21	Blaine Tech
	10/7/2013	78.53	34.58	33.08	1.5	45.15	Blaine Tech
	4/14/2014	78.53	37.5	33.27	4.23	44.41	Blaine Tech
	5/6/2014	78.53	37.71	33.24	4.47	44.40	Nieto & Sons
	5/12/2014	78.53	37.53	33.34	4.19	44.35	Nieto & Sons
	5/20/2014	78.53	37.62	33.51	4.11	44.20	Nieto & Sons
	5/27/2014	78.53	38.24	33.77	4.47	43.87	Nieto & Sons
	6/4/2014	78.53	34.63	---	---	43.90	Nieto & Sons
	6/10/2014	78.53	38.49	34	4.49	43.63	Nieto & Sons
	8/8/2014	78.53	36.23	33.82	2.41	44.23	Blaine Tech
	8/13/2014	78.53	36.75	33.59	3.16	44.31	Blaine Tech
	8/19/2014	78.53	36.9	33.6	3.3	44.27	Blaine Tech
	8/29/2014	78.53	37.11	33.53	3.58	44.28	Blaine Tech
	9/5/2014	78.53	37.09	33.51	3.58	44.30	Blaine Tech
	9/11/2014	78.53	37.12	33.51	3.61	44.30	Blaine Tech
	9/18/2014	78.53	36.89	33.6	3.29	44.27	Blaine Tech
	9/26/2014	78.53	37.28	33.54	3.74	44.24	Blaine Tech
	10/1/2014	78.53	37.18	33.56	3.62	44.25	Blaine Tech
	10/6/2014	78.53	37.16	33.59	3.57	44.23	Blaine Tech
	10/14/2014	78.53	37.15	33.64	3.51	44.19	Blaine Tech
	10/23/2014	78.53	37.24	33.61	3.63	44.19	Blaine Tech
	10/27/2014	78.53	37.04	33.54	3.5	44.29	Blaine Tech
	11/3/2014	78.53	37.14	33.55	3.59	44.26	Blaine Tech
	11/10/2014	78.53	37.33	33.56	3.77	44.22	Blaine Tech
	11/18/2014	78.53	37.21	33.64	3.57	44.18	Blaine Tech
	11/25/2014	78.53	37.4	33.69	3.71	44.10	Blaine Tech
	12/3/2014	78.53	37.16	33.6	3.56	44.22	Blaine Tech
	12/12/2014	78.53	38.05	33.91	4.14	43.79	Blaine Tech
	12/19/2014	78.53	38.4	33.95	4.45	43.69	Blaine Tech
MW-SF-3	11/12/2007	78.12	29.34	28.28	1.06	49.63	Stantec
	8/12/2008	78.12	30.30	29.05	1.25	48.82	Envent
	10/17/2008	78.12	29.45	---	---	48.67	Envent
	12/18/2008	78.12	31.08	30.82	0.26	47.25	Envent
	1/15/2009	78.12	29.96	29.94	0.02	48.18	Envent
	3/20/2009	78.12	31.10	---	---	47.02	Envent
	3/24/2009	78.12	27.82	---	---	50.30	Envent
	4/21/2009	78.12	29.51	29.50	0.01	48.62	Envent
	7/21/2009	78.12	30.07	---	---	48.05	Envent
	11/6/2009	78.12	30.37	30.35	0.02	47.77	Kinder Morgan
	12/9/2009	78.12	30.53	---	---	47.59	Kinder Morgan
	9/3/2010	78.12	30.97	30.42	0.55	47.59	Kinder Morgan
	10/4/2010	78.12	30.88	30.30	0.58	47.70	Blaine Tech
	4/12/2011	78.12	29.44	---	---	48.68	Blaine Tech
	10/10/2011	78.12	30.75	---	---	47.37	Blaine Tech
	10/15/2012	78.12	32.47	---	---	45.65	Blaine Tech
	5/24/2013	78.12	33.35	32.51	0.84	45.44	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	9/25/2013	78.12	34.40	---	---	43.72	CH2M HILL
	11/14/2013	78.12	33.26	---	---	44.86	CH2M HILL
	4/18/2014	78.12	33.72	33.62	0.1	44.48	Blaine Tech
	8/8/2014	78.12	34.07	33.71	0.36	44.34	Blaine Tech
	10/14/2014	78.12	34.55	33.92	0.63	44.07	Blaine Tech
	10/23/2014	78.12	34.57	33.94	0.63	44.05	Blaine Tech
	10/27/2014	78.12	34.49	33.85	0.64	44.14	Blaine Tech
	11/10/2014	78.12	34.65	33.94	0.71	44.04	Blaine Tech
	11/18/2014	78.12	34.62	33.88	0.74	44.09	Blaine Tech
	11/25/2014	78.12	34.22	33.94	0.28	44.12	Blaine Tech
	12/12/2014	78.12	34.89	34.38	0.51	43.64	Blaine Tech
	12/19/2014	78.12	35.04	34.43	0.61	43.57	Blaine Tech
MW-SF-4	8/14/2007	79.38	30.34	28.38	1.96	50.60	Geomatrix
	8/28/2007	79.38	29.95	28.30	1.65	50.74	Stantec
	9/11/2007	79.38	29.98	28.43	1.55	50.63	Geomatrix
	10/5/2007	79.38	30.68	28.85	1.83	50.15	Geomatrix
	10/12/2007	79.38	30.27	29.96	0.31	49.36	Geomatrix
	10/19/2007	79.38	30.28	---	---	49.10	Geomatrix
	10/26/2007	79.38	30.52	---	---	48.86	Geomatrix
	11/2/2007	79.38	30.68	---	---	48.70	Geomatrix
	11/12/2007	79.38	29.70	29.69	0.01	49.69	Stantec
	12/21/2007	79.38	30.69	---	---	48.69	Geomatrix
	2/19/2008	79.38	30.22	---	---	49.16	Stantec
	3/21/2008	79.38	30.07	---	---	49.31	Envent
	4/14/2008	79.38	29.95	---	---	49.43	Stantec
	8/8/2008	79.38	30.51	---	---	48.87	Envent
	8/11/2008	79.38	30.57	---	---	48.81	Stantec
	10/16/2008	79.38	30.77	---	---	48.61	Envent
	1/15/2009	79.38	31.14	---	---	48.24	Envent
	2/20/2009	79.38	30.84	---	---	48.54	Envent
	2/23/2009	79.38	30.96	---	---	48.42	Blaine Tech
	4/20/2009	79.38	30.02	29.94	0.08	49.42	Blaine Tech
	4/28/2009	79.38	30.78	---	---	48.60	Envent
	7/17/2009	79.38	31.85	---	---	47.53	Envent
	7/22/2009	79.38	31.65	31.61	0.04	47.76	Blaine Tech
	10/19/2009	79.38	31.93	31.90	0.03	47.47	Blaine Tech
	3/15/2010	79.38	31.95	31.91	0.04	47.46	Blaine Tech
	5/24/2010	79.38	31.60	---	---	47.78	Blaine Tech
	5/28/2010	79.38	26.40	---	---	52.98	Blaine Tech
	6/22/2010	79.38	31.63	---	---	47.75	Blaine Tech
	7/12/2010	79.38	31.37	---	---	48.01	Blaine Tech
	10/4/2010	79.38	31.81	---	---	47.57	Blaine Tech
	1/10/2011	79.38	32.99	---	---	46.39	Blaine Tech
	4/11/2011	79.38	30.85	---	---	48.53	Blaine Tech
	7/11/2011	79.38	30.35	---	---	49.03	Blaine Tech
	1/9/2012	79.38	32.07	---	---	47.31	Blaine Tech
	4/16/2012	79.38	33.35	---	---	46.03	Blaine Tech
	7/9/2012	79.38	32.11	---	---	47.27	Blaine Tech
	10/15/2012	79.38	34.04	---	---	45.34	Blaine Tech
	1/14/2013	79.38	34.52	---	---	44.86	Blaine Tech
	4/8/2013	79.38	Dry	---	---	---	Blaine Tech
	10/7/2013	79.38	Dry	---	---	---	Blaine Tech
	4/25/2014	79.38	40.03	34.23	5.8	43.96	Blaine Tech
	5/6/2014	79.38	39.78	33.91	5.87	44.27	Nieto & Sons
	5/12/2014	79.38	37.02	34.64	2.38	44.25	Nieto & Sons
	5/20/2014	79.38	36.6	35.6	1	43.58	Nieto & Sons
	5/27/2014	79.38	36.12	35.45	0.67	43.79	Nieto & Sons
	6/4/2014	79.38	36.54	35.91	0.63	43.34	Nieto & Sons
	6/10/2014	79.38	37.02	35.38	1.64	43.66	Nieto & Sons

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	7/3/2014	79.38	36.98	35.63	1.35	43.47	Nieto & Sons
	7/8/2014	79.38	36.78	35.34	1.44	43.74	Blaine Tech
	7/18/2014	79.38	35.88	35.55	0.33	43.76	Blaine Tech
	7/24/2014	79.38	35.98	35.42	0.56	43.85	Blaine Tech
	8/1/2014	79.38	35.57	35.3	0.27	44.02	Blaine Tech
	8/14/2014	79.38	35.42	35.23	0.19	44.11	Blaine Tech
	8/19/2014	79.38	35.36	35.21	0.15	44.14	Blaine Tech
	8/29/2014	79.38	35.32	35.2	0.12	44.16	Blaine Tech
	9/18/2014	79.38	35.55	35.3	0.25	44.03	Blaine Tech
	9/26/2014	79.38	35.56	35.3	0.26	44.03	Blaine Tech
	10/1/2014	79.38	35.56	35.24	0.32	44.07	Blaine Tech
	10/6/2014	79.38	35.48	35.22	0.26	44.11	Blaine Tech
	10/14/2014	79.38	35.33	35.2	0.13	44.15	Blaine Tech
	10/23/2014	79.38	35.51	35.22	0.29	44.10	Blaine Tech
	10/27/2014	79.38	35.54	35.25	0.29	44.07	Blaine Tech
	11/18/2014	79.38	35.56	35.25	0.31	44.07	Blaine Tech
	11/25/2014	79.38	35.66	35.32	0.34	43.99	Blaine Tech
	12/12/2014	79.38	35.81	35.58	0.23	43.75	Blaine Tech
	12/19/2014	79.38	35.75	35.62	0.13	43.73	Blaine Tech
MW-SF-5	8/21/2007	79.74	28.36	---	---	51.38	Geomatrix
	8/28/2007	79.74	28.84	---	---	50.90	Stantec
	10/5/2007	79.74	29.50	---	---	50.24	Geomatrix
	11/2/2007	79.74	31.50	---	---	48.24	Geomatrix
	11/12/2007	79.74	29.93	---	---	49.81	Stantec
	12/21/2007	79.74	31.00	---	---	48.74	Geomatrix
	4/14/2008	79.74	30.20	---	---	49.54	Stantec
	8/11/2008	79.74	30.85	---	---	48.89	Stantec
	10/13/2008	79.74	30.93	---	---	48.81	Stantec
	4/20/2009	79.74	30.99	---	---	48.75	Blaine Tech
	5/24/2010	79.74	31.55	---	---	48.19	Blaine Tech
	5/28/2010	79.74	31.44	---	---	48.30	Blaine Tech
	6/22/2010	79.74	31.57	---	---	48.17	Blaine Tech
	10/4/2010	79.74	31.39	---	---	48.35	Blaine Tech
	1/10/2011	79.74	33.80	---	---	45.94	Blaine Tech
	4/11/2011	79.74	31.03	---	---	48.71	Blaine Tech
	10/10/2011	79.74	31.28	---	---	48.46	Blaine Tech
	1/9/2012	79.74	32.12	---	---	47.62	Blaine Tech
	4/16/2012	79.74	33.30	---	---	46.44	Blaine Tech
	7/9/2012	79.74	34.45	---	---	45.29	Blaine Tech
	10/15/2012	79.74	33.28	---	---	46.46	Blaine Tech
	1/14/2013	79.74	33.37	---	---	46.37	Blaine Tech
	4/8/2013	79.74	34.28	---	---	45.46	Blaine Tech
	10/7/2013	79.74	34.58	---	---	45.16	Blaine Tech
	4/14/2014	79.74	35.33	---	---	44.41	Blaine Tech
	10/27/2014	79.74	35.48	---	---	44.26	Blaine Tech
MW-SF-6	11/12/2007	76.80	27.14	---	---	49.66	Stantec
	8/12/2008	76.80	29.82	---	---	46.98	Envent
	10/17/2008	76.80	29.75	---	---	47.05	Envent
	12/18/2008	76.80	30.73	---	---	46.07	Envent
	1/15/2009	76.80	31.35	---	---	45.45	Envent
	3/24/2009	76.80	30.50	---	---	46.30	Envent
	4/21/2009	76.80	28.45	---	---	48.35	Envent
	7/21/2009	76.80	27.22	---	---	49.58	Envent
	11/6/2009	76.80	29.10	---	---	47.70	Kinder Morgan
	12/9/2009	76.80	31.35	---	---	45.45	Kinder Morgan
	10/4/2010	76.80	29.09	---	---	47.71	Blaine Tech
	1/10/2011	76.80	30.87	---	---	45.93	Blaine Tech
	4/11/2011	76.80	28.16	---	---	48.64	Blaine Tech
	10/10/2011	76.80	28.21	---	---	48.59	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	1/9/2012	76.80	29.03	---	---	47.77	Blaine Tech
	4/16/2012	76.80	29.66	---	---	47.14	Blaine Tech
	7/9/2012	76.80	31.46	---	---	45.34	Blaine Tech
	10/15/2012	76.80	31.44	---	---	45.36	Blaine Tech
	1/14/2013	76.80	31.53	---	---	45.27	Blaine Tech
	4/8/2013	76.80	30.21	28.81	1.40	47.71	Blaine Tech
	11/14/2013	76.8	31.9	---	---	44.90	Blaine Tech
	4/18/2014	76.8	33.3	32.15	1.15	44.42	Blaine Tech
	8/8/2014	76.8	34.5	33.31	1.19	43.25	Blaine Tech
	8/13/2014	76.8	32.95	32.54	0.41	44.18	Blaine Tech
	8/19/2014	76.8	32.87	32.62	0.25	44.13	Blaine Tech
	8/29/2014	76.8	32.79	32.56	0.23	44.19	Blaine Tech
	9/5/2014	76.8	32.81	32.59	0.22	44.17	Blaine Tech
	9/18/2014	76.8	32.95	32.65	0.3	44.09	Blaine Tech
	9/26/2014	76.8	32.94	32.61	0.33	44.12	Blaine Tech
	10/1/2014	76.8	32.91	32.6	0.31	44.14	Blaine Tech
	10/6/2014	76.8	32.9	32.61	0.29	44.13	Blaine Tech
	10/14/2014	76.8	33.72	33.6	0.12	43.18	Blaine Tech
	10/23/2014	76.8	34.57	33.94	0.63	42.73	Blaine Tech
	10/27/2014	76.8	32.92	32.58	0.34	44.15	Blaine Tech
	11/18/2014	76.8	32.99	32.62	0.37	44.11	Blaine Tech
	11/25/2014	76.8	32.66	32.58	0.08	44.20	Blaine Tech
	12/12/2014	76.8	33.45	33.07	0.38	43.65	Blaine Tech
	12/19/2014	76.8	33.6	33.15	0.45	43.56	Blaine Tech
MW-SF-9	8/14/2007	74.10	28.73	28.61	0.12	45.47	Geomatrix
	8/28/2007	74.10	20.55	---	---	53.55	Stantec
	8/21/2007	74.10	26.55	---	---	47.55	Geomatrix
	9/11/2007	74.10	19.40	---	---	54.70	Geomatrix
	10/5/2007	74.10	26.84	---	---	47.26	Geomatrix
	11/2/2007	74.10	22.76	---	---	51.34	Geomatrix
	11/12/2007	74.10	22.96	---	---	51.14	Stantec
	12/21/2007	74.10	24.05	---	---	50.05	Geomatrix
	4/14/2008	74.10	24.23	---	---	49.87	Stantec
	10/13/2008	74.10	24.83	---	---	49.27	Stantec
	4/20/2009	74.10	25.27	---	---	48.83	Blaine Tech
	10/19/2009	74.10	26.45	---	---	47.65	Blaine Tech
	5/24/2010	74.10	25.80	---	---	48.30	Blaine Tech
	5/28/2010	74.10	25.66	---	---	48.44	Blaine Tech
	6/22/2010	74.10	25.84	---	---	48.26	Blaine Tech
	10/4/2010	74.10	26.10	---	---	48.00	Blaine Tech
	1/10/2011	74.10	27.41	---	---	46.69	Blaine Tech
	4/11/2011	74.10	24.16	---	---	49.94	Blaine Tech
	10/10/2011	74.10	25.02	---	---	49.08	Blaine Tech
	1/9/2012	74.10	25.98	---	---	48.12	Blaine Tech
	4/16/2012	74.10	25.92	---	---	48.18	Blaine Tech
	7/9/2012	74.10	26.44	---	---	47.66	Blaine Tech
	4/8/2013	74.10	28.53	---	---	45.57	Blaine Tech
	10/7/2013	74.1	28.95	---	---	45.15	Blaine Tech
	4/25/2014	74.1	34.75	27.95	6.8	44.89	Blaine Tech
	5/5/2014	74.1	37.81	31.76	6.05	41.22	Nieto & Sons
	5/12/2014	74.1	32.32	29.11	3.21	44.40	Nieto & Sons
	5/20/2014	74.1	30.75	29.95	0.8	44.00	Nieto & Sons
	5/27/2014	74.1	38.08	32.32	5.76	40.71	Nieto & Sons
	6/4/2014	74.1	32.19	28.61	3.58	44.83	Nieto & Sons
	6/10/2014	74.1	36.27	28.85	7.42	43.88	Nieto & Sons
	7/3/2014	74.1	39.26	32.59	6.67	40.28	Nieto & Sons
	7/8/2014	74.1	36.4	28.6	7.8	44.06	Blaine Tech
	7/18/2014	74.1	31.04	29.66	1.38	44.18	Blaine Tech
	7/24/2014	74.1	31.15	29.85	1.3	44.01	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	8/1/2014	74.1	30.25	29.85	0.4	44.18	Blaine Tech
	8/14/2014	74.1	30.13	29.82	0.31	44.22	Blaine Tech
	8/19/2014	74.1	30.08	29.85	0.23	44.21	Blaine Tech
	8/29/2014	74.1	30.1	29.81	0.29	44.24	Blaine Tech
	9/5/2014	74.1	30.13	29.84	0.29	44.21	Blaine Tech
	9/11/2014	74.1	29.49	28.47	1.02	45.44	Blaine Tech
	9/18/2014	74.1	30.29	29.9	0.39	44.13	Blaine Tech
	9/26/2014	74.1	30.25	29.84	0.41	44.18	Blaine Tech
	10/1/2014	74.1	30.24	29.84	0.4	44.19	Blaine Tech
	10/6/2014	74.1	30.24	29.83	0.41	44.19	Blaine Tech
	10/14/2014	74.1	30.12	29.81	0.31	44.23	Blaine Tech
	10/23/2014	74.1	30.27	29.85	0.42	44.17	Blaine Tech
	10/27/2014	74.1	30.29	29.89	0.4	44.14	Blaine Tech
	11/18/2014	74.1	30.35	29.86	0.49	44.15	Blaine Tech
	11/25/2014	74.1	30.42	29.91	0.51	44.10	Blaine Tech
	12/12/2014	74.1	30.65	30.1	0.55	43.90	Blaine Tech
	12/19/2014	74.1	30.8	30.13	0.67	43.85	Blaine Tech
MW-SF-10	10/17/2008	76.53	27.49	---	---	49.04	Envent
	10/19/2009	76.53	28.61	---	---	47.92	Blaine Tech
	10/4/2010	76.53	28.5	28.36	0.14	48.14	Blaine Tech
	4/11/2011	76.53	27.41	27.37	0.04	49.15	Blaine Tech
	10/10/2011	76.53	27.6	---	---	48.93	Blaine Tech
	4/16/2012	76.53	28.81	---	---	47.72	Blaine Tech
	10/15/2012	76.53	29.27	---	---	47.26	Blaine Tech
	4/8/2013	76.53	Dry	---	---	---	Blaine Tech
	10/7/2013	76.53	Dry	---	---	---	Blaine Tech
	4/14/2014	76.53	Dry	---	---	---	Blaine Tech
	10/27/2014	76.53	Dry	---	---	---	Blaine Tech
MW-SF-11	8/14/2007	78.56	28.58	28.30	0.28	50.20	Geomatrix
	8/21/2007	78.56	28.76	28.63	0.13	49.90	Geomatrix
	8/28/2007	78.56	28.22	---	---	50.34	Stantec
	9/11/2007	78.56	26.90	---	---	51.66	Geomatrix
	10/5/2007	78.56	28.43	---	---	50.13	Geomatrix
	11/2/2007	78.56	29.48	29.38	0.10	49.16	Geomatrix
	11/12/2007	78.56	29.03	---	---	49.53	Stantec
	8/15/2008	78.56	30.13	---	---	48.43	Envent
	10/17/2008	78.56	30.50	---	---	48.06	Envent
	12/18/2008	78.56	29.92	---	---	48.64	Envent
	1/15/2009	78.56	30.32	---	---	48.24	Envent
	3/24/2009	78.56	31.05	---	---	47.51	Envent
	4/21/2009	78.56	30.03	---	---	48.53	Envent
	7/21/2009	78.56	30.89	---	---	47.67	Envent
	11/9/2009	78.56	31.00	---	---	47.56	Kinder Morgan
	9/3/2010	78.56	31.22	---	---	47.34	Kinder Morgan
	10/4/2010	78.56	30.94	---	---	47.62	Blaine Tech
	4/12/2011	78.56	30.82	---	---	47.74	Blaine Tech
	10/10/2011	78.56	30.10	---	---	48.46	Blaine Tech
	10/15/2012	78.56	33.28	---	---	45.28	Blaine Tech
	4/8/2013	78.56	33.11	---	---	45.45	Blaine Tech
	10/7/2013	78.56	33.91	---	---	44.65	Blaine Tech
	4/14/2014	78.56	35.2	34.95	0.25	43.56	Blaine Tech
	5/5/2014	78.56	36.52	33.71	2.81	44.29	Nieto & Sons
	5/12/2014	78.56	35.45	33.87	1.58	44.37	Nieto & Sons
	5/27/2014	78.56	35.38	34.65	0.73	43.76	Nieto & Sons
	6/4/2014	78.56	35.4	35.32	0.08	43.22	Nieto & Sons
	8/8/2014	78.56	36.22	33.11	3.11	44.83	Blaine Tech
	8/13/2014	78.56	36.22	33.47	2.75	44.54	Blaine Tech
	8/19/2014	78.56	36.46	33.94	2.52	44.12	Blaine Tech
	8/29/2014	78.56	36.68	33.83	2.85	44.16	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	9/5/2014	78.56	36.62	33.80	2.82	44.20	Blaine Tech
	9/11/2014	78.56	37.15	33.78	3.37	44.11	Blaine Tech
	9/18/2014	78.56	36.79	33.93	2.86	44.06	Blaine Tech
	9/26/2014	78.56	36.89	33.88	3.01	44.08	Blaine Tech
	10/1/2014	78.56	34.95	33.32	1.63	44.91	Blaine Tech
	10/6/2014	78.56	36.36	33.95	2.41	44.13	Blaine Tech
	10/14/2014	78.56	36.67	33.86	2.81	44.14	Blaine Tech
	10/23/2014	78.56	36.86	33.86	3	44.10	Blaine Tech
	10/27/2014	78.56	36.2	33.99	2.21	44.13	Blaine Tech
	11/3/2014	78.56	36.91	33.84	3.07	44.11	Blaine Tech
	11/18/2014	78.56	36.78	33.95	2.83	44.04	Blaine Tech
	11/25/2014	78.56	36.65	34.03	2.62	44.01	Blaine Tech
	12/3/2014	78.56	36.71	33.94	2.77	44.07	Blaine Tech
	12/12/2014	78.56	37.29	34.08	3.21	43.84	Blaine Tech
	12/19/2014	78.56	38.03	34.04	3.99	43.72	Blaine Tech
	3/17/2015	78.56	35.94	35.50	0.44	42.97	KMEP
MW-SF-12	8/14/2007	78.07	27.76	---	---	50.31	Geomatrix
	8/21/2007	78.07	27.43	---	---	50.64	Geomatrix
	8/28/2007	78.07	27.58	---	---	50.49	Stantec
	9/11/2007	78.07	27.73	---	---	50.34	Geomatrix
	10/5/2007	78.07	28.06	---	---	50.01	Geomatrix
	11/2/2007	78.07	29.59	---	---	48.48	Geomatrix
	11/12/2007	78.07	28.33	---	---	49.74	Stantec
	8/12/2008	78.07	30.02	---	---	48.05	Envent
	10/17/2008	78.07	30.42	---	---	47.65	Envent
	12/18/2008	78.07	31.55	---	---	46.52	Envent
	1/15/2009	78.07	30.11	---	---	47.96	Envent
	3/24/2009	78.07	29.41	---	---	48.66	Envent
	4/21/2009	78.07	29.52	---	---	48.55	Envent
	7/21/2009	78.07	28.58	---	---	49.49	Envent
	11/4/2009	78.07	30.36	---	---	47.71	Kinder Morgan
	2/4/2010	78.07	29.20	---	---	48.87	Kinder Morgan
	10/4/2010	78.07	30.70	---	---	47.37	Blaine Tech
	4/11/2011	78.07	29.47	---	---	48.60	Blaine Tech
	10/10/2011	78.07	26.60	---	---	51.47	Blaine Tech
	4/16/2012	78.07	31.40	---	---	46.67	Blaine Tech
	10/15/2012	78.07	32.12	---	---	45.95	Blaine Tech
	4/14/2014	78.07	38.04	32.67	5.37	44.33	Blaine Tech
	5/20/2014	78.07	37.8	32.9	4.9	44.19	Nieto & Sons
	5/27/2014	78.07	33.27	---	---	44.80	Nieto & Sons
	6/4/2014	78.07	32.78	---	---	45.29	Nieto & Sons
	6/10/2014	78.07	33.76	---	---	44.31	Nieto & Sons
	7/3/2014	78.07	---	33.58	---	---	Nieto & Sons
	7/24/2014	78.07	---	33.35	3.97	---	Blaine Tech
	8/1/2014	78.07	37.2	33.17	4.03	44.09	Blaine Tech
	9/5/2014	78.07	38.52	32.93	5.59	44.02	Blaine Tech
	9/11/2014	78.07	38.56	32.98	5.58	43.97	Blaine Tech
	9/18/2014	78.07	38.25	33.09	5.16	43.95	Blaine Tech
	9/26/2014	78.07	38.03	33.03	5.00	44.04	Blaine Tech
	10/1/2014	78.07	37.82	33.08	4.74	44.04	Blaine Tech
	10/6/2014	78.07	37.63	33.07	4.56	44.09	Blaine Tech
	10/14/2014	78.07	37.56	33.13	4.43	44.05	Blaine Tech
	10/23/2014	78.07	37.56	33.06	4.50	44.11	Blaine Tech
	10/27/2014	78.07	37.4	33.08	4.32	44.13	Blaine Tech
	11/3/2014	78.07	37.48	33.09	4.39	44.10	Blaine Tech
	11/18/2014	78.07	37.44	33.15	4.29	44.06	Blaine Tech
	11/25/2014	78.07	37.35	33.21	4.14	44.03	Blaine Tech
	12/3/2014	78.07	37.31	33.12	4.19	44.11	Blaine Tech
	12/12/2014	78.07	37.92	33.45	4.47	43.73	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	12/19/2014	78.07	38.25	33.5	4.75	43.62	Blaine Tech
	3/17/2015	78.07	36.42	34.05	2.37	43.55	KMEP
MW-SF-13	8/14/2007	73.40	22.98	---	---	50.42	Geomatrix
	8/21/2007	73.40	23.11	---	---	50.29	Geomatrix
	8/28/2007	73.40	22.85	---	---	50.55	Stantec
	9/11/2007	73.40	23.10	---	---	50.30	Geomatrix
	10/5/2007	73.40	28.11	---	---	45.29	Geomatrix
	11/2/2007	73.40	25.43	25.41	0.02	47.99	Geomatrix
	11/12/2007	73.40	23.70	---	---	49.70	Stantec
	12/21/2007	73.40	24.45	24.42	0.03	48.97	Geomatrix
	8/15/2008	73.40	27.38	24.11	3.27	48.47	Envent
	10/17/2008	73.40	27.28	24.33	2.95	48.33	Envent
	10/21/2008	73.40	27.14	24.26	2.88	48.42	Envent
	9/3/2010	73.40	27.40	25.71	1.69	47.27	Kinder Morgan
	12/17/2008	73.40	26.21	24.70	1.51	48.32	Envent
	1/15/2009	73.40	26.90	24.80	2.10	48.08	Envent
	3/27/2009	73.40	26.46	25.49	0.97	47.67	Envent
	4/21/2009	73.40	24.86	24.78	0.08	48.60	Envent
	7/21/2009	73.40	25.72	25.48	0.24	47.86	Envent
	11/6/2009	73.40	25.72	---	---	47.68	Kinder Morgan
	2/4/2010	73.40	25.43	25.30	0.13	48.07	Kinder Morgan
	10/4/2010	73.40	26.95	25.92	1.03	47.22	Blaine Tech
	4/12/2011	73.40	24.79	24.78	0.01	48.62	Blaine Tech
	10/10/2011	73.40	26.00	---	---	47.40	Blaine Tech
	4/16/2012	73.40	27.19	---	---	46.21	Blaine Tech
	10/15/2012	73.40	27.01	---	---	46.39	Blaine Tech
	4/8/2013	73.40	27.90	---	---	45.50	Blaine Tech
	11/14/2013	73.4	29.95	28.25	1.7	44.73	Blaine Tech
	4/14/2014	73.4	31.36	28.47	2.89	44.21	Blaine Tech
	5/5/2014	73.4	31.62	28.49	3.13	44.13	Nieto & Sons
	5/12/2014	73.4	30.02	28.88	1.14	44.24	Nieto & Sons
	5/20/2014	73.4	31.1	29.77	1.33	43.30	Nieto & Sons
	5/27/2014	73.4	30.17	29.48	0.69	43.75	Nieto & Sons
	6/4/2014	73.4	30.22	---	---	43.18	Nieto & Sons
	6/10/2014	73.4	30.2	29.76	0.44	43.53	Nieto & Sons
	7/3/2014	73.4	30.49	29.88	0.61	43.37	Nieto & Sons
	7/24/2014	73.4	30.5	29.54	0.96	43.62	Blaine Tech
	8/1/2014	73.4	29.82	29.25	0.57	44.01	Blaine Tech
	8/8/2014	73.4	34.07	33.71	0.36	39.60	Blaine Tech
	8/14/2014	73.4	29.96	29.13	0.83	44.06	Blaine Tech
	8/19/2014	73.4	29.91	29.15	0.76	44.06	Blaine Tech
	8/29/2014	73.4	30.15	29.02	1.13	44.10	Blaine Tech
	9/5/2014	73.4	30.19	29.08	1.11	44.04	Blaine Tech
	9/11/2014	73.4	30.66	28.91	1.75	44.05	Blaine Tech
	9/18/2014	73.4	30.41	29.15	1.26	43.94	Blaine Tech
	9/26/2014	73.4	30.18	29.14	1.04	44.00	Blaine Tech
	10/1/2014	73.4	30.38	29.05	1.33	44.02	Blaine Tech
	10/6/2014	73.4	30.1	29.12	0.98	44.04	Blaine Tech
	10/13/2014	73.4	30.28	29.07	1.21	44.03	Blaine Tech
	10/23/2014	73.4	30.72	28.95	1.77	44.01	Blaine Tech
	10/27/2014	73.4	30.21	29.06	1.15	44.05	Blaine Tech
	11/3/2014	73.4	30.62	28.93	1.69	44.05	Blaine Tech
	11/18/2014	73.4	30.54	29.11	1.43	43.93	Blaine Tech
	11/25/2014	73.4	29.48	29.14	0.34	44.18	Blaine Tech
	12/3/2014	73.4	31.02	28.93	2.09	43.95	Blaine Tech
	12/12/2014	73.4	31.05	29.4	1.65	43.59	Blaine Tech
	12/19/2014	73.4	31.11	29.4	1.71	43.57	Blaine Tech

