

REPORT

Fourth Quarter 2015
Remediation Progress Report and
Annual 2015 Summary
SFPP Norwalk Pump Station
Norwalk, California

Prepared for

Kinder Morgan Energy Partners, L.P.

January 15, 2016



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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.



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Contents

Section	Page
Signature Page	iii
Acronyms and Abbreviations	vii
1 Introduction	1-1
2 Remediation Systems	2-1
3 Operations and Maintenance	3-1
4 Summary of Remediation Progress	4-1
5 System Evaluation and Optimization	5-1
6 Planned First Quarter 2016 Activities	6-1
7 References	7-1

Appendixes

- A Summary of System Shutdowns in 2015
- B Laboratory Analytical Reports

Tables

- 1 Remediation Well Construction and Status
- 2 Vapor Remediation System Operation Summary
- 3 Remediation Well Vapor Concentrations
- 4 Extracted Vapor Analytical Results
- 5 Groundwater Remediation System Operation Summary
- 6 Extracted Groundwater Analytical Results
- 7 Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

Figures

- 1 Site Location Map
- 2 Remediation System Layout
- 3 Hydrographs for Select Groundwater Monitoring Wells

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
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CH2M	CH2M HILL Engineers, Inc.
EPA	U.S. Environmental Protection Agency
GWE	groundwater extraction
GWTS	groundwater treatment system
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
RWQCB	California Regional Water Quality Control Board, Los Angeles Region
SCAQMD	South Coast Air Quality Management District
SFPP	SFPP, L.P., an operating partnership of Kinder Morgan Energy Partners, L.P.
SVE	soil vapor extraction
TBA	tertiary butyl alcohol
TFE	total fluids extraction
TGNMOC	total gaseous non-methane organic carbon
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons quantified as diesel
TPH-fp	total petroleum hydrocarbons quantified as fuel product
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

Introduction

CH2M HILL Engineers, Inc. (CH2M) has prepared this report on behalf of SFPP, L.P. (SFPP), an operating partnership of Kinder Morgan Energy Partners, L.P., to summarize remediation activities performed at the former SFPP Norwalk Pump Station located within the Defense Fuel Support Point Norwalk, at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1) during the fourth quarter 2015 reporting period. This report also summarizes remediation activities described in previously submitted first, second, and third quarter 2015 progress reports, thereby providing a combined fourth quarter 2015 remediation progress report and annual 2015 summary report.

This 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, 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 October through December 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 October through December 2015 and the progress achieved through those activities are summarized in the following sections.

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 processes 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 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 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 fourth quarter 2015. The remediation system layout is presented in Figure 2.

Operations and Maintenance

During the fourth 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 system and GWTS (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 the LGAC vessels.
- Performed carbon changeout of the vapor-phase granular activated carbon (VGAC) vessels used to treat off-gas from the product tank and OWS.

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

- The GWTS was off on arrival on October 10, 2