TABLE 7

Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-14	8/14/2007	78.16	27.68	---	---	50.48	Geomatrix
	8/21/2007	78.16	27.60	---	---	50.56	Geomatrix
	8/28/2007	78.16	27.53	---	---	50.63	Stantec
	9/11/2007	78.16	27.66	---	---	50.50	Geomatrix
	10/5/2007	78.16	27.75	---	---	50.41	Geomatrix
	11/2/2007	78.16	29.83	---	---	48.33	Geomatrix
	8/15/2008	78.16	29.77	29.24	0.53	48.81	Envent
	10/17/2008	78.16	29.52	29.50	0.02	48.66	Envent
	12/18/2008	78.16	30.62	---	---	47.54	Envent
	1/15/2009	78.16	30.08	---	---	48.08	Envent
	3/24/2009	78.16	29.73	---	---	48.43	Envent
	4/21/2009	78.16	29.61	---	---	48.55	Envent
	7/21/2009	78.16	29.20	---	---	48.96	Envent
	11/6/2009	78.16	30.48	---	---	47.68	Kinder Morgan
	12/9/2009	78.16	30.68	---	---	47.48	Kinder Morgan
	6/22/2010	78.16	26.17	---	---	51.99	Blaine Tech
	10/4/2010	78.16	30.54	---	---	47.62	Blaine Tech
	4/12/2011	78.16	29.55	---	---	48.61	Blaine Tech
	10/10/2011	78.16	29.84	---	---	48.32	Blaine Tech
	10/15/2012	78.16	30.02	---	---	48.14	Blaine Tech
	4/8/2013	78.16	32.75	---	---	45.41	Blaine Tech
	9/26/2013	78.16	34.50	34.25	0.25	43.86	CH2M HILL
	11/14/2013	78.16	33.57	33.19	0.38	44.89	Blaine Tech
	4/14/2014	78.16	34.81	33.56	1.25	44.35	Blaine Tech
	8/8/2014	78.16	34.24	33.98	0.26	44.13	Blaine Tech
	10/14/2014	78.16	34.36	33.8	0.56	44.25	Blaine Tech
	10/23/2014	78.16	34.49	34.43	0.06	43.72	Blaine Tech
	10/27/2014	78.16	34.4	33.97	0.43	44.10	Blaine Tech
	11/18/2014	78.16	34.27	34.07	0.2	44.05	Blaine Tech
MW-SF-15	8/14/2007	78.27	27.78	27.75	0.03	50.51	Geomatrix
	8/21/2007	78.27	27.69	27.65	0.04	50.61	Geomatrix
	8/28/2007	78.27	27.65	27.61	0.04	50.65	Stantec
	9/11/2007	78.27	27.62	---	---	50.65	Geomatrix
	10/5/2007	78.27	28.15	---	---	50.12	Geomatrix
	11/2/2007	78.27	30.45	30.20	0.25	48.02	Geomatrix
	11/12/2007	78.27	28.75	---	---	49.52	Stantec
	8/15/2008	78.27	30.12	29.35	0.77	48.77	Envent
	10/17/2008	78.27	30.80	29.44	1.36	48.56	Envent
	10/21/2008	78.27	30.80	29.31	1.49	48.66	Envent
	12/18/2008	78.27	32.11	30.56	1.55	47.40	Envent
	1/15/2009	78.27	31.75	29.70	2.05	48.16	Envent
	3/24/2009	78.27	30.32	29.93	0.39	48.26	Envent
	4/21/2009	78.27	29.96	29.60	0.36	48.60	Envent
	7/21/2009	78.27	30.45	---	---	47.82	Envent
	11/4/2009	78.27	31.10	30.45	0.36	47.46	Kinder Morgan
	12/9/2009	78.27	30.87	---	---	47.40	Kinder Morgan
	10/4/2010	78.27	30.66	30.65	0.01	47.62	Blaine Tech
	4/12/2011	78.27	30.50	29.40	1.1	48.65	Blaine Tech
	10/10/2011	78.27	29.60	---	---	48.67	Blaine Tech
	12/2/2011	78.27	31.40	30.05	1.4	47.95	Blaine Tech
	4/16/2012	78.27	32.48	32.39	0.1	45.86	Blaine Tech
	10/15/2012	78.27	33.15	---	---	45.12	Blaine Tech
	4/8/2013	78.27	33.90	---	---	44.37	Blaine Tech
	11/14/2013	78.27	33.41	33.38	0.03	44.88	Blaine Tech
	4/18/2014	78.27	33.85	---	---	44.42	Blaine Tech
	8/8/2014	78.27	34.87	33.96	0.91	44.13	Blaine Tech
	8/13/2014	78.27	34.89	33.95	0.94	44.13	Blaine Tech
	8/19/2014	78.27	34.9	33.94	0.96	44.14	Blaine Tech

TABLE 7

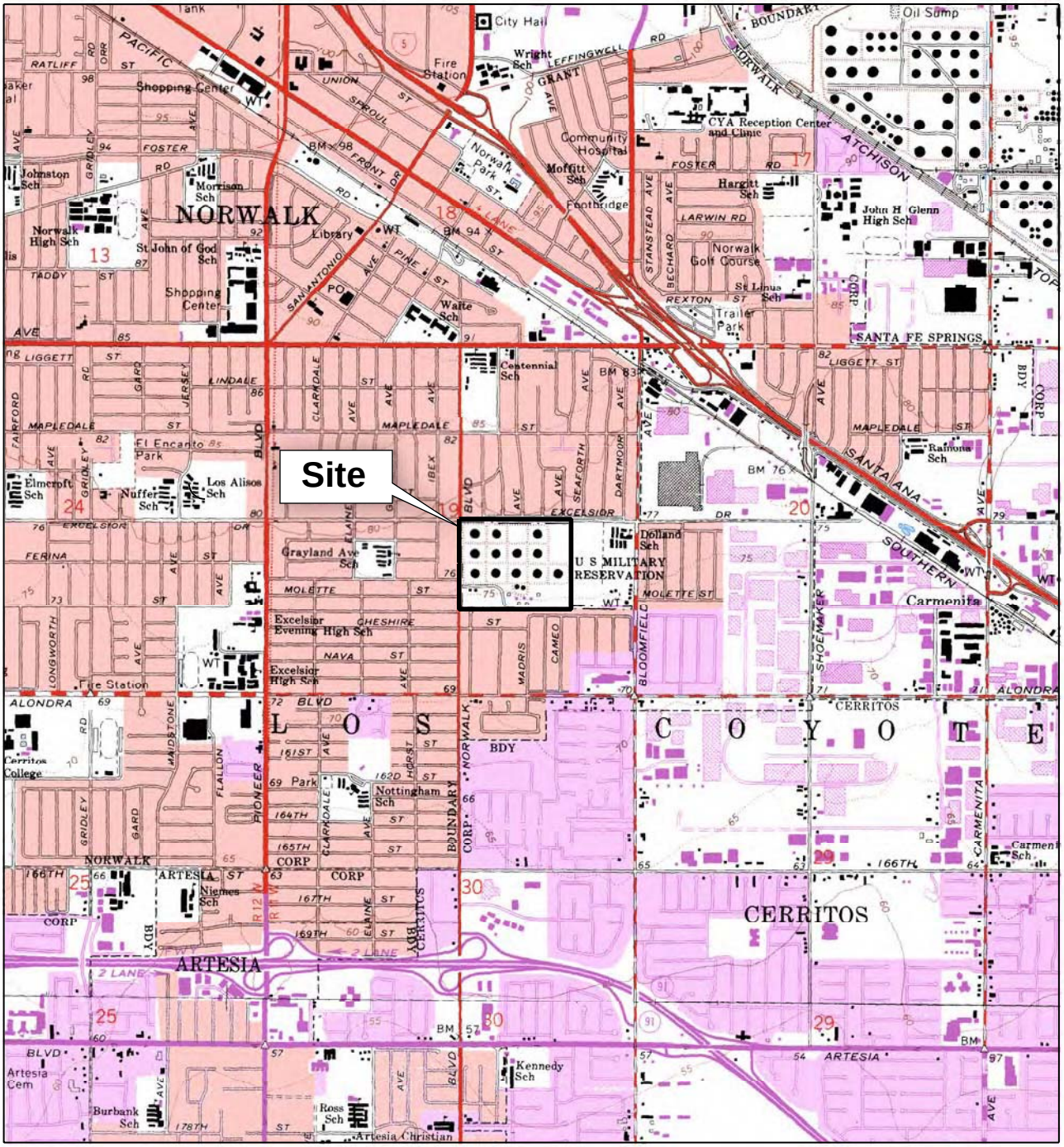
Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells
SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
	8/29/2014	78.27	35.65	35.38	0.27	42.84	Blaine Tech
	10/27/2014	78.27	34.25	---	---	44.02	Blaine Tech
MW-SF-16	8/14/2007	78.21	27.68	---	---	50.53	Geomatrix
	8/21/2007	78.21	27.33	---	---	50.88	Geomatrix
	8/28/2007	78.21	27.51	---	---	50.70	Stantec
	9/11/2007	78.21	27.59	---	---	50.62	Geomatrix
	10/5/2007	78.21	28.10	---	---	50.11	Geomatrix
	11/2/2007	78.21	29.81	---	---	48.40	Geomatrix
	11/12/2007	78.21	28.40	---	---	49.81	Stantec
	8/15/2008	78.21	29.36	---	---	48.85	Envent
	10/17/2008	78.21	29.51	---	---	48.70	Envent
	12/18/2008	78.21	30.94	---	---	47.27	Envent
	1/15/2009	78.21	30.01	30.00	0.01	48.21	Envent
	3/24/2009	78.21	29.82	---	---	48.39	Envent
	4/21/2009	78.21	29.60	---	---	48.61	Envent
	7/21/2009	78.21	30.36	---	---	47.85	Envent
	11/4/2009	78.21	30.58	---	---	47.63	Kinder Morgan
	2/4/2010	78.21	30.36	---	---	47.85	Kinder Morgan
	9/3/2010	78.21	30.25	---	---	47.96	Kinder Morgan
	10/4/2010	78.21	30.49	---	---	47.72	Blaine Tech
	4/12/2011	78.21	29.52	---	---	48.69	Blaine Tech
	10/10/2011	78.21	29.85	---	---	48.36	Blaine Tech
	10/15/2012	78.21	32.47	---	---	45.74	Blaine Tech
	4/8/2013	78.21	32.97	32.73	0.24	45.43	Blaine Tech
	11/14/2013	78.21	33.8	33.21	0.59	44.88	Blaine Tech
	4/18/2014	78.21	34.2	33.65	0.55	44.45	Blaine Tech
	8/8/2014	78.21	34.06	34.05	0.01	44.16	Blaine Tech
	10/27/2014	78.21	34.25	no product	0	43.96	Blaine Tech

Abbreviations

feet msl = feet above mean sea level based on National Geodetic Vertical Datum of 1929
feet btoc = feet below top of casing
--- = not detected or not applicable
Corrected groundwater elevations are based on specific gravity data collected during baildown testing, or a default value of 0.8 was used for wells not tested.

Figures



N

Approximate Scale in Feet

0 1200 2400

0 0 0

Approximate Scale in Meters

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

SITE LOCATION MAP

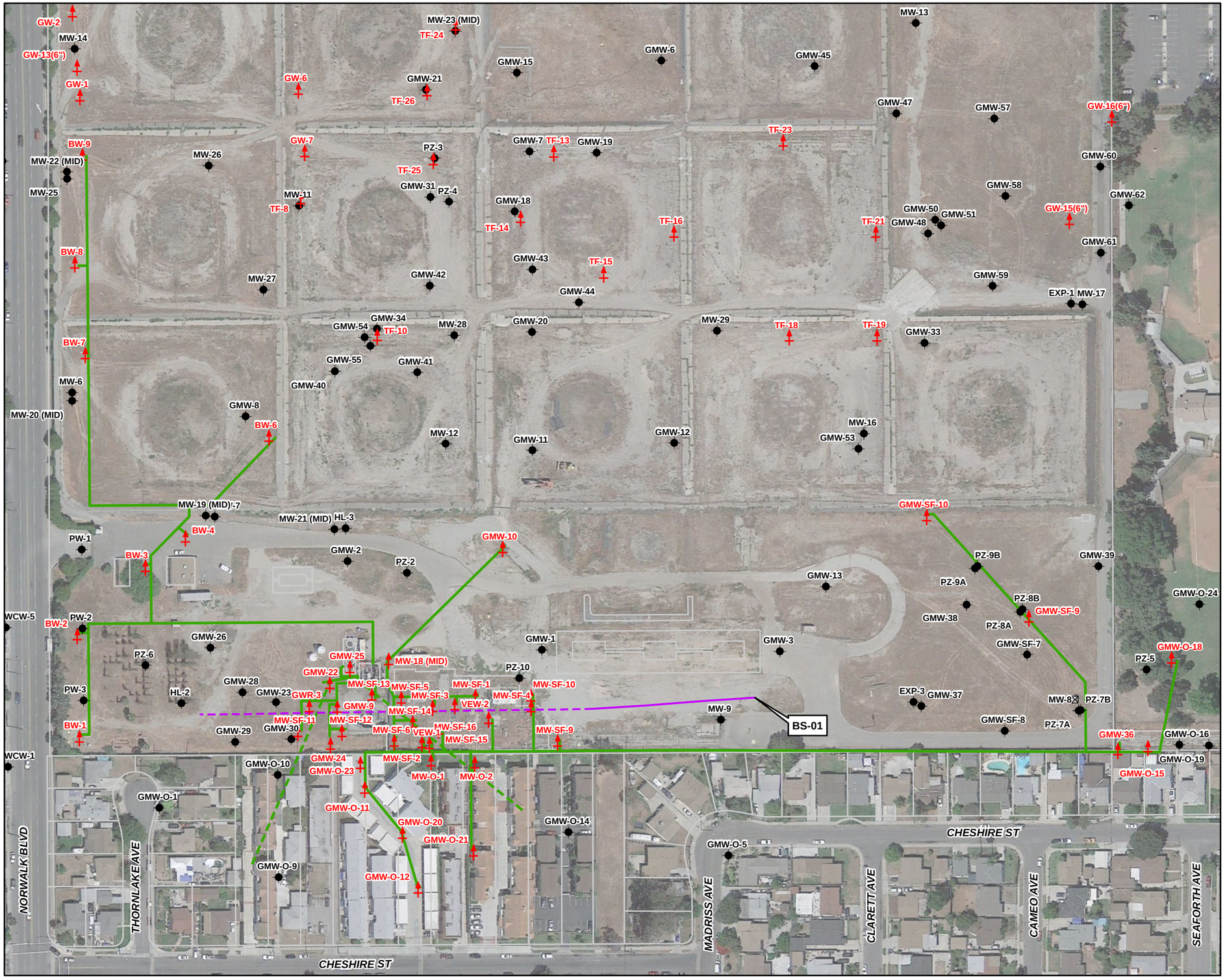
SFPP Norwalk Pump Station
Norwalk, California

By: Andy Vollmar	Date: July 21, 2010	Project No: 407609

CH2MHILL

Figure 1

ES070610212914SCO407609.A1.03 DFSP_sitelocation.ai 7/10



Legend

- Existing Groundwater Monitoring Well
- Existing Remediation Well
- Horizontal Biosparge Well (dashed line depicts approximate lateral extent of well screen)
- KMEP Remediation Piping Layout (above ground and below ground)
- Horizontal Vapor Extraction Well Piping

Imagery Source:
Google Earth April 17, 2013.

Figure 2
Remediation System Layout
SFPP Norwalk Pump Station
Norwalk, California

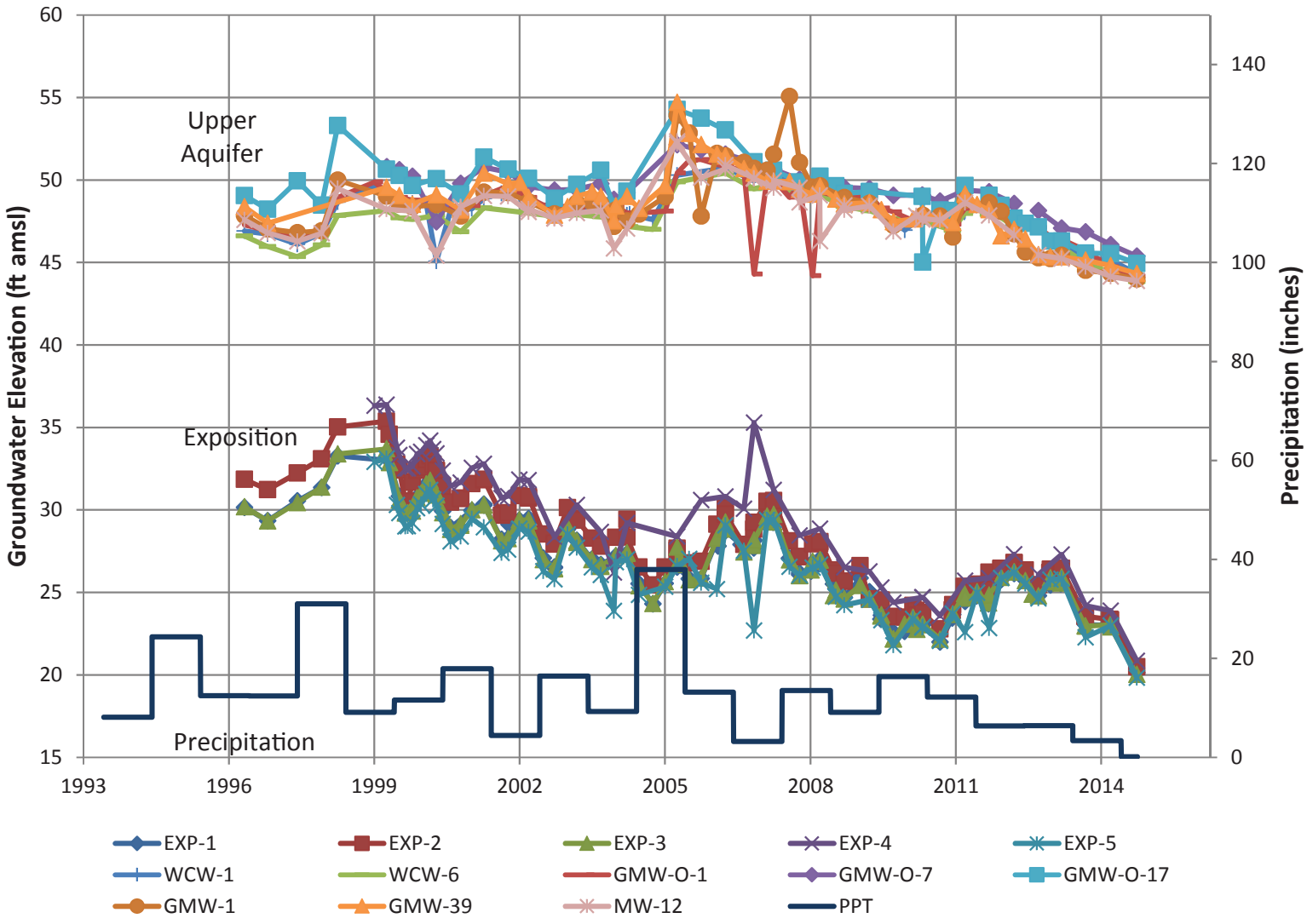


FIGURE 3
Hydrographs for Select Groundwater Monitoring Wells
SFPP Norwalk Pump Station
Norwalk, California

CH2MHILL

Appendix A
Laboratory Analytical Reports

January 26, 2015

Dan Jablonski
CH2MHill
1000 Wilshire Blvd.
Los Angeles, CA 90017

TEL:
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014406

RE: SFPP - Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on January 16, 2015 by ASSET Laboratories . 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,

Glen Gesmundo
QA Manager

CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N014406

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 were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Subcontracted Test:

Ammonia, MBAS and Phenols were subcontracted to AETL - Burbank, CA .

Analytical Comments for EPA 8260B:

Laboratory Control Sample (LCS) recovery biased high for 2-Butanone. Sample result was non-detect (ND) for this analyte therefore reanalysis of the sample was not necessary.

ASSET Laboratories

Date: *26-Jan-15*

CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N014406
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014406-001A	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001B	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001C	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001D	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001E	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001F	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001G	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001H	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001I	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001J	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001K	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015
N014406-001L	EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	1/16/2015	1/26/2015

CLIENT: CH2MHill
Lab Order: N014406
Project: SFPP - Norwalk Site
Lab ID: N014406-001

Client Sample ID: EFF-01-15
Collection Date: 1/15/2015 12:35:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL NON-FILTERABLE RESIDUE							
SM2540D							
RunID: **WETCHEM_150119E** QC Batch: **48460** PrepDate: **1/19/2015** Analyst: **RB**							
Suspended Solids (Residue, Non-Filterable)	ND	10	10		mg/L	1	1/19/2015 09:00 AM
SETTLEABLE MATTER							
SM2540F							
RunID: **WETCHEM_150118A** QC Batch: **48531** PrepDate: **1/18/2015** Analyst: **QBM**							
Settleable Matter	ND	0.10	0.10		ml/L	1	1/18/2015
TURBIDITY							
SM 2130B							
RunID: **WETCHEM_150117C** QC Batch: **R97645** PrepDate: Analyst: **RB**							
Turbidity	ND	0.10	0.10		NTU	1	1/17/2015
HEXANE EXTRACTABLE MATERIAL (HEM)							
EPA 1664 _HEM							
RunID: **WETCHEM_150122A** QC Batch: **48505** PrepDate: **1/22/2015** Analyst: **admin**							
Oil & Grease	ND	0.82	4.1		mg/L	1	1/22/2015 10:00 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
EPA 8260B							
RunID: **MS5_150118A** QC Batch: **P15VW013** PrepDate: Analyst: **QBM**							
1,1,1-Trichloroethane	ND	0.072	1.0		ug/L	1	1/18/2015 05:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10	1.0		ug/L	1	1/18/2015 05:00 PM
1,1,2-Trichloroethane	ND	0.042	1.0		ug/L	1	1/18/2015 05:00 PM
1,1-Dichloroethane	ND	0.054	0.50		ug/L	1	1/18/2015 05:00 PM
1,1-Dichloroethene	ND	0.16	1.0		ug/L	1	1/18/2015 05:00 PM
1,2,4-Trichlorobenzene	ND	0.10	1.0		ug/L	1	1/18/2015 05:00 PM
1,2-Dichlorobenzene	ND	0.048	1.0		ug/L	1	1/18/2015 05:00 PM
1,2-Dichloroethane	ND	0.044	0.50		ug/L	1	1/18/2015 05:00 PM
1,2-Dichloropropane	ND	0.094	1.0		ug/L	1	1/18/2015 05:00 PM
1,3-Dichlorobenzene	ND	0.061	1.0		ug/L	1	1/18/2015 05:00 PM
1,4-Dichlorobenzene	ND	0.078	1.0		ug/L	1	1/18/2015 05:00 PM
2-Butanone	ND	0.70	10		ug/L	1	1/18/2015 05:00 PM
Benzene	ND	0.048	1.0		ug/L	1	1/18/2015 05:00 PM
Bromodichloromethane	ND	0.048	1.0		ug/L	1	1/18/2015 05:00 PM
Bromoform	ND	0.061	1.0		ug/L	1	1/18/2015 05:00 PM
Bromomethane	ND	0.073	1.0		ug/L	1	1/18/2015 05:00 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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

CLIENT: CH2MHill
Lab Order: N014406
Project: SFPP - Norwalk Site
Lab ID: N014406-001

Client Sample ID: EFF-01-15
Collection Date: 1/15/2015 12:35:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150118A**	QC Batch: **P15VW013**			PrepDate:			Analyst: **QBM**
Carbon tetrachloride	ND	0.057	0.50		ug/L	1	1/18/2015 05:00 PM
Chlorobenzene	ND	0.028	1.0		ug/L	1	1/18/2015 05:00 PM
Chloroethane	ND	0.099	1.0		ug/L	1	1/18/2015 05:00 PM
Chloroform	ND	0.048	1.0		ug/L	1	1/18/2015 05:00 PM
Chloromethane	0.16	0.043	1.0	J	ug/L	1	1/18/2015 05:00 PM
cis-1,3-Dichloropropene	ND	0.043	1.0		ug/L	1	1/18/2015 05:00 PM
Di-isopropyl ether	ND	0.034	1.0		ug/L	1	1/18/2015 05:00 PM
Dibromochloromethane	ND	0.057	1.0		ug/L	1	1/18/2015 05:00 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	1/18/2015 05:00 PM
Hexachlorobutadiene	ND	0.070	1.0		ug/L	1	1/18/2015 05:00 PM
m,p-Xylene	ND	0.14	1.0		ug/L	1	1/18/2015 05:00 PM
Methylene chloride	ND	0.28	2.0		ug/L	1	1/18/2015 05:00 PM
MTBE	ND	0.098	1.0		ug/L	1	1/18/2015 05:00 PM
Naphthalene	ND	0.062	1.0		ug/L	1	1/18/2015 05:00 PM
o-Xylene	ND	0.042	1.0		ug/L	1	1/18/2015 05:00 PM
Tert-amyl methyl ether	ND	0.054	1.0		ug/L	1	1/18/2015 05:00 PM
Tert-Butanol	ND	0.40	5.0		ug/L	1	1/18/2015 05:00 PM
Tetrachloroethene	ND	0.12	1.0		ug/L	1	1/18/2015 05:00 PM
Toluene	ND	0.025	2.0		ug/L	1	1/18/2015 05:00 PM
trans-1,2-Dichloroethene	ND	0.074	1.0		ug/L	1	1/18/2015 05:00 PM
trans-1,3-Dichloropropene	ND	0.051	1.0		ug/L	1	1/18/2015 05:00 PM
Trichloroethene	ND	0.074	1.0		ug/L	1	1/18/2015 05:00 PM
Vinyl chloride	ND	0.044	0.50		ug/L	1	1/18/2015 05:00 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	1/18/2015 05:00 PM
Surr: 1,2-Dichloroethane-d4	92.5	0	72-119		%REC	1	1/18/2015 05:00 PM
Surr: 4-Bromofluorobenzene	91.8	0	76-119		%REC	1	1/18/2015 05:00 PM
Surr: Dibromofluoromethane	97.0	0	85-115		%REC	1	1/18/2015 05:00 PM
Surr: Toluene-d8	100	0	81-120		%REC	1	1/18/2015 05:00 PM
TPH EXTRACTABLE BY GC/FID							
		EPA 3510C	**EPA 8015B**				
RunID: **GC3_150119A**	QC Batch: **48456**			PrepDate:	**1/19/2015**		Analyst: **MDM**
TPH-Diesel (C13-C22)	ND	15	25		ug/L	1	1/19/2015 04:06 PM
TPH-Oil (C23-C36)	ND	14	25		ug/L	1	1/19/2015 04:06 PM
Surr: Octacosane	80.3	0	26-152		%REC	1	1/19/2015 04:06 PM
Surr: p-Terphenyl	77.9	0	57-132		%REC	1	1/19/2015 04:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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

CLIENT: CH2MHill
Lab Order: N014406
Project: SFPP - Norwalk Site
Lab ID: N014406-001

Client Sample ID: EFF-01-15
Collection Date: 1/15/2015 12:35:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID							
			EPA 8015B				
RunID: **GC4_150119A**	QC Batch: **E15VW005**			PrepDate:			Analyst: **QBM**
TPH-Gasoline (C4-C12)	ND	16	50		ug/L	1	1/19/2015 11:10 AM
Surr: Chlorobenzene - d5	108	0	74-138		%REC	1	1/19/2015 11:10 AM
HEXAVALENT CHROMIUM BY IC							
			EPA 7199				
RunID: **IC6_150116A**	QC Batch: **R97567**			PrepDate:			Analyst: **RB**
Hexavalent Chromium	0.35	0.016	0.20		µg/L	1	1/16/2015 11:57 AM
MERCURY BY COLD VAPOR TECHNIQUE							
			EPA 245.1				
RunID: **AA1_150120A**	QC Batch: **48471**			PrepDate:	**1/20/2015**		Analyst: **CEI**
Mercury	ND	0.018	0.050		µg/L	1	1/20/2015 04:27 PM
TOTAL METALS BY COLLISION/REACTION CELL ICPMS							
			EPA 200.8				
RunID: **ICP7_150119C**	QC Batch: **48466**			PrepDate:	**1/19/2015**		Analyst: **CEI**
Selenium	ND	0.069	0.50		µg/L	1	1/20/2015 06:21 AM
TOTAL METALS BY ICPMS							
			EPA 200.8				
RunID: **ICP7_150119C**	QC Batch: **48466**			PrepDate:	**1/19/2015**		Analyst: **CEI**
Copper	ND	0.040	0.50		µg/L	1	1/20/2015 06:21 AM
Lead	ND	0.011	0.50		µg/L	1	1/20/2015 06:21 AM
Thallium	ND	0.0080	0.50		µg/L	1	1/20/2015 06:21 AM
Zinc	0.50	0.23	10	J	µg/L	1	1/20/2015 06:21 AM
TOTAL TPH							
		EPA 3510C	**EPA 8015B**				
RunID: **GC3_150119A**	QC Batch: **48456**			PrepDate:	**1/19/2015**		Analyst: **MDM**
Total TPH	ND	22	50		ug/L	1	1/19/2015 04:06 PM

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 interference
DO	Surrogate Diluted Out

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.2_2540D_W

Sample ID: **MB-48460**	SampType: **MBLK**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **1/19/2015**	RunNo: **97654**
Client ID: **PBW**	Batch ID: **48460**	TestNo: **SM2540D**		Analysis Date: **1/19/2015**	SeqNo: **1915166**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	ND	10									

Sample ID: **LCS-48460**	SampType: **LCS**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **1/19/2015**	RunNo: **97654**
Client ID: **LCSW**	Batch ID: **48460**	TestNo: **SM2540D**		Analysis Date: **1/19/2015**	SeqNo: **1915167**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	923.000	10	1000	0	92.3	80	120				

Sample ID: **N014406-001DDUP**	SampType: **DUP**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **1/19/2015**	RunNo: **97654**
Client ID: **ZZZZZZ**	Batch ID: **48460**	TestNo: **SM2540D**		Analysis Date: **1/19/2015**	SeqNo: **1915172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	ND	10						0	0	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.5_2540F_W

Sample ID: **MB-48531** SampType: **MBLK** TestCode: **160.5_2540F_** Units: **ml/L** Prep Date: **1/26/2015** RunNo: **97712**
Client ID: **PBW** Batch ID: **48531** TestNo: **SM2540F** Analysis Date: **1/18/2015** SeqNo: **1918519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Settleable Matter	ND	0.10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 1664_HEM_W

Sample ID: **MB-R97671**	SampType: **MBLK**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **1/22/2015**	RunNo: **97671**
Client ID: **PBW**	Batch ID: **48505**	TestNo: **EPA 1664 _H**		Analysis Date: **1/22/2015**	SeqNo: **1916699**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	ND	4.0									

Sample ID: **LCS-R97671**	SampType: **LCS**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **1/22/2015**	RunNo: **97671**
Client ID: **LCSW**	Batch ID: **48505**	TestNo: **EPA 1664 _H**		Analysis Date: **1/22/2015**	SeqNo: **1916700**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	41.500	4.0	40.00	0	104	78	114				

Sample ID: **N014406-001G-MS**	SampType: **MS**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **1/22/2015**	RunNo: **97671**
Client ID: **ZZZZZZ**	Batch ID: **48505**	TestNo: **EPA 1664 _H**		Analysis Date: **1/22/2015**	SeqNo: **1916702**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	32.245	4.1	40.82	0	79.0	78	114				

Sample ID: **N014406-001G-MSD**	SampType: **MSD**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **1/22/2015**	RunNo: **97671**
Client ID: **ZZZZZZ**	Batch ID: **48505**	TestNo: **EPA 1664 _H**		Analysis Date: **1/22/2015**	SeqNo: **1916703**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	31.939	4.1	40.82	0	78.2	78	114	32.24	0.954	18	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_DRC

Sample ID: **MB-48466**	SampType: **MBLK**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **1/19/2015**	RunNo: **97627**
Client ID: **PBW**	Batch ID: **48466**	TestNo: **EPA 200.8**		Analysis Date: **1/20/2015**	SeqNo: **1913661**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.50									

Sample ID: **LCS-48466**	SampType: **LCS**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **1/19/2015**	RunNo: **97627**
Client ID: **LCSW**	Batch ID: **48466**	TestNo: **EPA 200.8**		Analysis Date: **1/20/2015**	SeqNo: **1913662**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	9.678	0.50	10.00	0	96.8	85	115				

Sample ID: **N014406-001E-MS**	SampType: **MS**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **1/19/2015**	RunNo: **97627**
Client ID: **ZZZZZZ**	Batch ID: **48466**	TestNo: **EPA 200.8**		Analysis Date: **1/20/2015**	SeqNo: **1913666**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.793	0.50	10.00	0	87.9	75	125				

Sample ID: **N014406-001E-MSD**	SampType: **MSD**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **1/19/2015**	RunNo: **97627**
Client ID: **ZZZZZZ**	Batch ID: **48466**	TestNo: **EPA 200.8**		Analysis Date: **1/20/2015**	SeqNo: **1913667**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	9.127	0.50	10.00	0	91.3	75	125	8.793	3.72	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_SFPP

Sample ID: **MB-48466** SampType: **MBLK** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **1/19/2015** RunNo: **97627**
Client ID: **PBW** Batch ID: **48466** TestNo: **EPA 200.8** Analysis Date: **1/20/2015** SeqNo: **1913821**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.50									
Lead	0.083	0.50									J
Thallium	ND	0.50									
Zinc	ND	10									

Sample ID: **LCS-48466** SampType: **LCS** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **1/19/2015** RunNo: **97627**
Client ID: **LCSW** Batch ID: **48466** TestNo: **EPA 200.8** Analysis Date: **1/20/2015** SeqNo: **1913822**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	10.947	0.50	10.00	0	109	85	115				
Lead	10.834	0.50	10.00	0	108	85	115				
Thallium	10.982	0.50	10.00	0	110	85	115				
Zinc	100.447	10	100.0	0	100	85	115				

Sample ID: **N014406-001E-MS** SampType: **MS** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **1/19/2015** RunNo: **97627**
Client ID: **ZZZZZZ** Batch ID: **48466** TestNo: **EPA 200.8** Analysis Date: **1/20/2015** SeqNo: **1913826**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.570	0.50	10.00	0	75.7	75	125				
Lead	10.357	0.50	10.00	0	104	75	125				
Thallium	10.610	0.50	10.00	0	106	75	125				
Zinc	83.632	10	100.0	0.4966	83.1	75	125				

Sample ID: **N014406-001E-MSD** SampType: **MSD** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **1/19/2015** RunNo: **97627**
Client ID: **ZZZZZZ** Batch ID: **48466** TestNo: **EPA 200.8** Analysis Date: **1/20/2015** SeqNo: **1913827**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.745	0.50	10.00	0	77.4	75	125	7.570	2.28	20	
Lead	10.283	0.50	10.00	0	103	75	125	10.36	0.714	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_SFPP

Sample ID: **N014406-001E-MSD** SampType: **MSD** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **1/19/2015** RunNo: **97627**
Client ID: **ZZZZZZ** Batch ID: **48466** TestNo: **EPA 200.8** Analysis Date: **1/20/2015** SeqNo: **1913827**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	10.559	0.50	10.00	0	106	75	125	10.61	0.480	20	
Zinc	84.821	10	100.0	0.4966	84.3	75	125	83.63	1.41	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 2130_W

Sample ID: **N014406-001DDUP** SampType: **DUP** TestCode: **2130_W** Units: **NTU** Prep Date: RunNo: **97645**
Client ID: **ZZZZZZ** Batch ID: **R97645** TestNo: **SM 2130B** Analysis Date: **1/17/2015** SeqNo: **1914973**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Turbidity	ND	0.10						0	0	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1_W_LL

Sample ID: **MB-48471**	SampType: **MBLK**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **1/20/2015**	RunNo: **97624**
Client ID: **PBW**	Batch ID: **48471**	TestNo: **EPA 245.1**		Analysis Date: **1/20/2015**	SeqNo: **1913217**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.050									

Sample ID: **LCS-48471**	SampType: **LCS**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **1/20/2015**	RunNo: **97624**
Client ID: **LCSW**	Batch ID: **48471**	TestNo: **EPA 245.1**		Analysis Date: **1/20/2015**	SeqNo: **1913220**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.551	0.050	2.500	0	102	85	115				

Sample ID: **N014406-001E-MS**	SampType: **MS**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **1/20/2015**	RunNo: **97624**
Client ID: **ZZZZZZ**	Batch ID: **48471**	TestNo: **EPA 245.1**		Analysis Date: **1/20/2015**	SeqNo: **1913221**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.597	0.050	2.500	0	104	75	125				

Sample ID: **N014406-001E-MSD**	SampType: **MSD**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **1/20/2015**	RunNo: **97624**
Client ID: **ZZZZZZ**	Batch ID: **48471**	TestNo: **EPA 245.1**		Analysis Date: **1/20/2015**	SeqNo: **1913222**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.623	0.050	2.500	0	105	75	125	2.597	1.01	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 7199_WPGE

Sample ID: **MB-R97567**	SampType: **MBLK**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **97567**
Client ID: **PBW**	Batch ID: **R97567**	TestNo: **EPA 7199**		Analysis Date: **1/16/2015**	SeqNo: **1910495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R97567**	SampType: **LCS**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **97567**
Client ID: **LCSW**	Batch ID: **R97567**	TestNo: **EPA 7199**		Analysis Date: **1/16/2015**	SeqNo: **1910496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.023	0.20	5.000	0	100	90	110				

Sample ID: **N014403-001A-DUP**	SampType: **DUP**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **97567**
Client ID: **ZZZZZZ**	Batch ID: **R97567**	TestNo: **EPA 7199**		Analysis Date: **1/16/2015**	SeqNo: **1910498**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.772	0.20						1.763	0.487	20	

Sample ID: **N014403-001A-MSD**	SampType: **MSD**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **97567**
Client ID: **ZZZZZZ**	Batch ID: **R97567**	TestNo: **EPA 7199**		Analysis Date: **1/16/2015**	SeqNo: **1910499**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2.838	0.20	1.000	1.763	108	85	115	2.815	0.838	20	

Sample ID: **N014403-001A-MS**	SampType: **MS**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **97567**
Client ID: **ZZZZZZ**	Batch ID: **R97567**	TestNo: **EPA 7199**		Analysis Date: **1/16/2015**	SeqNo: **1910504**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	2.815	0.20	1.000	1.763	105	85	115				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 7199_WPGE

Sample ID: **N014406-001F-REP** SampType: **DUP** TestCode: **7199_WPGE** Units: **µg/L** Prep Date: RunNo: **97567**
Client ID: **ZZZZZZ** Batch ID: **R97567** TestNo: **EPA 7199** Analysis Date: **1/16/2015** SeqNo: **1910508**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.332	0.20						0.3505	5.48	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_FP_SFPP

Sample ID: **MB-48456** SampType: **MBLK** TestCode: **8015_W_FP_** Units: **ug/L** Prep Date: **1/19/2015** RunNo: **97608**
Client ID: **PBW** Batch ID: **48456** TestNo: **EPA 8015B** **EPA 3510C** Analysis Date: **1/19/2015** SeqNo: **1912272**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	ND	25									
Surr: Octacosane	78.519		80.00		98.1	26	152				
Surr: p-Terphenyl	75.866		80.00		94.8	57	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_SFPPTOT

Sample ID: **MB-48456**	SampType: **MBLK**	TestCode: **8015_W_SFP**	Units: **ug/L**		Prep Date: **1/19/2015**			RunNo: **97608**			
Client ID: **PBW**	Batch ID: **48456**	TestNo: **EPA 8015B**	**EPA 3510C**		Analysis Date: **1/19/2015**			SeqNo: **1912710**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	0	50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID: **E150119LCS** SampType: **LCS** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97613**
Client ID: **LCSW** Batch ID: **E15VW005** TestNo: **EPA 8015B** Analysis Date: **1/19/2015** SeqNo: **1912724**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	880.000	50	1000	0	88.0	67	136				
Surr: Chlorobenzene - d5	50933.000		50000		102	74	138				

Sample ID: **E150119MB1** SampType: **MBLK** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97613**
Client ID: **PBW** Batch ID: **E15VW005** TestNo: **EPA 8015B** Analysis Date: **1/19/2015** SeqNo: **1912725**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	53363.000		50000		107	74	138				

Sample ID: **N014406-001JMS** SampType: **MS** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97613**
Client ID: **ZZZZZZ** Batch ID: **E15VW005** TestNo: **EPA 8015B** Analysis Date: **1/19/2015** SeqNo: **1912727**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	917.000	50	1000	0	91.7	67	136				
Surr: Chlorobenzene - d5	54940.000		50000		110	74	138				

Sample ID: **N014406-001JMSD** SampType: **MSD** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97613**
Client ID: **ZZZZZZ** Batch ID: **E15VW005** TestNo: **EPA 8015B** Analysis Date: **1/19/2015** SeqNo: **1912728**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	933.000	50	1000	0	93.3	67	136	917.0	1.73	30	
Surr: Chlorobenzene - d5	55081.000		50000		110	74	138		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150118LCS** SampType: **LCS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **LCSW** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	18.150	1.0	20.00	0	90.8	67	132				
1,1,2,2-Tetrachloroethane	19.450	1.0	20.00	0	97.3	63	128				
1,1,2-Trichloroethane	20.090	1.0	20.00	0	100	75	125				
1,1-Dichloroethane	17.130	0.50	20.00	0	85.7	69	133				
1,1-Dichloroethene	17.720	1.0	20.00	0	88.6	68	130				
1,2,4-Trichlorobenzene	18.440	1.0	20.00	0	92.2	66	134				
1,2-Dichlorobenzene	21.380	1.0	20.00	0	107	71	122				
1,2-Dichloroethane	18.510	0.50	20.00	0	92.6	69	132				
1,2-Dichloropropane	17.610	1.0	20.00	0	88.0	75	125				
1,3-Dichlorobenzene	19.760	1.0	20.00	0	98.8	75	124				
1,4-Dichlorobenzene	20.180	1.0	20.00	0	101	74	123				
2-Butanone	300.810	10	200.0	0	150	49	136				S
Benzene	19.350	1.0	20.00	0	96.8	81	122				
Bromodichloromethane	21.670	1.0	20.00	0	108	76	121				
Bromoform	22.940	1.0	20.00	0	115	69	128				
Bromomethane	14.540	1.0	20.00	0	72.7	53	141				
Carbon tetrachloride	25.280	0.50	20.00	0	126	66	138				
Chlorobenzene	19.280	1.0	20.00	0	96.4	81	122				
Chloroethane	17.830	1.0	20.00	0	89.2	58	133				
Chloroform	17.980	1.0	20.00	0	89.9	69	128				
Chloromethane	12.390	1.0	20.00	0	62.0	56	131				
cis-1,3-Dichloropropene	19.740	1.0	20.00	0	98.7	69	131				
Di-isopropyl ether	15.770	1.0	20.00	0	78.8	70	130				
Dibromochloromethane	23.420	1.0	20.00	0	117	66	133				
Ethylbenzene	18.850	1.0	20.00	0	94.3	73	127				
Hexachlorobutadiene	20.820	1.0	20.00	0	104	67	131				
m,p-Xylene	38.300	1.0	40.00	0	95.8	76	128				
Methylene chloride	17.010	2.0	20.00	0	85.0	63	137				
MTBE	17.460	1.0	20.00	0	87.3	65	123				
Naphthalene	20.350	1.0	20.00	0	102	54	138				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150118LCS** SampType: **LCS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **LCSW** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	19.110	1.0	20.00	0	95.6	80	121				
Tert-amyl methyl ether	18.890	1.0	20.00	0	94.4	70	130				
Tert-Butanol	86.780	5.0	100.0	0	86.8	70	130				
Tetrachloroethene	18.840	1.0	20.00	0	94.2	66	128				
Toluene	19.900	2.0	20.00	0	99.5	77	122				
trans-1,2-Dichloroethene	18.210	1.0	20.00	0	91.1	63	137				
trans-1,3-Dichloropropene	20.440	1.0	20.00	0	102	59	135				
Trichloroethene	20.070	1.0	20.00	0	100	70	127				
Vinyl chloride	16.820	0.50	20.00	0	84.1	50	134				
Xylenes, Total	57.410	2.0	60.00	0	95.7	75	125				
Surr: 1,2-Dichloroethane-d4	22.560		25.00		90.2	72	119				
Surr: 4-Bromofluorobenzene	25.200		25.00		101	76	119				
Surr: Dibromofluoromethane	23.760		25.00		95.0	85	115				
Surr: Toluene-d8	25.120		25.00		100	81	120				

Sample ID: **N014413-001AMS** SampType: **MS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **ZZZZZZ** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	18.770	1.0	20.00	0	93.8	67	132				
1,1,2,2-Tetrachloroethane	20.880	1.0	20.00	0	104	63	128				
1,1,2-Trichloroethane	21.730	1.0	20.00	0	109	75	125				
1,1-Dichloroethane	17.580	0.50	20.00	0	87.9	69	133				
1,1-Dichloroethene	18.120	1.0	20.00	0	90.6	68	130				
1,2,4-Trichlorobenzene	18.710	1.0	20.00	0	93.6	66	134				
1,2-Dichlorobenzene	22.330	1.0	20.00	0	112	71	122				
1,2-Dichloroethane	19.520	0.50	20.00	0	97.6	69	132				
1,2-Dichloropropane	18.490	1.0	20.00	0	92.5	75	125				
1,3-Dichlorobenzene	20.450	1.0	20.00	0	102	75	124				
1,4-Dichlorobenzene	20.870	1.0	20.00	0	104	74	123				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **N014413-001AMS** SampType: **MS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **ZZZZZZ** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Butanone	171.500	10	200.0	0	85.8	49	136				
Benzene	19.820	1.0	20.00	0	99.1	81	122				
Bromodichloromethane	22.200	1.0	20.00	0	111	76	121				
Bromoform	24.520	1.0	20.00	0	123	69	128				
Bromomethane	15.290	1.0	20.00	0	76.5	53	141				
Carbon tetrachloride	23.790	0.50	20.00	0	119	66	138				
Chlorobenzene	20.670	1.0	20.00	0	103	81	122				
Chloroethane	18.430	1.0	20.00	0	92.2	58	133				
Chloroform	18.630	1.0	20.00	0	93.2	69	128				
Chloromethane	13.050	1.0	20.00	0	65.3	56	131				
cis-1,3-Dichloropropene	20.010	1.0	20.00	0	100	69	131				
Di-isopropyl ether	16.670	1.0	20.00	0	83.4	70	130				
Dibromochloromethane	24.830	1.0	20.00	0	124	66	133				
Ethylbenzene	19.640	1.0	20.00	0	98.2	73	127				
Hexachlorobutadiene	21.030	1.0	20.00	0	105	67	131				
m,p-Xylene	39.860	1.0	40.00	0	99.7	76	128				
Methylene chloride	17.440	2.0	20.00	0	87.2	63	137				
MTBE	18.500	1.0	20.00	0	92.5	65	123				
Naphthalene	21.100	1.0	20.00	0	106	54	138				
o-Xylene	20.180	1.0	20.00	0	101	80	121				
Tert-amyl methyl ether	19.570	1.0	20.00	0	97.9	70	130				
Tert-Butanol	88.740	5.0	100.0	0	88.7	70	130				
Tetrachloroethene	19.580	1.0	20.00	0	97.9	66	128				
Toluene	20.480	2.0	20.00	0	102	77	122				
trans-1,2-Dichloroethene	18.450	1.0	20.00	0	92.2	63	137				
trans-1,3-Dichloropropene	20.820	1.0	20.00	0	104	59	135				
Trichloroethene	20.720	1.0	20.00	0	104	70	127				
Vinyl chloride	17.050	0.50	20.00	0	85.2	50	134				
Xylenes, Total	60.040	2.0	60.00	0	100	75	125				
Surr: 1,2-Dichloroethane-d4	22.420		25.00		89.7	72	119				

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **N014413-001AMS** SampType: **MS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **ZZZZZZ** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911834**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25.390		25.00		102	76	119				
Surr: Dibromofluoromethane	24.300		25.00		97.2	85	115				
Surr: Toluene-d8	25.060		25.00		100	81	120				

Sample ID: **N014413-001AMSD** SampType: **MSD** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **ZZZZZZ** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	18.560	1.0	20.00	0	92.8	67	132	18.77	1.13	20	
1,1,2,2-Tetrachloroethane	20.680	1.0	20.00	0	103	63	128	20.88	0.962	20	
1,1,2-Trichloroethane	21.030	1.0	20.00	0	105	75	125	21.73	3.27	20	
1,1-Dichloroethane	16.990	0.50	20.00	0	85.0	69	133	17.58	3.41	20	
1,1-Dichloroethene	17.460	1.0	20.00	0	87.3	68	130	18.12	3.71	20	
1,2,4-Trichlorobenzene	17.470	1.0	20.00	0	87.4	66	134	18.71	6.85	20	
1,2-Dichlorobenzene	21.320	1.0	20.00	0	107	71	122	22.33	4.63	20	
1,2-Dichloroethane	19.180	0.50	20.00	0	95.9	69	132	19.52	1.76	20	
1,2-Dichloropropane	18.490	1.0	20.00	0	92.5	75	125	18.49	0	20	
1,3-Dichlorobenzene	19.670	1.0	20.00	0	98.4	75	124	20.45	3.89	20	
1,4-Dichlorobenzene	20.390	1.0	20.00	0	102	74	123	20.87	2.33	20	
2-Butanone	169.730	10	200.0	0	84.9	49	136	171.5	1.04	20	
Benzene	19.890	1.0	20.00	0	99.4	81	122	19.82	0.353	20	
Bromodichloromethane	21.740	1.0	20.00	0	109	76	121	22.20	2.09	20	
Bromoform	23.950	1.0	20.00	0	120	69	128	24.52	2.35	20	
Bromomethane	14.780	1.0	20.00	0	73.9	53	141	15.29	3.39	20	
Carbon tetrachloride	24.830	0.50	20.00	0	124	66	138	23.79	4.28	20	
Chlorobenzene	19.570	1.0	20.00	0	97.9	81	122	20.67	5.47	20	
Chloroethane	17.470	1.0	20.00	0	87.4	58	133	18.43	5.35	20	
Chloroform	17.970	1.0	20.00	0	89.8	69	128	18.63	3.61	20	
Chloromethane	12.130	1.0	20.00	0	60.6	56	131	13.05	7.31	20	
cis-1,3-Dichloropropene	19.850	1.0	20.00	0	99.2	69	131	20.01	0.803	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **N014413-001AMSD** SampType: **MSD** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **ZZZZZZ** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	15.960	1.0	20.00	0	79.8	70	130	16.67	4.35	20	
Dibromochloromethane	23.910	1.0	20.00	0	120	66	133	24.83	3.78	20	
Ethylbenzene	18.990	1.0	20.00	0	95.0	73	127	19.64	3.37	20	
Hexachlorobutadiene	18.900	1.0	20.00	0	94.5	67	131	21.03	10.7	20	
m,p-Xylene	37.600	1.0	40.00	0	94.0	76	128	39.86	5.84	20	
Methylene chloride	17.280	2.0	20.00	0	86.4	63	137	17.44	0.922	20	
MTBE	17.860	1.0	20.00	0	89.3	65	123	18.50	3.52	20	
Naphthalene	19.840	1.0	20.00	0	99.2	54	138	21.10	6.16	20	
o-Xylene	19.250	1.0	20.00	0	96.2	80	121	20.18	4.72	20	
Tert-amyl methyl ether	19.100	1.0	20.00	0	95.5	70	130	19.57	2.43	20	
Tert-Butanol	100.790	5.0	100.0	0	101	70	130	88.74	12.7	20	
Tetrachloroethene	18.420	1.0	20.00	0	92.1	66	128	19.58	6.11	20	
Toluene	20.010	2.0	20.00	0	100	77	122	20.48	2.32	20	
trans-1,2-Dichloroethene	18.150	1.0	20.00	0	90.8	63	137	18.45	1.64	20	
trans-1,3-Dichloropropene	20.920	1.0	20.00	0	105	59	135	20.82	0.479	20	
Trichloroethene	20.530	1.0	20.00	0	103	70	127	20.72	0.921	20	
Vinyl chloride	16.640	0.50	20.00	0	83.2	50	134	17.05	2.43	20	
Xylenes, Total	56.850	2.0	60.00	0	94.8	75	125	60.04	5.46	20	
Surr: 1,2-Dichloroethane-d4	22.350		25.00		89.4	72	119		0		
Surr: 4-Bromofluorobenzene	25.030		25.00		100	76	119		0		
Surr: Dibromofluoromethane	23.640		25.00		94.6	85	115		0		
Surr: Toluene-d8	25.250		25.00		101	81	120		0		

Sample ID: **P150118MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **PBW** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911836**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150118MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **PBW** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911836**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	10									
Benzene	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	0.190	1.0									J
cis-1,3-Dichloropropene	ND	1.0									
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Ethylbenzene	ND	1.0									
Hexachlorobutadiene	ND	1.0									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	2.0									
MTBE	ND	1.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014406
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150118MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97604**
Client ID: **PBW** Batch ID: **P15VW013** TestNo: **EPA 8260B** Analysis Date: **1/18/2015** SeqNo: **1911836**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene	ND	1.0									
Toluene	ND	2.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	22.840		25.00		91.4	72	119				
Surr: 4-Bromofluorobenzene	23.560		25.00		94.2	76	119				
Surr: Dibromofluoromethane	24.030		25.00		96.1	85	115				
Surr: Toluene-d8	24.980		25.00		99.9	81	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

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)

1/15/15

____ OF 1

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

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

P.O. NO.:
QUOTE NO.:
LAB USE ONLY:

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ■ 48HR ☐ 72 HR ■ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Report to D. Jablonski/CH2M HILL, cc: KMEP
Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195
"J" flags required/Use lowest possible detection limit - all methods.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Ammonia Nitrogen (as N) (SM-4500 NH3C	DIPE, TAME, and MEK (8260B)	MBAs (SM 5540C)	Turbidity (SM2130B)	Cu, Pb, Tl, Zn, & Priority Pollutants (200.8	Se (200.8); Hg (245.1)	Cr VI (7199)	BTEX, 1,1-DCA, 1,2-DCA, & Priority Pollutans (8260B)	MTBE and TBA, (8260B) 48HR TAT	Oil & Grease (1664)	TPH-g, TPH-d, and TPH-oil (8015B)	Settleable Solids (SM2540F)	Total Suspended Solids (SM2540D)	Phenol (420.1)	Comments
	EFF- 01-15	Effluent	1/15/15	1235	WW		X	X	X	X	X	X	X	X	X	X	X	X	X	X	NO14406-01

4.6°C IR#1

Relinquished by: (Signature)		Received by: (Signature)	Date: 1-15-15 Time: 4:20 PM
Relinquished by: (Signature) 1-15-15 5:11PM		Received by: (Signature)	Date: 1/16/15 Time: 9:13
Relinquished by: (Signature)		Received by: (Signature)	Date: Time:

Revised: 08/23/12

ASSET Laboratories

Please review the checklist below. Any NO 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 (702) 307-2659.

Cooler Received/Opened On:	1/16/2014	Workorder:	N014406
Rep sample Temp (Deg C):	4.6	IR Gun ID:	1
Temp Blank:	☑ Yes ☐ No		
Carrier name:	Golden State Overnight		
Last 4 digits of Tracking No.:	1091	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated 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 ☑	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. Temperature of rep sample or Temp Blank within acceptable 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 ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments

Checklist Completed B JPG 01/16/15

Reviewed By: 01/20/15

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840
Acct #:

Field Sampler: James Dye

19-Jan-15

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				EPA 420.1	SM 5540 C	SM4500-NH3C
N014406-001A / EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	16OZP			1
N014406-001C / EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	32OZP		1	
N014406-001I / EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	32OZA	1		

General Comments: Please email sample receipt acknowledgement to the PM.

Please use PO#: N14406A For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 5day TAT

Please analyze for Ammonia, Phenols and Surfactants.

		Date/Time		Date/Time
Relinquished by:	jpg 01/16/15		**Received by:**	
Relinquished by:			**Received by:**	

ASSET Laboratories

WORK ORDER Summary

19-Jan-15

WorkOrder: N014406

Client ID: CH2HI03

Project: SFPP - Norwalk Site **QC Level:** RTNE **Date Received:** 1/16/2015

Comments: Report to D. Jablonski/CH2M HILL, cc:KMEP. Direct Bill KMEP/SFPP-Steve Defibaugh-ref.AFE# 81195. "J" Flags required / Use lowest possible detection l

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N014406-001A	EFF-01-15	1/15/2015 12:35:00 PM	1/23/2015	Wastewater	SM4500-NH3C	AMMONIA-N	☐	☐	☑	SUB
N014406-001B			1/20/2015		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WV
N014406-001C			1/23/2015		SM 5540 C	SURFACTANTS	☐	☐	☑	SUB
N014406-001D			1/23/2015		SM2540D	TOTAL NON-FILTERABLE RESIDUE	☐	☐	☐	WW
			1/23/2015			Total Suspended Solids Prep	☐	☐	☐	WW
			1/23/2015		SM 2130B	TURBIDITY	☐	☐	☐	WW
N014406-001E			1/23/2015			AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			1/23/2015		EPA 200.8	TOTAL METALS BY COLLISION/REACTION CELL ICPMS	☐	☐	☐	WW
			1/23/2015		EPA 200.8	TOTAL METALS BY ICPMS	☐	☐	☐	WW
			1/23/2015		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE	☐	☐	☐	WW
			1/23/2015			MERCURY PREP	☐	☐	☐	WW
N014406-001F			1/23/2015		EPA 7199	Hexavalent Chromium by IC	☐	☐	☐	WW
N014406-001G			1/23/2015			Oil and Grease Sample Prep	☐	☐	☐	WW
			1/23/2015		EPA 1664 _HEM	Hexane Extractable Material (HEM)	☐	☐	☐	WW
N014406-001H			1/23/2015		SM2540F	SETTLEABLE MATTER	☐	☐	☐	WW
N014406-001I			1/23/2015		EPA 420.1	PHENOLICS	☐	☐	☑	SUB
N014406-001J			1/23/2015		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	☐	☐	☐	WV
N014406-001K			1/23/2015		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	☐	☐	☐	WW
			1/23/2015		EPA 8015B	TPH EXTRACTABLE BY GC/FID	☐	☐	☐	WW
			1/23/2015		EPA 8015B	Total TPH	☐	☐	☐	WW

ASSET Laboratories

WORK ORDER Summary

19-Jan-15

WorkOrder: N014406

Client ID: CH2HI03

Project: SFPP - Norwalk Site **QC Level:** RTNE **Date Received:** 1/16/2015

Comments: Report to D. Jablonski/CH2M HILL, cc:KMEP. Direct Bill KMEP/SFPP-Steve Defibaugh-ref.AFE# 81195. "J" Flags required / Use lowest possible detection l

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N014406-001L	EFF-01-15	1/15/2015 12:35:00 PM	1/23/2015	Wastewater	EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WV
N014406-002A	FOLDER		1/20/2015		Folder	Folder	☐	☐	☐	LAB

GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

Ship From
ASSET LABORATORIES
MOLKY BRAR
11060 ARTESIA BLVD., STE. C
CERRITOS, CA 90703

Ship To
ATL INC
MARLON CARTIN
3151 W. POST RD.,
LAS VEGAS, NV 89118

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 526661091 **CPS**

LVS
LAS VEGAS

N89103A

32958178

Print Date: 1/15/2015 5:35 PM

Package 1 of 2

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attention: Marlon Cartin

Number of Pages	**4**
Date Received	**01/16/2015**
Date Reported	**01/20/2015**

Job Number	Order Date	Client
75676	01/16/2015	ASSET

Project ID: N014406
Project Name: N14406A

Enclosed please find results of analyses of 1 waste water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

AETL

75676

ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.3072691
California: 11050 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436
www.assetlaboratories.com

Client: ASSET Labs
Address:
Address:
Phone: Fax:
Submitted By: Molky Bran
Title:
Signature: Date:

Report to:
Company:
Email:
Address:
Phone: Fax:
Sampled By:

Bill to:
Address:
Email to: PO#
Phone: Fax:

EDD Requirement: Excel EDD ☐ Geotracker ☐ Labspec ☐ Others ☐ Specify: Global ID:

QA/QC: RTNE ☐ RWQCB ☐ CalTrans ☐ Level III ☐ LEVEL IV ☐ Regulatory ☐ Specify State:

Sample Receipt Condition	Y	N
1. Chilled	☐	☐
2. Headspace	☐	☐
3. Container Intact	☐	☐
4. Seal Present	☐	☐
5. IR number		
6. Method of Cooling		
Sample Temp:		

Courier:
Tracking No.

I hereby authorize ASSET Labs to perform the tests indicated below:
Project Name: SFPP - Norwalk Site
Project Number:

I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.
Signature: Date

Matrix: Ground ☐ Sediment ☐ Potable ☐ Soil ☐ NPDES ☐ Other Solid ☐ Surface ☐

Item No.	Laboratory Work Order No.	Sample ID/Location	Date	Time	Water	Solid	Others	Ammonia	m Bas	phenols	Turn Around Time	No. of container	Container Type	PRESERVATION	Remarks
1	75676.01	EFF-01-15	1/15/15	1235	WW			X	X	X		3			2P + 1LG
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															

Relinquished by (Signature and Printed Name):	Date / Time	Received by (Signature and Printed Name):	Date / Time
[signature]	01/16/15 1340	Jean Claude	01/16/15 1340

Turn Around Time (TAT)
☐ A < 24 Hrs or Same Day TAT
☐ B = Next Workday
☐ C = 2 Workdays
☐ D = 3 Workdays
☐ E = Routine 5-7 Workdays
TAT Starts at 8 AM the following day if samples received after 3:00 PM.

Special Instruction: 5 DAY TAT

Samples will be disposed in 45 days upon receipt and records will be destroyed in 5 years upon submission of final report.
Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs = 200% Next Day = 100% 2 Workdays = 50% 3 Workdays = 35% 4 Workdays = 20%
Custom EDD formats will be an additional 3% of the total project price.
A 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. ASSET Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 Days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives: H = HCl, N = HNO3, S = H2SO4, C = 4°C, Z = Zn(AC)2, O = NaOH, T = Na2S2O3, Others/Specify:

Container Type: T = Tube, V = VOA, P = Pint, J = Jar, B = Tedlar, G = Glass, M = Metal, P = Plastic, C = Can

White = Laboratory Copy
Yellow = Customer's Copy

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840
Acct #:

Field Sampler: James Dye

19-Jan-15

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				EPA 420.1	SM 5540 C	SM4500-NH3C
N014406-001A / EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	16OZP			1
N014406-001C / EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	32OZP		1	
N014406-001I / EFF-01-15	Wastewater	1/15/2015 12:35:00 PM	32OZA	1		

General Comments: Please email sample receipt acknowledgement to the PM.

Please use PO#: N14406A For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by: 5day TAT

Please analyze for Ammonia, Phenols and Surfactants.

	Date/Time		Date/Time
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	

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Ordered By

ASSET Laboratories **3151-3153 W Post Road** **Las Vegas, NV 89118-**	**Project ID: N014406** **Date Received 01/16/2015** **Date Reported 01/20/2015**

Telephone: (702)307-2659
Attention: Marlon Cartin

Job Number	Order Date	Client
75676	01/16/2015	ASSET

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 1 samples with the following specification on 01/16/2015.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
75676.01	EFF-01-15	01/15/2015	Aqueous	2

Method ^ Submethod	*Req Date*	*Priority*	*TAT*	*Units*
420.1	01/23/2015	2	Normal	mg/L
SM-4500-NH3-C	01/23/2015	2	Normal	mg/L
SM-5540C	01/23/2015	2	Normal	mg/L

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

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ANALYTICAL RESULTS

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attn: Marlon Cartin
Page: **2**

Project ID: N014406
Project Name: N14406A

AETL Job Number	Submitted	Client
75676	01/16/2015	ASSET

Method: 420.1, Phenolics, Total Recoverable, Spectrophotometric, Manual

QC Batch No: 011915-1

Our Lab I.D.			Method Blank	**75676.01**			
Client Sample I.D.				EFF-01-15			
Date Sampled				**01/15/2015**			
Date Prepared			**01/19/2015**	**01/19/2015**			
Preparation Method			**420.1**	**420.1**			
Date Analyzed			**01/19/2015**	**01/19/2015**			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Phenolic compounds as phenol	**0.15**	**0.30**	**ND**	**ND**			

QUALITY CONTROL REPORT

QC Batch No: 011915-1; Dup or Spiked Sample: 75676.01; LCS: Clean Water; QC Prepared: 01/19/2015; QC Analyzed: 01/19/2015; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Phenol	**0.00**	**0.200**	**0.180**	**90.0**	**0.200**	**0.187**	**93.6**	**3.9**	**80-120**	**<15**

QC Batch No: 011915-1; Dup or Spiked Sample: 75676.01; LCS: Clean Water; QC Prepared: 01/19/2015; QC Analyzed: 01/19/2015; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Phenol	**0.200**	**0.174**	**86.8**	**0.200**	**0.178**	**89.0**	**2.5**	**80-120**	**<20**	

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ANALYTICAL RESULTS

Ordered By

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Las Vegas, NV 89118-

Telephone: (702)307-2659
Attn: Marlon Cartin
Page: **3**

Project ID: N014406
Project Name: N14406A

AETL Job Number	Submitted	Client
75676	01/16/2015	ASSET

Method: SM-4500-NH3-C, Ammonia by Nesslerization Method

QC Batch No: 011915-1

Our Lab I.D.			Method Blank	**75676.01**			
Client Sample I.D.				EFF-01-15			
Date Sampled				**01/15/2015**			
Date Prepared			**01/19/2015**	**01/19/2015**			
Preparation Method			**SM4500NH3C**	**SM4500NH3C**			
Date Analyzed			**01/19/2015**	**01/19/2015**			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Ammonia as Nitrogen	**0.05**	**0.10**	**ND**	**ND**			

QUALITY CONTROL REPORT

QC Batch No: 011915-1; Dup or Spiked Sample: 75676.01; LCS: Clean Water; QC Prepared: 01/19/2015; QC Analyzed: 01/19/2015; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Ammonia as Nitrogen	**0.00**	**0.500**	**0.491**	**98.2**	**0.500**	**0.488**	**97.6**	**<1**	**80-120**	**<15**

QC Batch No: 011915-1; Dup or Spiked Sample: 75676.01; LCS: Clean Water; QC Prepared: 01/19/2015; QC Analyzed: 01/19/2015; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Ammonia as Nitrogen	**0.500**	**0.488**	**97.6**	**0.500**	**0.483**	**96.6**	**1.0**	**80-120**	**<15**	

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ANALYTICAL RESULTS

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Las Vegas, NV 89118-

Telephone: (702)307-2659
Attn: Marlon Cartin
Page: **4**

Project ID: N014406
Project Name: N14406A

AETL Job Number	Submitted	Client
75676	01/16/2015	ASSET

Method: SM-5540C, Methylene Blue Active Substances (MBAS)

QC Batch No: 011615-1

Our Lab I.D.			Method Blank	**75676.01**			
Client Sample I.D.				EFF-01-15			
Date Sampled				**01/15/2015**			
Date Prepared			**01/16/2015**	**01/16/2015**			
Preparation Method			**SM5540C**	**SM5540C**			
Date Analyzed			**01/16/2015**	**01/16/2015**			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Surfactants (MBAS)	**0.05**	**0.05**	**ND**	**ND**			

QUALITY CONTROL REPORT

QC Batch No: 011615-1; Dup or Spiked Sample: 75669.05; LCS: Clean Water; QC Prepared: 01/16/2015; QC Analyzed: 01/16/2015; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Surfactants (MBAS)	**0.00**	**0.500**	**0.510**	**102**	**0.500**	**0.495**	**99.0**	**3.0**	**80-120**	**<15**

QC Batch No: 011615-1; Dup or Spiked Sample: 75669.05; LCS: Clean Water; QC Prepared: 01/16/2015; QC Analyzed: 01/16/2015; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Surfactants (MBAS)	**0.500**	**0.485**	**97.0**	**0.500**	**0.492**	**98.4**	**1.4**	**80-120**	**<15**	

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

February 18, 2015

Dan Jablonski
CH2MHill
1000 Wilshire Blvd.
Los Angeles, CA 90017

TEL:
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014651

RE: SFPP - Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on February 12, 2015 by ASSET Laboratories . 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,

Nancy Liburdi for

Glen Gesmundo
QA Manager

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 were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Subcontracted Test:

Phenol was subcontracted to AETL - Burbank, CA .

Analytical Comments for EPA 200.8:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Copper on QC samples N014636-001B-MS and N014636-001B-MSD possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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P: 562.219.7435 F: 562.219.7436

NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

ASSET Laboratories

Date: *18-Feb-15*

CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N014651
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014651-001A	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001B	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001C	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001D	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001E	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001F	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001G	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001H	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015
N014651-001I	EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	2/12/2015	2/18/2015

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P: 562.219.7435 F: 562.219.7436

NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Feb-15*

CLIENT: CH2MHill
Lab Order: N014651
Project: SFPP - Norwalk Site
Lab ID: N014651-001

Client Sample ID: EFF-02-10
Collection Date: 2/10/2015 2:30:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL NON-FILTERABLE RESIDUE							
			SM2540D				
RunID: **WETCHEM_150212B** QC Batch: **49686**				PrepDate:	**2/12/2015**		Analyst: **LR**
Suspended Solids (Residue, Non-Filterable)	ND	10	10		mg/L	1	2/12/2015 12:30 PM
SETTLEABLE MATTER							
			SM2540F				
RunID: **WETCHEM_150212C** QC Batch: **49688**				PrepDate:	**2/12/2015**		Analyst: **QBM**
Settleable Matter	ND	0.10	0.10		ml/L	1	2/12/2015
HEXANE EXTRACTABLE MATERIAL (HEM)							
			EPA 1664 _HEM				
RunID: **WETCHEM_150213A** QC Batch: **49696**				PrepDate:	**2/13/2015**		Analyst: **LR**
Oil & Grease	ND	0.86	4.3		mg/L	1	2/13/2015 01:00 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150212A** QC Batch: **P15VW022**				PrepDate:			Analyst: **QBM**
1,1-Dichloroethane	ND	0.054	0.50		ug/L	1	2/12/2015 11:51 AM
1,2-Dichloroethane	ND	0.044	0.50		ug/L	1	2/12/2015 11:51 AM
Benzene	ND	0.048	1.0		ug/L	1	2/12/2015 11:51 AM
Ethylbenzene	ND	0.036	1.0		ug/L	1	2/12/2015 11:51 AM
m,p-Xylene	ND	0.14	1.0		ug/L	1	2/12/2015 11:51 AM
MTBE	ND	0.098	1.0		ug/L	1	2/12/2015 11:51 AM
o-Xylene	ND	0.042	1.0		ug/L	1	2/12/2015 11:51 AM
Tert-Butanol	ND	0.40	5.0		ug/L	1	2/12/2015 11:51 AM
Toluene	ND	0.025	2.0		ug/L	1	2/12/2015 11:51 AM
Xylenes, Total	ND	1.5	2.0		ug/L	1	2/12/2015 11:51 AM
Surr: 1,2-Dichloroethane-d4	108	0	72-119		%REC	1	2/12/2015 11:51 AM
Surr: 4-Bromofluorobenzene	99.6	0	76-119		%REC	1	2/12/2015 11:51 AM
Surr: Dibromofluoromethane	109	0	85-115		%REC	1	2/12/2015 11:51 AM
Surr: Toluene-d8	102	0	81-120		%REC	1	2/12/2015 11:51 AM
TPH EXTRACTABLE BY GC/FID							
		EPA 3510C	**EPA 8015B**				
RunID: **GC3_150213A** QC Batch: **49689**				PrepDate:	**2/13/2015**		Analyst: **MDM**
TPH-Diesel (C13-C22)	ND	15	25		ug/L	1	2/13/2015 01:39 PM
TPH-Oil (C23-C36)	ND	14	25		ug/L	1	2/13/2015 01:39 PM
Surr: Octacosane	75.1	0	26-152		%REC	1	2/13/2015 01:39 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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

CLIENT: CH2MHill
Lab Order: N014651
Project: SFPP - Norwalk Site
Lab ID: N014651-001

Client Sample ID: EFF-02-10
Collection Date: 2/10/2015 2:30:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC/FID							
	EPA 3510C			**EPA 8015B**			
RunID: **GC3_150213A**	QC Batch: **49689**			PrepDate:	**2/13/2015**		Analyst: **MDM**
Surr: p-Terphenyl	75.0	0	57-132		%REC	1	2/13/2015 01:39 PM
GASOLINE RANGE ORGANICS BY GC/FID							
			EPA 8015B				
RunID: **GC4_150212A**	QC Batch: **E15VW010**			PrepDate:			Analyst: **QBM**
TPH-Gasoline (C4-C12)	ND	16	50		ug/L	1	2/12/2015 11:27 AM
Surr: Chlorobenzene - d5	113	0	74-138		%REC	1	2/12/2015 11:27 AM
MERCURY BY COLD VAPOR TECHNIQUE							
			EPA 245.1				
RunID: **AA1_150213B**	QC Batch: **49691**			PrepDate:	**2/13/2015**		Analyst: **CEI**
Mercury	ND	0.018	0.050		µg/L	1	2/13/2015 03:48 PM
TOTAL METALS BY COLLISION/REACTION CELL ICPMS							
			EPA 200.8				
RunID: **ICP7_150212A**	QC Batch: **49683**			PrepDate:	**2/12/2015**		Analyst: **CEI**
Selenium	ND	0.069	0.50		µg/L	1	2/12/2015 04:05 PM
TOTAL METALS BY ICPMS							
			EPA 200.8				
RunID: **ICP7_150212A**	QC Batch: **R97994**			PrepDate:			Analyst: **CEI**
Copper	ND	0.040	0.50		µg/L	1	2/12/2015 04:05 PM
Lead	ND	0.011	0.50		µg/L	1	2/12/2015 04:05 PM
Thallium	0.086	0.0080	0.50	J	µg/L	1	2/12/2015 04:05 PM
Zinc	1.2	0.23	10	J	µg/L	1	2/12/2015 04:05 PM
TOTAL TPH							
	EPA 3510C			**EPA 8015B**			
RunID: **GC3_150213A**	QC Batch: **49689**			PrepDate:	**2/13/2015**		Analyst: **MDM**
Total TPH	ND	22	50		ug/L	1	2/13/2015

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.2_2540D_W

Sample ID: **MB-49686**	SampType: **MBLK**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **2/12/2015**	RunNo: **97997**
Client ID: **PBW**	Batch ID: **49686**	TestNo: **SM2540D**		Analysis Date: **2/12/2015**	SeqNo: **1932985**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	ND	10									

Sample ID: **LCS-49686**	SampType: **LCS**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **2/12/2015**	RunNo: **97997**
Client ID: **LCSW**	Batch ID: **49686**	TestNo: **SM2540D**		Analysis Date: **2/12/2015**	SeqNo: **1932986**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	912.000	10	1000	0	91.2	80	120				

Sample ID: **N014651-001E DUP**	SampType: **DUP**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **2/12/2015**	RunNo: **97997**
Client ID: **ZZZZZZ**	Batch ID: **49686**	TestNo: **SM2540D**		Analysis Date: **2/12/2015**	SeqNo: **1932988**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	ND	10						0	0	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.5_2540F_W

Sample ID: **MB-49688** SampType: **MBLK** TestCode: **160.5_2540F_** Units: **ml/L** Prep Date: **2/12/2015** RunNo: **98066**
Client ID: **PBW** Batch ID: **49688** TestNo: **SM2540F** Analysis Date: **2/12/2015** SeqNo: **1936570**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Settleable Matter	ND	0.10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 1664_HEM_W

Sample ID: **MB-49696** SampType: **MBLK** TestCode: **1664_HEM_W** Units: **mg/L** Prep Date: **2/13/2015** RunNo: **97998**
Client ID: **PBW** Batch ID: **49696** TestNo: **EPA 1664 _H** Analysis Date: **2/13/2015** SeqNo: **1932996**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	ND	4.0									

Sample ID: **LCS-49696** SampType: **LCS** TestCode: **1664_HEM_W** Units: **mg/L** Prep Date: **2/13/2015** RunNo: **97998**
Client ID: **LCSW** Batch ID: **49696** TestNo: **EPA 1664 _H** Analysis Date: **2/13/2015** SeqNo: **1932997**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	31.400	4.0	40.00	0	78.5	78	114				

Sample ID: **N014651-001A MS** SampType: **MS** TestCode: **1664_HEM_W** Units: **mg/L** Prep Date: **2/13/2015** RunNo: **97998**
Client ID: **ZZZZZZ** Batch ID: **49696** TestNo: **EPA 1664 _H** Analysis Date: **2/13/2015** SeqNo: **1932999**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	40.625	4.2	41.67	0	97.5	78	114				

Sample ID: **N014651-001A MSD** SampType: **MSD** TestCode: **1664_HEM_W** Units: **mg/L** Prep Date: **2/13/2015** RunNo: **97998**
Client ID: **ZZZZZZ** Batch ID: **49696** TestNo: **EPA 1664 _H** Analysis Date: **2/13/2015** SeqNo: **1933000**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	40.104	4.2	41.67	0	96.2	78	114	40.62	1.29	18	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_DRC

Sample ID: **MB-49683**	SampType: **MBLK**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **2/12/2015**	RunNo: **97994**
Client ID: **PBW**	Batch ID: **49683**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932739**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.50									

Sample ID: **LCS-49683**	SampType: **LCS**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **2/12/2015**	RunNo: **97994**
Client ID: **LCSW**	Batch ID: **49683**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932740**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	9.323	0.50	10.00	0	93.2	85	115				

Sample ID: **N014636-001B-MS**	SampType: **MS**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **2/12/2015**	RunNo: **97994**
Client ID: **ZZZZZZ**	Batch ID: **49683**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	11.332	0.50	10.00	2.834	85.0	75	125				

Sample ID: **N014636-001B-MSD**	SampType: **MSD**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **2/12/2015**	RunNo: **97994**
Client ID: **ZZZZZZ**	Batch ID: **49683**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932745**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	11.310	0.50	10.00	2.834	84.8	75	125	11.33	0.189	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_SFPP

Sample ID: **MB-49683**	SampType: **MBLK**	TestCode: **200.8_W_SFP**	Units: **µg/L**	Prep Date:	RunNo: **97994**
Client ID: **PBW**	Batch ID: **R97994**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.50									
Lead	ND	0.50									
Thallium	ND	0.50									
Zinc	ND	10									

Sample ID: **LCS-49683**	SampType: **LCS**	TestCode: **200.8_W_SFP**	Units: **µg/L**	Prep Date:	RunNo: **97994**
Client ID: **LCSW**	Batch ID: **R97994**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.570	0.50	10.00	0	95.7	85	115				
Lead	10.944	0.50	10.00	0	109	85	115				
Thallium	10.984	0.50	10.00	0	110	85	115				
Zinc	95.276	10	100.0	0	95.3	85	115				

Sample ID: **N014636-001B-MS**	SampType: **MS**	TestCode: **200.8_W_SFP**	Units: **µg/L**	Prep Date:	RunNo: **97994**
Client ID: **ZZZZZZ**	Batch ID: **R97994**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932857**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	3.448	0.50	10.00	0	34.5	75	125				S
Lead	10.767	0.50	10.00	0	108	75	125				
Thallium	11.253	0.50	10.00	0.06467	112	75	125				
Zinc	76.772	10	100.0	0	76.8	75	125				

Sample ID: **N014636-001B-MSD**	SampType: **MSD**	TestCode: **200.8_W_SFP**	Units: **µg/L**	Prep Date:	RunNo: **97994**
Client ID: **ZZZZZZ**	Batch ID: **R97994**	TestNo: **EPA 200.8**		Analysis Date: **2/12/2015**	SeqNo: **1932858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	3.450	0.50	10.00	0	34.5	75	125	3.448	0.0581	20	S
Lead	10.812	0.50	10.00	0	108	75	125	10.77	0.417	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_SFPP

Sample ID: **N014636-001B-MSD** SampType: **MSD** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: RunNo: **97994**
Client ID: **ZZZZZZ** Batch ID: **R97994** TestNo: **EPA 200.8** Analysis Date: **2/12/2015** SeqNo: **1932858**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	11.269	0.50	10.00	0.06467	112	75	125	11.25	0.134	20	
Zinc	77.886	10	100.0	0	77.9	75	125	76.77	1.44	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1_W_LL

Sample ID: **MB-49691**	SampType: **MBLK**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **2/13/2015**	RunNo: **98017**
Client ID: **PBW**	Batch ID: **49691**	TestNo: **EPA 245.1**		Analysis Date: **2/13/2015**	SeqNo: **1933557**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.050									

Sample ID: **LCS-49691**	SampType: **LCS**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **2/13/2015**	RunNo: **98017**
Client ID: **LCSW**	Batch ID: **49691**	TestNo: **EPA 245.1**		Analysis Date: **2/13/2015**	SeqNo: **1933559**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.511	0.050	2.500	0	100	85	115				

Sample ID: **N014651-001G-MS**	SampType: **MS**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **2/13/2015**	RunNo: **98017**
Client ID: **ZZZZZZ**	Batch ID: **49691**	TestNo: **EPA 245.1**		Analysis Date: **2/13/2015**	SeqNo: **1933560**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.881	0.050	2.500	0	115	75	125				

Sample ID: **N014651-001G-MSD**	SampType: **MSD**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **2/13/2015**	RunNo: **98017**
Client ID: **ZZZZZZ**	Batch ID: **49691**	TestNo: **EPA 245.1**		Analysis Date: **2/13/2015**	SeqNo: **1933561**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.903	0.050	2.500	0	116	75	125	2.881	0.750	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_FP_SFPP

Sample ID: **MB-49689** SampType: **MBLK** TestCode: **8015_W_FP_** Units: **ug/L** Prep Date: **2/13/2015** RunNo: **98012**
Client ID: **PBW** Batch ID: **49689** TestNo: **EPA 8015B** **EPA 3510C** Analysis Date: **2/13/2015** SeqNo: **1933429**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	ND	25									
Surr: Octacosane	80.804		80.00		101	26	152				
Surr: p-Terphenyl	78.773		80.00		98.5	57	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_SFPPTOT

Sample ID: **MB-49689**	SampType: **MBLK**	TestCode: **8015_W_SFP**	Units: **ug/L**	Prep Date:					RunNo: **98012**		
Client ID: **PBW**	Batch ID: **49689**	TestNo: **EPA 8015B**	**EPA 3510C**	Analysis Date: **2/13/2015**					SeqNo: **1936579**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	ND	50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID: **E150212LCS** SampType: **LCS** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97983**
Client ID: **LCSW** Batch ID: **E15VW010** TestNo: **EPA 8015B** Analysis Date: **2/12/2015** SeqNo: **1931602**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	960.000	50	1000	0	96.0	67	136				
Surr: Chlorobenzene - d5	56385.000		50000		113	74	138				

Sample ID: **E150212MB1** SampType: **MBLK** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97983**
Client ID: **PBW** Batch ID: **E15VW010** TestNo: **EPA 8015B** Analysis Date: **2/12/2015** SeqNo: **1931603**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	59785.000		50000		120	74	138				

Sample ID: **N014651-001BMS** SampType: **MS** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97983**
Client ID: **ZZZZZZ** Batch ID: **E15VW010** TestNo: **EPA 8015B** Analysis Date: **2/12/2015** SeqNo: **1931605**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	909.000	50	1000	0	90.9	67	136				
Surr: Chlorobenzene - d5	55388.000		50000		111	74	138				

Sample ID: **N014651-001BMSD** SampType: **MSD** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **97983**
Client ID: **ZZZZZZ** Batch ID: **E15VW010** TestNo: **EPA 8015B** Analysis Date: **2/12/2015** SeqNo: **1931606**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	905.000	50	1000	0	90.5	67	136	909.0	0.441	30	
Surr: Chlorobenzene - d5	54657.000		50000		109	74	138		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150212LCS** SampType: **LCS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97979**
Client ID: **LCSW** Batch ID: **P15VW022** TestNo: **EPA 8260B** Analysis Date: **2/12/2015** SeqNo: **1931315**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	20.380	0.50	20.00	0	102	69	133				
1,2-Dichloroethane	20.410	0.50	20.00	0	102	69	132				
Benzene	20.270	1.0	20.00	0	101	81	122				
Ethylbenzene	20.220	1.0	20.00	0	101	73	127				
m,p-Xylene	41.780	1.0	40.00	0	104	76	128				
MTBE	20.310	1.0	20.00	0	102	65	123				
o-Xylene	20.900	1.0	20.00	0	104	80	121				
Tert-Butanol	119.450	5.0	100.0	0	119	70	130				
Toluene	20.740	2.0	20.00	0	104	77	122				
Xylenes, Total	62.680	2.0	60.00	0	104	75	125				
Surr: 1,2-Dichloroethane-d4	26.230		25.00		105	72	119				
Surr: 4-Bromofluorobenzene	26.330		25.00		105	76	119				
Surr: Dibromofluoromethane	25.660		25.00		103	85	115				
Surr: Toluene-d8	25.740		25.00		103	81	120				

Sample ID: **P150212MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97979**
Client ID: **PBW** Batch ID: **P15VW022** TestNo: **EPA 8260B** Analysis Date: **2/12/2015** SeqNo: **1931317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Benzene	ND	1.0									
Ethylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
MTBE	ND	1.0									
o-Xylene	ND	1.0									
Tert-Butanol	ND	5.0									
Toluene	ND	2.0									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	26.220		25.00		105	72	119				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150212MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97979**
Client ID: **PBW** Batch ID: **P15VW022** TestNo: **EPA 8260B** Analysis Date: **2/12/2015** SeqNo: **1931317**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	24.760		25.00		99.0	76	119				
Surr: Dibromofluoromethane	27.110		25.00		108	85	115				
Surr: Toluene-d8	25.500		25.00		102	81	120				

Sample ID: **N014651-001CMS** SampType: **MS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97979**
Client ID: **ZZZZZZ** Batch ID: **P15VW022** TestNo: **EPA 8260B** Analysis Date: **2/12/2015** SeqNo: **1931319**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	20.980	0.50	20.00	0	105	69	133				
1,2-Dichloroethane	20.240	0.50	20.00	0	101	69	132				
Benzene	20.240	1.0	20.00	0	101	81	122				
Ethylbenzene	19.580	1.0	20.00	0	97.9	73	127				
m,p-Xylene	40.300	1.0	40.00	0	101	76	128				
MTBE	19.500	1.0	20.00	0	97.5	65	123				
o-Xylene	20.080	1.0	20.00	0	100	80	121				
Tert-Butanol	109.160	5.0	100.0	0	109	70	130				
Toluene	20.060	2.0	20.00	0	100	77	122				
Xylenes, Total	60.380	2.0	60.00	0	101	75	125				
Surr: 1,2-Dichloroethane-d4	26.180		25.00		105	72	119				
Surr: 4-Bromofluorobenzene	25.990		25.00		104	76	119				
Surr: Dibromofluoromethane	26.050		25.00		104	85	115				
Surr: Toluene-d8	25.800		25.00		103	81	120				

Sample ID: **N014651-001CMSD** SampType: **MSD** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97979**
Client ID: **ZZZZZZ** Batch ID: **P15VW022** TestNo: **EPA 8260B** Analysis Date: **2/12/2015** SeqNo: **1931320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	21.630	0.50	20.00	0	108	69	133	20.98	3.05	20	
1,2-Dichloroethane	20.410	0.50	20.00	0	102	69	132	20.24	0.836	20	
Benzene	20.710	1.0	20.00	0	104	81	122	20.24	2.30	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014651
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **N014651-001CMSD** SampType: **MSD** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **97979**
Client ID: **ZZZZZZ** Batch ID: **P15VW022** TestNo: **EPA 8260B** Analysis Date: **2/12/2015** SeqNo: **1931320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	20.110	1.0	20.00	0	101	73	127	19.58	2.67	20	
m,p-Xylene	41.110	1.0	40.00	0	103	76	128	40.30	1.99	20	
MTBE	20.540	1.0	20.00	0	103	65	123	19.50	5.19	20	
o-Xylene	20.840	1.0	20.00	0	104	80	121	20.08	3.71	20	
Tert-Butanol	117.230	5.0	100.0	0	117	70	130	109.2	7.13	20	
Toluene	20.550	2.0	20.00	0	103	77	122	20.06	2.41	20	
Xylenes, Total	61.950	2.0	60.00	0	103	75	125	60.38	2.57	20	
Surr: 1,2-Dichloroethane-d4	26.460		25.00		106	72	119		0		
Surr: 4-Bromofluorobenzene	26.910		25.00		108	76	119		0		
Surr: Dibromofluoromethane	26.310		25.00		105	85	115		0		
Surr: Toluene-d8	25.610		25.00		102	81	120		0		

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

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

CHAIN OF CUSTODY RECORD

DATE: 2/10/15

PAGE: 1 OF 1

LABORATORY CLIENT: Kinder Morgan Energy Partners, Attn: Steve Defibaugh

ADDRESS: 1100 Town & Country Road

CITY: Orange, CA 92868

TEL: 714-560-4802 | FAX: 714-560-4601 | E-MAIL: james_dye@kindermorgan.com

CLIENT PROJECT NAME / NUMBER: SFPP - Norwalk Site

PROJECT CONTACT: James Dye

SAMPLER(S): (SIGNATURE)

P.O. NO.:

QUOTE NO.:

LAB USE ONLY

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ■ 48HR ☐ 72 HR ■ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS:
Report to D. Jablonski/CH2M HILL, cc: KMEP
Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195
"J" flags required/Use lowest possible detection limit - all methods.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Oil & Grease (1664)	TPH-g, toh-d, and TPH-oil (8015B)	Settleable Solids (2540F)	Total Suspended Solids (2540D)	Phenol (420.1)	BTEX, 1,1-DCA, 1,2-DCA(8260B)	MTBE and TBA, (8260B) 48HR TAT	Cu, Pb, Tl, and Zn (200.8)	Se (200.8) 48HR TAT ; Hg (245.1)48 HR TA	Cr VI (7199)			Comments
	EFF- 02-10	Effluent	2/10/15	1430	WW	17	X	X	X	X	X	X	X	X	X	X			N014651-1
																			Monthly

Relinquished by: (Signature)	2/11/15 5:15PM	Received by: (Signature)	Date: 2/11/15 Time: 5:15PM
Relinquished by: (Signature)	2/11/15 5:40PM	Received by: (Signature)	Date: 2/12/15 Time: 0940
Relinquished by: (Signature)		Received by: (Signature)	Date: Time:

Revised: 01/31/11

-0.8 °C IR2

ASSET Laboratories

Please review the checklist below. Any NO 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 (702) 307-2659.

Cooler Received/Opened On:	2/12/2015	Workorder:	N014651
Rep sample Temp (Deg C):	-0.8	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	Golden State Overnight		
Last 4 digits of Tracking No.:	7587	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated 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 ☑	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. Temperature of rep sample or Temp Blank within acceptable 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 ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: HG 2/16/2015

Reviewed By: 02/17/15

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840
Acct #:

Field Sampler: James Dye

16-Feb-15

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**EPA 420.1**		
N014651-001F / EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	32OZA	1		

General Comments: Please email sample receipt acknowledgement to the PM.

Please use PO#:N14651A For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by:Normal TAT

Please analyze for Phenolics.

		Date/Time			Date/Time
Relinquished by:		2/16/2015	**Received by:**		
Relinquished by:			**Received by:**		

SampleControl.LV@assetlaboratories.com

From: Marlon B. Cartin [marlon@assetlaboratories.com]
Sent: Friday, February 13, 2015 5:39 PM
To: Vidal.Cortes@ch2m.com
Cc: 'Sample Control'; "Glen Gesmundo"
Subject: Cr+6

Hi Vidal,

We already got the 7199 sample from Norwalk site and we will receive it here at the lab tomorrow morning. This will be the replacement sample for the one that expires because we failed to pick-up the samples on Tuesday (2/10). We will run this ASAP and report at the same time with the samples from Tuesday.

Thanks,

Marlon Cartin
Project Manager
California: 11060 Artesia Blvd., Ste. C, Cerritos, CA 90703 | **P:** 562.219.7435 | **F:** 562.219.7436
Nevada: 3151 W. Post Road, Las Vegas, NV 89118 | **P:** 702.307.2659 Ext. 410 | **F:** 702.307.2691 | **M:** 702.882.3289
www.assetlaboratories.com

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

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ASSET Laboratories

WORK ORDER Summary

13-Feb-15

WorkOrder: N014651

Client ID: CH2HI03

Project: SFPP - Norwalk Site **QC Level:** RTNE **Date Received:** 2/12/2015

Comments: Report to D. Jablonski/CH2M HILL, cc:KMEP

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N014651-001A	EFF-02-10	2/10/2015 2:30:00 PM	2/19/2015	Wastewater		Oil and Grease Sample Prep	☐	☐	☐	WW
			2/19/2015		EPA 1664 _HEM	Hexane Extractable Material (HEM)	☐	☐	☐	WW
N014651-001B			2/19/2015		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	☐	☐	☐	WW
N014651-001C			2/16/2015		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	WW
N014651-001D			2/19/2015		SM2540F	SETTLEABLE MATTER	☐	☐	☐	WW
N014651-001E			2/19/2015		SM2540D	TOTAL NON-FILTERABLE RESIDUE	☐	☐	☐	WW
			2/19/2015			Total Suspended Solids Prep	☐	☐	☐	WW
N014651-001F			2/19/2015		EPA 420.1	PHENOLICS	☐	☐	☑	SUB
N014651-001G			2/16/2015			AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			2/16/2015		EPA 200.8	TOTAL METALS BY COLLISION/REACTION CELL ICPMS	☐	☐	☐	WW
			2/16/2015		EPA 200.8	TOTAL METALS BY ICPMS	☐	☐	☐	WW
			2/16/2015		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE	☐	☐	☐	WW
			2/16/2015			MERCURY PREP	☐	☐	☐	WW
N014651-001H			2/19/2015		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	☐	☐	☐	WW
			2/19/2015		EPA 8015B	TPH EXTRACTABLE BY GC/FID	☐	☐	☐	WW
N014651-001I			2/19/2015		EPA 7199	Hexavalent Chromium by IC	☑	☐	☐	WW
N014651-002A	FOLDER		2/16/2015		Folder	Folder	☐	☐	☐	LAB

GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

Ship From
ASSET LABORATORIES
MOLKY BRAR
11060 ARTESIA BLVD., STE. C
CERRITOS, CA 90703

Ship To
ATL INC
MARLON CARTIN
3151 W. POST RD.,
LAS VEGAS, NV 89118

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 526927587

PDS

LVS
LAS VEGAS

N89103A

34056632

Print Date: 2/11/2015 6:04 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attention: Marlon Cartin

Number of Pages	**2**
Date Received	**02/12/2015**
Date Reported	**02/17/2015**

Job Number	Order Date	Client
75960	02/12/2015	ASSET

Project ID: N014651
Project Name: PO# 14651A
Site: SFPP-Norwalk Site

Enclosed please find results of analyses of 1 waste water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

AETL

75960

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.3072691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436
www.assetlaboratories.com

Client: Asset Laboratories	Report to:	Bill to:	EDD Requirement: Excel EDD ☐ Geotracker ☐ Labspec ☐ Others ☐ Specify:
Address:	Company:	Address:	QA/QC: RTNE ☐ RWQCB ☐ CalTrans ☐ Level III ☐ LEVEL IV ☐ Regulatory ☐ Specify State:
Address:	Email:		Sample Receipt Condition: Y / N — 1. Chilled ☐☐ 2. Headspace ☐☐ 3. Container Intact ☐☐ 4. Seal Present ☐☐ 5. IR number 6. Method of Cooling Sample Temp:
Phone: Fax:	Address:	Email to: PO#	
Submitted By: Molky Brar		Phone: Fax:	Global ID:
Title:	Phone: Fax:		
Signature: Date:	Sampled By:		
I hereby authorize ASSET Labs to perform the tests indicated below:	I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.		
Project Name: SFPP-Norwalk site	Signature: Date:		
Project Number:			

Matrix: Ground ☐ Sediment ☐ Potable ☐ Soil ☐ NPDES ☐ Other Solid ☐ Surface ☐

Analyses Requested: Phenol (420.1)

Courier:

Tracking No.

Item No.	Laboratory Work Order No.	Sample ID/Location	Date	Time	Water	Solid	Others	Phenol (420.1)	Turn Around Time	No. of container	Container Type	PRESERVATION	Remarks
1	75960.01	EFF-02-10	2/10/15	14:30	WW			X	E	1	G		1 Liter Amber
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Relinquished by (Signature and Printed Name): Date / Time: 02/12/15 1220

Received by (Signature and Printed Name): Jean Claude Date / Time: 02/12/15 1220

Relinquished by (Signature and Printed Name): Date / Time

Received by (Signature and Printed Name): Date / Time

Relinquished by (Signature and Printed Name): Date / Time

Received by (Signature and Printed Name): Date / Time

Turn Around Time (TAT)
- ☐ A < 24 Hrs or Same Day TAT
- ☐ B = Next Workday
- ☐ C = 2 Workdays
- ☐ D = 3 Workdays
- ☒ E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00 PM.

Special Instruction:

Preservatives: H = HCl | N = HNO3 | S = H2SO4 | C = 4°C | Z = Zn(AC)2 | O = NaOH | T = Na2S2O3 | Others/Specify:

Container Type: T = Tube | V = VOA | P = Pint | J = Jar | B = Tedlar | G = Glass | M = Metal | P = Plastic | C = Can

Terms

Samples will be disposed in 45 days upon receipt and records will be destroyed in 5 years upon submission of final report.
Regular TAT is 5-7 business days, surcharges will apply for rush analysis
Less than 24 Hrs = 200% Next Day = 100% 2 Workdays = 50% 3 Workdays = 35% 4 Workdays = 20%
Custom EDD formats will be an additional 3% of the total project price.
Level 3 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.

5. Trip Blanks and Equipment Blanks are billable sample.
6. ASSET Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 Days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

White = Laboratory Copy

Yellow = Customer's Copy

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840
Acct #:

Field Sampler: James Dye

16-Feb-15

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**EPA 420.1**		
N014651-001F / EFF-02-10	Wastewater	2/10/2015 2:30:00 PM	32OZA	1		

General Comments: Please email sample receipt acknowledgement to the PM.
Please use PO#:N14651A For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by:Normal TAT
Please analyze for Phenolics.

		Date/Time			Date/Time
Relinquished by:		2/16/2015	**Received by:**		
Relinquished by:			**Received by:**		

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Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attention: Marlon Cartin

Project ID: N014651
Date Received 02/12/2015
Date Reported 02/17/2015

Job Number	Order Date	Client
75960	02/12/2015	ASSET

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 1 samples with the following specification on 02/12/2015.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
75960.01	N014651-001F	02/10/2015	Aqueous	1

Method ^ Submethod	Req Date	Priority	TAT	Units
420.1	02/19/2015	2	Normal	mg/L

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.

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ANALYTICAL RESULTS

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attn: Marlon Cartin

Site

SFPP-Norwalk Site

Page: **2**

Project ID: N014651
Project Name: PO# 14651A

AETL Job Number	Submitted	Client
75960	02/12/2015	ASSET

Method: 420.1, Phenolics, Total Recoverable, Spectrophotometric, Manual

QC Batch No: 021215-1

Our Lab I.D.			Method Blank	75960.01			
Client Sample I.D.				N014651-001 F			
Date Sampled				02/10/2015			
Date Prepared			02/12/2015	02/12/2015			
Preparation Method			420.1	420.1			
Date Analyzed			02/12/2015	02/12/2015			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Phenolic compounds as phenol	0.15	0.30	ND	ND			

QUALITY CONTROL REPORT

QC Batch No: 021215-1; Dup or Spiked Sample: 75960.01; LCS: Clean Water; QC Prepared: 02/12/2015; QC Analyzed: 02/12/2015; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Phenol	0.00	0.500	0.405	81.0	0.500	0.418	83.6	3.2	80-120	<15

QC Batch No: 021215-1; Dup or Spiked Sample: 75960.01; LCS: Clean Water; QC Prepared: 02/12/2015; QC Analyzed: 02/12/2015; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Phenol	0.500	0.452	90.4	0.500	0.443	88.6	2.0	80-120	<20	

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street, Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

February 18, 2015

Dan Jablonski
CH2MHill
1000 Wilshire Blvd.
Los Angeles, CA 90017

TEL:
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014679

RE: SFPP-Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on February 14, 2015 by ASSET Laboratories . 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,

Nancy Liburdi for

Glen Gesmundo
QA Manager

CLIENT: CH2MHill
Project: SFPP-Norwalk Site
Lab Order: N014679

CASE NARRATIVE

SAMPLE RECEIVING/GENERAL COMMENTS:

Sample was 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.

Sample was analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

ASSET Laboratories

Date: *18-Feb-15*

CLIENT: CH2MHill
Project: SFPP-Norwalk Site
Lab Order: N014679
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014679-001A	EFF-02-13	Wastewater	2/13/2015 11:25:00 AM	2/14/2015	2/18/2015

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CALIFORNIA
11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436

NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *18-Feb-15*

CLIENT: CH2MHill
Lab Order: N014679
Project: SFPP-Norwalk Site
Lab ID: N014679-001

Client Sample ID: EFF-02-13
Collection Date: 2/13/2015 11:25:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM BY IC							
			EPA 7199				
RunID: **IC6_150214A**	QC Batch: **R98024**			PrepDate:			Analyst: **RB**
Hexavalent Chromium	0.56	0.016	0.20		µg/L	1	2/14/2015 10:10 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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

CLIENT: CH2MHill
Work Order: N014679
Project: SFPP-Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 7199_WPGE

Sample ID: **MB-R98024**	SampType: **MBLK**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **98024**
Client ID: **PBW**	Batch ID: **R98024**	TestNo: **EPA 7199**		Analysis Date: **2/14/2015**	SeqNo: **1933802**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R98024**	SampType: **LCS**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **98024**
Client ID: **LCSW**	Batch ID: **R98024**	TestNo: **EPA 7199**		Analysis Date: **2/14/2015**	SeqNo: **1933803**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.055	0.20	5.000	0	101	90	110				

Sample ID: **N014605-007A-MS**	SampType: **MS**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **98024**
Client ID: **ZZZZZZ**	Batch ID: **R98024**	TestNo: **EPA 7199**		Analysis Date: **2/14/2015**	SeqNo: **1933806**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	63.109	1.0	25.00	37.54	102	85	115				

Sample ID: **N014605-007A-MSD**	SampType: **MSD**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **98024**
Client ID: **ZZZZZZ**	Batch ID: **R98024**	TestNo: **EPA 7199**		Analysis Date: **2/14/2015**	SeqNo: **1933807**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	63.172	1.0	25.00	37.54	103	85	115	63.11	0.101	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

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

CHAIN OF CUSTODY RECORD

DATE: 2/13/15

PAGE: 1 OF 1

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

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

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ■ 48HR ☐ 72 HR ■ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Report to D. Jablonski/CH2M HILL, cc: KMEP
Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195
"J" flags required/Use lowest possible detection limit - all methods.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Oil & Grease (1664)	TPH-g, toh-d, and TPH-oil (8015B)	Settleable Solids (2540F)	Total Suspended Solids (2540D)	Phenol (420.1)	BTEX, 1,1-DCA, 1,2-DCA (8260B)	MTBE and TBA, (8260B) 48HR TAT	Cu, Pb, Ti, and Zn (200.8)	Se (200.8) 48HR TAT ; Hg (245.1)48 HR TA	Cr VI (7199)			Comments
					1														
	EFF- 02-13	Effluent	2/13/15	1125	WW											X			N0146791
																			Monthly

Relinquished by: (Signature)	2/13/pm 3:45PM	Received by: (Signature)	Date: 2/13/15 Time: 3:45PM
Relinquished by: (Signature)	2/13/15 4:03PM	Received by: (Signature)	Date: 2/14/15 Time: 0810
Relinquished by: (Signature)		Received by: (Signature)	Date: Time:

Revised: 01/31/11

1.0°C ICE IR#1 WS TEMP BLANK

ASSET Laboratories

Please review the checklist below. Any NO 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 (702) 307-2659.

Cooler Received/Opened On:	2/14/2015	Workorder:	N014679
Rep sample Temp (Deg C):	1.0	IR Gun ID:	1
Temp Blank:	☑ Yes ☐ No		
Carrier name:	Golden State Overnight		
Last 4 digits of Tracking No.:	2524	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated 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 ☑	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. Temperature of rep sample or Temp Blank within acceptable 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 ☑
15. Did the bottle labels indicate correct preservatives used?	Yes ☐	No ☐	NA ☑
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: MBC For: 2/16/2015

Reviewed By: 02/17/15

ASSET Laboratories

WORK ORDER Summary

16-Feb-15

WorkOrder: N014679

Client ID: CH2HI03

Project: SFPP-Norwalk Site **QC Level:** RTNE **Date Received:** 2/14/2015

Comments: Report to D. Jablonski/CH2M HILL, cc:KMEP

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N014679-001A	EFF-02-13	2/13/2015 11:25:00 AM	2/23/2015	Wastewater	EPA 7199	Hexavalent Chromium by IC	☐	☐	☐	WW
N014679-002A	FOLDER		2/23/2015		Folder	Folder	☐	☐	☐	LAB

GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

Ship From
ASSET LABORATORIES
MOLKY BRAR
11060 ARTESIA BLVD., STE. C
CERRITOS, CA 90703

Ship To
ATL INC
MARLON CARTIN
3151 W. POST RD.,
LAS VEGAS, NV 89118

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:
HOLD FOR PICK UP
Signature Type: Required

Tracking #: 526952524

SDS

LVS

LAS VEGAS

N89103A

34158583

Print Date: 2/13/2015 4:22 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

March 11, 2015

Dan Jablonski
CH2MHill
1000 Wilshire Blvd.
Los Angeles, CA 90017

TEL:
FAX:

CA-ELAP No.: 2676
NV Cert. No.: NV-00922

Workorder No.: N014853

RE: SFPP - Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on March 04, 2015 by ASSET Laboratories . 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,

Glen Gesmundo
QA Manager

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 were analyzed within method holding time.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Subcontracted Test:

Phenol was subcontracted to AETL - Burbank, CA .

Analytical Comments for EPA 8015B DRO:

RPD for Matrix Spike (MS)/Matrix Spike Duplicate (MSD) is outside criteria on QC samples N014853-001H-MS and N014853-001H-MSD possibly due to matrix interference; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

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ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CALIFORNIA
11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436

NEVADA
3151 W. Post Rd., Las Vegas, NV 89118
P: 702.307.2659 F: 702.307.2691

ASSET Laboratories

Date: *11-Mar-15*

CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N014853
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N014853-001A	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001B	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001C	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001D	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001E	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001F	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001G	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001H	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015
N014853-001I	EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	3/4/2015	3/11/2015

ASSET Laboratories

ANALYTICAL RESULTS

Print Date: *11-Mar-15*

CLIENT: CH2MHill
Lab Order: N014853
Project: SFPP - Norwalk Site
Lab ID: N014853-001

Client Sample ID: EFF-03-03
Collection Date: 3/3/2015 2:15:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL NON-FILTERABLE RESIDUE							
			SM2540D				
RunID: **WETCHEM_150304D** QC Batch: **49830**				PrepDate:		**3/4/2015**	Analyst: **LR**
Suspended Solids (Residue, Non-Filterable)	ND	10	10		mg/L	1	3/4/2015 08:31 AM
SETTLEABLE MATTER							
			SM2540F				
RunID: **WETCHEM_150304K** QC Batch: **49893**				PrepDate:		**3/4/2015**	Analyst: **QBM**
Settleable Matter	ND	0.10	0.10		ml/L	1	3/4/2015
HEXANE EXTRACTABLE MATERIAL (HEM)							
			EPA 1664 _HEM				
RunID: **WETCHEM_150309A** QC Batch: **49869**				PrepDate:		**3/9/2015**	Analyst: **LR**
Oil & Grease	ND	0.88	4.4		mg/L	1	3/9/2015 09:30 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS							
			EPA 8260B				
RunID: **MS5_150305A** QC Batch: **P15VW034**				PrepDate:			Analyst: **QBM**
1,1-Dichloroethane	ND	0.054	0.50		ug/L	1	3/5/2015 12:25 PM
1,2-Dichloroethane	ND	0.044	0.50		ug/L	1	3/5/2015 12:25 PM
Benzene	ND	0.048	1.0		ug/L	1	3/5/2015 12:25 PM
Ethylbenzene	ND	0.036	1.0		ug/L	1	3/5/2015 12:25 PM
m,p-Xylene	ND	0.14	1.0		ug/L	1	3/5/2015 12:25 PM
MTBE	ND	0.098	1.0		ug/L	1	3/5/2015 12:25 PM
o-Xylene	ND	0.042	1.0		ug/L	1	3/5/2015 12:25 PM
Tert-Butanol	ND	0.40	5.0		ug/L	1	3/5/2015 12:25 PM
Toluene	ND	0.025	2.0		ug/L	1	3/5/2015 12:25 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	3/5/2015 12:25 PM
Surr: 1,2-Dichloroethane-d4	91.0	0	72-119		%REC	1	3/5/2015 12:25 PM
Surr: 4-Bromofluorobenzene	98.7	0	76-119		%REC	1	3/5/2015 12:25 PM
Surr: Dibromofluoromethane	94.4	0	85-115		%REC	1	3/5/2015 12:25 PM
Surr: Toluene-d8	99.0	0	81-120		%REC	1	3/5/2015 12:25 PM
TPH EXTRACTABLE BY GC/FID							
		EPA 3510C	**EPA 8015B**				
RunID: **GC1_150309A** QC Batch: **49866**				PrepDate:		**3/9/2015**	Analyst: **MDM**
TPH-Diesel (C13-C22)	ND	15	25		ug/L	1	3/9/2015 08:50 PM
TPH-Oil (C23-C36)	ND	14	25		ug/L	1	3/9/2015 08:50 PM
Surr: Octacosane	94.3	0	26-152		%REC	1	3/9/2015 08:50 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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

CLIENT: CH2MHill
Lab Order: N014853
Project: SFPP - Norwalk Site
Lab ID: N014853-001

Client Sample ID: EFF-03-03
Collection Date: 3/3/2015 2:15:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC/FID							
	EPA 3510C			**EPA 8015B**			
RunID: **GC1_150309A**	QC Batch: **49866**			PrepDate:		**3/9/2015**	Analyst: **MDM**
Surr: p-Terphenyl	85.9	0	57-132		%REC	1	3/9/2015 08:50 PM
GASOLINE RANGE ORGANICS BY GC/FID							
			EPA 8015B				
RunID: **GC4_150304A**	QC Batch: **E15VW015**			PrepDate:			Analyst: **QBM**
TPH-Gasoline (C4-C12)	ND	16	50		ug/L	1	3/4/2015 12:10 PM
Surr: Chlorobenzene - d5	115	0	74-138		%REC	1	3/4/2015 12:10 PM
HEXAVALENT CHROMIUM BY IC							
			EPA 7199				
RunID: **IC6_150304A**	QC Batch: **R99304**			PrepDate:			Analyst: **RB**
Hexavalent Chromium	1.1	0.016	0.20		µg/L	1	3/4/2015 10:50 AM
MERCURY BY COLD VAPOR TECHNIQUE							
			EPA 245.1				
RunID: **AA1_150305B**	QC Batch: **49848**			PrepDate:		**3/5/2015**	Analyst: **CEI**
Mercury	ND	0.018	0.050		µg/L	1	3/5/2015 05:49 PM
TOTAL METALS BY COLLISION/REACTION CELL ICPMS							
			EPA 200.8				
RunID: **ICP7_150304A**	QC Batch: **49832**			PrepDate:		**3/4/2015**	Analyst: **CEI**
Selenium	ND	0.069	0.50		µg/L	1	3/4/2015 01:41 PM
TOTAL METALS BY ICPMS							
			EPA 200.8				
RunID: **ICP7_150304A**	QC Batch: **49832**			PrepDate:		**3/4/2015**	Analyst: **CEI**
Copper	ND	0.040	0.50		µg/L	1	3/4/2015 01:41 PM
Lead	ND	0.011	0.50		µg/L	1	3/4/2015 01:41 PM
Thallium	0.067	0.0080	0.50	J	µg/L	1	3/4/2015 01:41 PM
Zinc	1.1	0.23	10	J	µg/L	1	3/4/2015 01:41 PM
TOTAL TPH							
	EPA 3510C			**EPA 8015B**			
RunID: **GC1_150309A**	QC Batch: **49866**			PrepDate:		**3/9/2015**	Analyst: **MDM**
Total TPH	ND	22	51		ug/L	1	3/9/2015 08:50 PM

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 interference
DO	Surrogate Diluted Out

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.2_2540D_W

Sample ID: **MB-49830**	SampType: **MBLK**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **3/4/2015**	RunNo: **99288**
Client ID: **PBW**	Batch ID: **49830**	TestNo: **SM2540D**		Analysis Date: **3/4/2015**	SeqNo: **1946086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	ND	10									

Sample ID: **LCS-49830**	SampType: **LCS**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **3/4/2015**	RunNo: **99288**
Client ID: **LCSW**	Batch ID: **49830**	TestNo: **SM2540D**		Analysis Date: **3/4/2015**	SeqNo: **1946087**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	921.000	10	1000	0	92.1	80	120				

Sample ID: **N014853-001E DUP**	SampType: **DUP**	TestCode: **160.2_2540D**	Units: **mg/L**	Prep Date: **3/4/2015**	RunNo: **99288**
Client ID: **ZZZZZZ**	Batch ID: **49830**	TestNo: **SM2540D**		Analysis Date: **3/4/2015**	SeqNo: **1946090**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter	ND	10						0	0	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.5_2540F_W

Sample ID: **MB-49893** SampType: **MBLK** TestCode: **160.5_2540F_** Units: **ml/L** Prep Date: **3/4/2015** RunNo: **99383**
Client ID: **PBW** Batch ID: **49893** TestNo: **SM2540F** Analysis Date: **3/4/2015** SeqNo: **1950107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Settleable Matter	ND	0.10									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 1664_HEM_W

Sample ID: **MB-49869**	SampType: **MBLK**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **3/9/2015**	RunNo: **99345**
Client ID: **PBW**	Batch ID: **49869**	TestNo: **EPA 1664 _H**		Analysis Date: **3/9/2015**	SeqNo: **1948006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	ND	4.0									

Sample ID: **LCS-49869**	SampType: **LCS**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **3/9/2015**	RunNo: **99345**
Client ID: **LCSW**	Batch ID: **49869**	TestNo: **EPA 1664 _H**		Analysis Date: **3/9/2015**	SeqNo: **1948007**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	34.600	4.0	40.00	0	86.5	78	114				

Sample ID: **N014853-001A MS**	SampType: **MS**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **3/9/2015**	RunNo: **99345**
Client ID: **ZZZZZZ**	Batch ID: **49869**	TestNo: **EPA 1664 _H**		Analysis Date: **3/9/2015**	SeqNo: **1948009**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	44.111	4.4	40.00	0	110	78	114				

Sample ID: **N014853-001A MSD**	SampType: **MSD**	TestCode: **1664_HEM_W**	Units: **mg/L**	Prep Date: **3/9/2015**	RunNo: **99345**
Client ID: **ZZZZZZ**	Batch ID: **49869**	TestNo: **EPA 1664 _H**		Analysis Date: **3/9/2015**	SeqNo: **1948010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	37.555	4.4	40.00	0	93.9	78	114	44.11	16.1	18	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_DRC

Sample ID: **MB-49832**	SampType: **MBLK**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **3/4/2015**	RunNo: **99293**
Client ID: **PBW**	Batch ID: **49832**	TestNo: **EPA 200.8**		Analysis Date: **3/4/2015**	SeqNo: **1946244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.50									

Sample ID: **LCS-49832**	SampType: **LCS**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **3/4/2015**	RunNo: **99293**
Client ID: **LCSW**	Batch ID: **49832**	TestNo: **EPA 200.8**		Analysis Date: **3/4/2015**	SeqNo: **1946245**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.886	0.50	10.00	0	88.9	85	115				

Sample ID: **N014853-001G-MS**	SampType: **MS**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **3/4/2015**	RunNo: **99293**
Client ID: **ZZZZZZ**	Batch ID: **49832**	TestNo: **EPA 200.8**		Analysis Date: **3/4/2015**	SeqNo: **1946249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.689	0.50	10.00	0	86.9	75	125				

Sample ID: **N014853-001G-MSD**	SampType: **MSD**	TestCode: **200.8_W_DR**	Units: **µg/L**	Prep Date: **3/4/2015**	RunNo: **99293**
Client ID: **ZZZZZZ**	Batch ID: **49832**	TestNo: **EPA 200.8**		Analysis Date: **3/4/2015**	SeqNo: **1946250**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.426	0.50	10.00	0	84.3	75	125	8.689	3.08	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_SFPP

Sample ID: **MB-49832** SampType: **MBLK** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **3/4/2015** RunNo: **99293**
Client ID: **PBW** Batch ID: **49832** TestNo: **EPA 200.8** Analysis Date: **3/4/2015** SeqNo: **1946213**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.050	0.50									J
Lead	ND	0.50									
Thallium	0.016	0.50									J
Zinc	ND	10									

Sample ID: **LCS-49832** SampType: **LCS** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **3/4/2015** RunNo: **99293**
Client ID: **LCSW** Batch ID: **49832** TestNo: **EPA 200.8** Analysis Date: **3/4/2015** SeqNo: **1946214**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.176	0.50	10.00	0	91.8	85	115				
Lead	9.638	0.50	10.00	0	96.4	85	115				
Thallium	9.145	0.50	10.00	0	91.5	85	115				
Zinc	89.987	10	100.0	0	90.0	85	115				

Sample ID: **N014853-001G-MS** SampType: **MS** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **3/4/2015** RunNo: **99293**
Client ID: **ZZZZZZ** Batch ID: **49832** TestNo: **EPA 200.8** Analysis Date: **3/4/2015** SeqNo: **1946218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.802	0.50	10.00	0	78.0	75	125				
Lead	10.446	0.50	10.00	0	104	75	125				
Thallium	10.619	0.50	10.00	0.06660	106	75	125				
Zinc	82.561	10	100.0	1.086	81.5	75	125				

Sample ID: **N014853-001G-MSD** SampType: **MSD** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **3/4/2015** RunNo: **99293**
Client ID: **ZZZZZZ** Batch ID: **49832** TestNo: **EPA 200.8** Analysis Date: **3/4/2015** SeqNo: **1946219**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.816	0.50	10.00	0	78.2	75	125	7.802	0.185	20	
Lead	10.386	0.50	10.00	0	104	75	125	10.45	0.580	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W_SFPP

Sample ID: **N014853-001G-MSD** SampType: **MSD** TestCode: **200.8_W_SFP** Units: **µg/L** Prep Date: **3/4/2015** RunNo: **99293**
Client ID: **ZZZZZZ** Batch ID: **49832** TestNo: **EPA 200.8** Analysis Date: **3/4/2015** SeqNo: **1946219**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	10.592	0.50	10.00	0.06660	105	75	125	10.62	0.257	20	
Zinc	82.149	10	100.0	1.086	81.1	75	125	82.56	0.499	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1_W_LL

Sample ID: **MB-49848**	SampType: **MBLK**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **3/5/2015**	RunNo: **99316**
Client ID: **PBW**	Batch ID: **49848**	TestNo: **EPA 245.1**		Analysis Date: **3/5/2015**	SeqNo: **1946881**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.050									

Sample ID: **LCS-49848**	SampType: **LCS**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **3/5/2015**	RunNo: **99316**
Client ID: **LCSW**	Batch ID: **49848**	TestNo: **EPA 245.1**		Analysis Date: **3/5/2015**	SeqNo: **1946882**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.596	0.050	2.500	0	104	85	115				

Sample ID: **N014853-001G-MS**	SampType: **MS**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **3/5/2015**	RunNo: **99316**
Client ID: **ZZZZZZ**	Batch ID: **49848**	TestNo: **EPA 245.1**		Analysis Date: **3/5/2015**	SeqNo: **1946884**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.524	0.050	2.500	0	101	75	125				

Sample ID: **N014853-001G-MSD**	SampType: **MSD**	TestCode: **245.1_W_LL**	Units: **µg/L**	Prep Date: **3/5/2015**	RunNo: **99316**
Client ID: **ZZZZZZ**	Batch ID: **49848**	TestNo: **EPA 245.1**		Analysis Date: **3/5/2015**	SeqNo: **1946885**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.527	0.050	2.500	0	101	75	125	2.524	0.122	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 7199_WPGE

Sample ID: **MB-R99304**	SampType: **MBLK**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **99304**
Client ID: **PBW**	Batch ID: **R99304**	TestNo: **EPA 7199**		Analysis Date: **3/4/2015**	SeqNo: **1946695**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									

Sample ID: **LCS-R99304**	SampType: **LCS**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **99304**
Client ID: **LCSW**	Batch ID: **R99304**	TestNo: **EPA 7199**		Analysis Date: **3/4/2015**	SeqNo: **1946696**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.859	0.20	5.000	0	97.2	90	110				

Sample ID: **N014853-001I-DUP**	SampType: **DUP**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **99304**
Client ID: **ZZZZZZ**	Batch ID: **R99304**	TestNo: **EPA 7199**		Analysis Date: **3/4/2015**	SeqNo: **1946698**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.134	0.20						1.117	1.51	20	

Sample ID: **N014860-001A-MS**	SampType: **MS**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **99304**
Client ID: **ZZZZZZ**	Batch ID: **R99304**	TestNo: **EPA 7199**		Analysis Date: **3/4/2015**	SeqNo: **1946706**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	990.720	40	200.0	783.7	104	85	115				

Sample ID: **N014860-001A-MSD**	SampType: **MSD**	TestCode: **7199_WPGE**	Units: **µg/L**	Prep Date:	RunNo: **99304**
Client ID: **ZZZZZZ**	Batch ID: **R99304**	TestNo: **EPA 7199**		Analysis Date: **3/4/2015**	SeqNo: **1946707**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	979.380	40	200.0	783.7	97.9	85	115	990.7	1.15	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_FP_SFPP

Sample ID: **MB-49866** SampType: **MBLK** TestCode: **8015_W_FP_** Units: **ug/L** Prep Date: **3/9/2015** RunNo: **99352**
Client ID: **PBW** Batch ID: **49866** TestNo: **EPA 8015B** **EPA 3510C** Analysis Date: **3/9/2015** SeqNo: **1948456**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	ND	25									
Surr: Octacosane	75.802		80.00		94.8	26	152				
Surr: p-Terphenyl	68.926		80.00		86.2	57	132				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_SFPPTOT

Sample ID: **MB-49866**	SampType: **MBLK**	TestCode: **8015_W_SFP**	Units: **ug/L**		Prep Date: **3/9/2015**			RunNo: **99352**			
Client ID: **PBW**	Batch ID: **49866**	TestNo: **EPA 8015B**	**EPA 3510C**		Analysis Date: **3/9/2015**			SeqNo: **1948459**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	0	50									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID: **E150304LCS** SampType: **LCS** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **99297**
Client ID: **LCSW** Batch ID: **E15VW015** TestNo: **EPA 8015B** Analysis Date: **3/4/2015** SeqNo: **1946313**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1006.000	50	1000	0	101	67	136				
Surr: Chlorobenzene - d5	50360.000		50000		101	74	138				

Sample ID: **E150304MB1** SampType: **MBLK** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **99297**
Client ID: **PBW** Batch ID: **E15VW015** TestNo: **EPA 8015B** Analysis Date: **3/4/2015** SeqNo: **1946314**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	53843.000		50000		108	74	138				

Sample ID: **N014853-001BMS** SampType: **MS** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **99297**
Client ID: **ZZZZZZ** Batch ID: **E15VW015** TestNo: **EPA 8015B** Analysis Date: **3/4/2015** SeqNo: **1946318**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1038.000	50	1000	0	104	67	136				
Surr: Chlorobenzene - d5	52504.000		50000		105	74	138				

Sample ID: **N014853-001BMSD** SampType: **MSD** TestCode: **8015GAS_WS** Units: **ug/L** Prep Date: RunNo: **99297**
Client ID: **ZZZZZZ** Batch ID: **E15VW015** TestNo: **EPA 8015B** Analysis Date: **3/4/2015** SeqNo: **1946319**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1046.000	50	1000	0	105	67	136	1038	0.768	30	
Surr: Chlorobenzene - d5	53064.000		50000		106	74	138		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150305LCS** SampType: **LCS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **99311**
Client ID: **LCSW** Batch ID: **P15VW034** TestNo: **EPA 8260B** Analysis Date: **3/5/2015** SeqNo: **1946802**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	17.840	0.50	20.00	0	89.2	69	133				
1,2-Dichloroethane	18.310	0.50	20.00	0	91.6	69	132				
Benzene	19.560	1.0	20.00	0	97.8	81	122				
Ethylbenzene	19.720	1.0	20.00	0	98.6	73	127				
m,p-Xylene	41.500	1.0	40.00	0	104	76	128				
MTBE	18.180	1.0	20.00	0	90.9	65	123				
o-Xylene	21.290	1.0	20.00	0	106	80	121				
Tert-Butanol	79.020	5.0	100.0	0	79.0	70	130				
Toluene	20.160	2.0	20.00	0	101	77	122				
Xylenes, Total	62.790	2.0	60.00	0	105	75	125				
Surr: 1,2-Dichloroethane-d4	22.030		25.00		88.1	72	119				
Surr: 4-Bromofluorobenzene	26.040		25.00		104	76	119				
Surr: Dibromofluoromethane	23.170		25.00		92.7	85	115				
Surr: Toluene-d8	24.930		25.00		99.7	81	120				

Sample ID: **N014853-001CMS** SampType: **MS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **99311**
Client ID: **ZZZZZZ** Batch ID: **P15VW034** TestNo: **EPA 8260B** Analysis Date: **3/5/2015** SeqNo: **1946803**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	17.740	0.50	20.00	0	88.7	69	133				
1,2-Dichloroethane	18.580	0.50	20.00	0	92.9	69	132				
Benzene	19.440	1.0	20.00	0	97.2	81	122				
Ethylbenzene	19.480	1.0	20.00	0	97.4	73	127				
m,p-Xylene	40.790	1.0	40.00	0	102	76	128				
MTBE	17.280	1.0	20.00	0	86.4	65	123				
o-Xylene	20.740	1.0	20.00	0	104	80	121				
Tert-Butanol	70.950	5.0	100.0	0	71.0	70	130				
Toluene	20.220	2.0	20.00	0	101	77	122				
Xylenes, Total	61.530	2.0	60.00	0	103	75	125				
Surr: 1,2-Dichloroethane-d4	21.740		25.00		87.0	72	119				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **N014853-001CMS** SampType: **MS** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **99311**
Client ID: **ZZZZZZ** Batch ID: **P15VW034** TestNo: **EPA 8260B** Analysis Date: **3/5/2015** SeqNo: **1946803**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25.630		25.00		103	76	119				
Surr: Dibromofluoromethane	23.020		25.00		92.1	85	115				
Surr: Toluene-d8	25.170		25.00		101	81	120				

Sample ID: **N014853-001CMSD** SampType: **MSD** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **99311**
Client ID: **ZZZZZZ** Batch ID: **P15VW034** TestNo: **EPA 8260B** Analysis Date: **3/5/2015** SeqNo: **1946804**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	17.710	0.50	20.00	0	88.6	69	133	17.74	0.169	20	
1,2-Dichloroethane	18.880	0.50	20.00	0	94.4	69	132	18.58	1.60	20	
Benzene	19.770	1.0	20.00	0	98.8	81	122	19.44	1.68	20	
Ethylbenzene	20.130	1.0	20.00	0	101	73	127	19.48	3.28	20	
m,p-Xylene	41.840	1.0	40.00	0	105	76	128	40.79	2.54	20	
MTBE	18.340	1.0	20.00	0	91.7	65	123	17.28	5.95	20	
o-Xylene	21.720	1.0	20.00	0	109	80	121	20.74	4.62	20	
Tert-Butanol	84.280	5.0	100.0	0	84.3	70	130	70.95	17.2	20	
Toluene	20.420	2.0	20.00	0	102	77	122	20.22	0.984	20	
Xylenes, Total	63.560	2.0	60.00	0	106	75	125	61.53	3.25	20	
Surr: 1,2-Dichloroethane-d4	21.970		25.00		87.9	72	119		0		
Surr: 4-Bromofluorobenzene	26.450		25.00		106	76	119		0		
Surr: Dibromofluoromethane	23.400		25.00		93.6	85	115		0		
Surr: Toluene-d8	25.570		25.00		102	81	120		0		

Sample ID: **P150305MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **99311**
Client ID: **PBW** Batch ID: **P15VW034** TestNo: **EPA 8260B** Analysis Date: **3/5/2015** SeqNo: **1946805**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.50									
1,2-Dichloroethane	ND	0.50									
Benzene	ND	1.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

CLIENT: CH2MHill
Work Order: N014853
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: **P150305MB3** SampType: **MBLK** TestCode: **8260_WP_SF** Units: **ug/L** Prep Date: RunNo: **99311**
Client ID: **PBW** Batch ID: **P15VW034** TestNo: **EPA 8260B** Analysis Date: **3/5/2015** SeqNo: **1946805**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
MTBE	ND	1.0									
o-Xylene	ND	1.0									
Tert-Butanol	ND	5.0									
Toluene	ND	2.0									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	22.650		25.00		90.6	72	119				
Surr: 4-Bromofluorobenzene	25.190		25.00		101	76	119				
Surr: Dibromofluoromethane	23.990		25.00		96.0	85	115				
Surr: Toluene-d8	25.160		25.00		101	81	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
S	Spike/Surrogate outside of limits due to matrix interference	DO	Surrogate Diluted Out		Calculations are based on raw values

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)

CHAIN OF CUSTODY RECORD

DATE: 3/3/15
PAGE: _____ OF 1

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

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

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ■ 48HR ☐ 72 HR ■ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
Report to D. Jablonski/CH2M HILL, cc: KMEP
Direct Bill KMEP/SFPP - Steve Defibaugh-ref. AFE# 81195
"J" flags required/Use lowest possible detection limit - all methods.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Oil & Grease (1664)	TPH-g, TPH-d, and TPH-oil (8015B)	Total TPH (as TPH-g, TPH-d, and TPH-oil) (8015B)	Settleable Solids (SM2540F)	Total Suspended Solids (SM2540D)	Phenol (420.1)	BTEX, Total Xylenes, 1,1-DCA, 1,2-DCA(8260B)	MTBE and TBA, (8260B) 48HR TAT	Cu, Pb, Tl, and Zn (200.8)	Se (200.8); Hg (245.1)	Cr VI (7199)		Comments
	EFF- 03-03	Effluent	3/3/15	1415	WW	17	X	X	X	X	X	X	X	X	X	X	X		24 hr TAT for metals and VOCs

3.6°C IR#2

NO14853-1

Relinquished by: (Signature)	3/3/15 16:00	Received by: (Signature)	Date: 3/3/15 Time: 16:00
Relinquished by: (Signature)	3/3/15 16:28	Received by: (Signature)	Date: 3/4/15 Time: 08:02
Relinquished by: (Signature)		Received by: (Signature)	Date: Time:

Revised: 08/23/2012

ASSET Laboratories

Please review the checklist below. Any NO 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 (702) 307-2659.

Cooler Received/Opened On:	3/4/2015	Workorder:	N014853
Rep sample Temp (Deg C):	3.6	IR Gun ID:	2
Temp Blank:	☑ Yes ☐ No		
Carrier name:	Golden State Overnight		
Last 4 digits of Tracking No.:	6433	Packing Material Used:	Bubble Wrap
Cooling process:	☑ Ice ☐ Ice Pack ☐ Dry Ice ☐ Other ☐ None		

Sample Receipt Checklist

1. Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2. Custody seals intact, signed, dated 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 ☑	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. Temperature of rep sample or Temp Blank within acceptable 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 ☐
15. Did the bottle labels indicate correct preservatives used?	Yes ☑	No ☐	NA ☐
16. Were there Non-Conformance issues at login?	Yes ☐	No ☐	NA ☑
Was Client notified?	Yes ☐	No ☐	NA ☑

Comments:

Checklist Completed By: HG 3/6/2015

Reviewed By: gog 03/11/15

ASSET Laboratories
3151-3153 W Post Rd., Las Vegas, NV 89118
www.atl-labs.com
TEL: 7023072659 *FAX: 7023072691*

CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

Subcontractor:

AETL
2834 North Naomi Street
Burbank, CA 91504

TEL: (818) 845-8200
FAX: (818) 845-8840
Acct #:

Field Sampler: James Dye

06-Mar-15

				Requested Tests		
Sample ID	**Matrix**	**Date Collected**	**Bottle Type**	**EPA 420.1**		
N014853-001F / EFF-03-03	Wastewater	3/3/2015 2:15:00 PM	32OZA	1		

General Comments: Please email sample receipt acknowledgement to the PM.

Please use PO#:N14853A For questions, call Marlon at (702)-307-2659. Please e-mail results to reports.lv@assetlaboratories.com by:Normal TAT

Please analyze for Phenolics.

		Date/Time			Date/Time
Relinquished by:		3/6/2015	**Received by:**		
Relinquished by:			**Received by:**		

ASSET Laboratories

WORK ORDER Summary

04-Mar-15

WorkOrder: N014853

Client ID: CH2HI03

Project: SFPP - Norwalk Site **QC Level:** RTNE **Date Received:** 3/4/2015

Comments: Report to D. Jablonski/CH2M HILL, cc:KMEP

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N014853-001A	EFF-03-03	3/3/2015 2:15:00 PM	3/11/2015	Wastewater		Oil and Grease Sample Prep	☐	☐	☐	WW
			3/11/2015		EPA 1664 _HEM	Hexane Extractable Material (HEM)	☐	☐	☐	WW
N014853-001B			3/11/2015		EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	☐	☐	☐	WW
N014853-001C			3/5/2015		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	☐	☐	☐	VW
N014853-001D			3/11/2015		SM2540F	SETTLEABLE MATTER	☐	☐	☐	WW
			3/11/2015			Setteable Matter	☐	☐	☐	WW
N014853-001E			3/11/2015		SM2540D	TOTAL NON-FILTERABLE RESIDUE	☐	☐	☐	WW
			3/11/2015			Total Suspended Solids Prep	☐	☐	☐	WW
N014853-001F			3/11/2015		EPA 420.1	PHENOLICS	☐	☐	☑	SUB
N014853-001G			3/5/2015			AQPREP TOTAL METALS: ICP, FLAA	☐	☐	☐	WW
			3/5/2015		EPA 200.8	TOTAL METALS BY COLLISION/REACTION CELL ICPMS	☐	☐	☐	WW
			3/5/2015		EPA 200.8	TOTAL METALS BY ICPMS	☐	☐	☐	WW
			3/5/2015		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE	☐	☐	☐	WW
			3/5/2015			MERCURY PREP	☐	☐	☐	WW
N014853-001H			3/11/2015		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	☐	☐	☐	WW
			3/11/2015		EPA 8015B	TPH EXTRACTABLE BY GC/FID	☐	☐	☐	WW
			3/11/2015		EPA 8015B	Total TPH	☐	☐	☐	WW
N014853-001I			3/11/2015		EPA 7199	Hexavalent Chromium by IC	☐	☐	☐	WW
N014853-002A	FOLDER		3/5/2015		Folder	Folder	☐	☐	☐	LAB

GSO
GOLDEN STATE OVERNIGHT

800-322-5555 www.gso.com

Ship From
ASSET LABORATORIES
MOLKY BRAR
11060 ARTESIA BLVD., STE. C
CERRITOS, CA 90703

Ship To
ATL INC
MARLON CARTIN
3151 W. POST RD.,
LAS VEGAS, NV 89118

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:
HOLD FOR PICK UP
Signature Type: REQUIRED

Tracking #: 527126433

CPS

LVS

LAS VEGAS

N89103A

34826635

Print Date: 3/3/2015 4:44 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.

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2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attention: Marlon Cartin

Number of Pages 2
Date Received 03/04/2015
Date Reported 03/10/2015

Job Number	Order Date	Client
76173	03/04/2015	ASSET

Project Name: SFPP-Norwalk Site

Enclosed please find results of analyses of 1 waste water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____ Approved By: C. Razmara

Cyrus Razmara, Ph.D.
Laboratory Director

AEL

Job # 76173

ASSET LABORATORIES
ANALYTICAL SUPPORT SERVICES FOR ENVIRONMENTAL TECHNOLOGIES

CHAIN OF CUSTODY RECORD

Page 1 of 1

Contact us:
Nevada: 3151 W. Post Road, Las Vegas, NV 89118
P: 702.307.2659 F: 702.3072691
California: 11060 Artesia Blvd., Ste C, Cerritos, CA 90703
P: 562.219.7435 F: 562.219.7436
www.assetlaboratories.com

Client: Asset Laboratories	Report to:	Bill to:	EDD Requirement: Excel EDD ☐ Geotracker ☐ Labspec ☐ Others ☐ Specify:
Address:	Company:	Address:	QA/QC: RTNE ☐ RWQCB ☐ CalTrans ☐ Level III ☐ LEVEL IV ☐ Regulatory ☐ Specify State:
Address:	Email:	Email to: PO#	Sample Receipt Condition: Y / N — 1. Chilled ☐☐ 2. Headspace ☐☐ 3. Container Intact ☐☐ 4. Seal Present ☐☐ 5. IR number 6. Method of Cooling Sample Temp:
Phone: Fax:	Address:	Phone: Fax: Global ID:	
Submitted By: Molly Brar			
Title:	Phone: Fax:		
Signature: Date:	Sampled By:		

I hereby authorize ASSET Labs to perform the tests indicated below:

I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Project Name: SEPP-Norwalk site

Project Number:

Signature: Date:

Matrix: Ground ☐ Sediment ☐ Potable ☐ Soil ☐ NPDES ☐ Other Solid ☐ Surface ☐

Analyses Requested: Phenol (420.1)

Item No.	Laboratory Work Order No.	Sample ID/Location	Date	Time	Water	Solid	Others	Phenol (420.1)	Turn Around Time	No. of container	Container Type	PRESERVATION	Remarks
1	76173.01	EFF-03-03 Effluent	3/3/15	1415	WW			X	TH	1	G		1L Amber
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Courier:

Tracking No.

Relinquished by (Signature and Printed Name):	Date / Time: 3/4/15 11:50 AM	Received by (Signature and Printed Name):	Date / Time: 3/4/15 11:50
Relinquished by (Signature and Printed Name):	Date / Time:	Received by (Signature and Printed Name):	Date / Time:
Relinquished by (Signature and Printed Name):	Date / Time: 3/4/15 1348	Received by (Signature and Printed Name): Liam Laude	Date / Time: 03/04/15 1345

Turn Around Time (TAT)
- ☐ A = < 24 Hrs or Same Day TAT
- ☐ B = Next Workday
- ☐ C = 2 Workdays
- ☐ D = 3 Workdays
- ☒ E = Routine 5-7 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00 PM.

Special Instruction:

Notes:
1. Samples will be disposed in 45 days upon receipt and records will be destroyed in 5 years upon submission of final report.
2. Regular TAT is 5-7 business days, surcharges will apply for rush analysis
   Less than 24 Hrs = 200% Next Day = 100% 2 Workdays = 50% 3 Workdays = 35% 4 Workdays = 20%
3. Custom EDD Formats will be an additional 5% of the total project price.
4. 10% surcharge for Level III Data Packages, 15% for Level IV Data Packages. Surcharge applied on total project price.
5. Trip Blanks and Equipment Blanks are billable sample.
6. ASSET Laboratories is not responsible for samples collected using incorrect methodology.
7. Terms are net 30 Days.
8. All reports are submitted in electronic format. Please inform ASSET Laboratories if hard copy of report is needed.
9. For subcontract analysis, TAT and Surcharges will vary.

Preservatives:

H = HCl	N = HNO_3	S = H_2SO_4	C = 4°C
Z = Zn(AC)2	O = NaOH	T = $Na_2S_2O_3$	
Others/Specify:			

Container Type:

T = Tube	V = VOA	P = Pint
J = Jar	B = Tedlar	G = Glass
M = Metal	P = Plastic	C = Can

White = Laboratory Copy

Yellow = Customer's Copy

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

ASSET Laboratories **3151-3153 W Post Road** **Las Vegas, NV 89118-**	**Project ID: None** **Date Received 03/04/2015** **Date Reported 03/10/2015**
Telephone: (702)307-2659 **Attention: Marlon Cartin**	

Job Number	Order Date	Client
76173	03/04/2015	ASSET

CERTIFICATE OF ANALYSIS
CASE NARRATIVE

AETL received 1 samples with the following specification on 03/04/2015.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
76173.01	EFF-03-03 Effluent	03/03/2015	Aqueous	1

Method ^ Submethod	*Req Date*	*Priority*	*TAT*	*Units*
420.1	03/11/2015	2	Normal	mg/L

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____ Approved By: C. Razmara _____

Cyrus Razmara, Ph.D.
Laboratory Director

American Environmental Testing Laboratory Inc.
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ANALYTICAL RESULTS

Ordered By

ASSET Laboratories
3151-3153 W Post Road
Las Vegas, NV 89118-

Telephone: (702)307-2659
Attn: Marlon Cartin
Page: **2**

Project Name: SFPP-Norwalk Site

AETL Job Number	Submitted	Client
76173	03/04/2015	ASSET

Method: 420.1, Phenolics, Total Recoverable, Spectrophotometric, Manual

QC Batch No: 030415-1

Our Lab I.D.			Method Blank	**76173.01**			
Client Sample I.D.				EFF-03-03 Effluent			
Date Sampled				**03/03/2015**			
Date Prepared			**03/04/2015**	**03/04/2015**			
Preparation Method			**420.1**	**420.1**			
Date Analyzed			**03/04/2015**	**03/04/2015**			
Matrix			Aqueous	Aqueous			
Units			mg/L	mg/L			
Dilution Factor			1	1			
Analytes	**MDL**	**PQL**	**Results**	**Results**			
Phenolic compounds as phenol	**0.15**	**0.30**	**ND**	**ND**			

QUALITY CONTROL REPORT

QC Batch No: 030415-1; Dup or Spiked Sample: 76143.01; LCS: Clean Water; QC Prepared: 03/04/2015; QC Analyzed: 03/04/2015; Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Phenol	**0.00**	**0.500**	**0.432**	**86.4**	**0.500**	**0.445**	**89.0**	**3.0**	**80-120**	**<15**

QC Batch No: 030415-1; Dup or Spiked Sample: 76143.01; LCS: Clean Water; QC Prepared: 03/04/2015; QC Analyzed: 03/04/2015; Units: mg/L

Analytes	LCS Concen	LCS Recov	LCS % REC	LCS DUP Concen	LCS DUP Recov	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit	
Phenol	**0.500**	**0.444**	**88.8**	**0.500**	**0.432**	**86.4**	**2.7**	**80-120**	**<20**	

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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

American Environmental Testing Laboratory Inc.
2834 & 2908 North Naomi Street, Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference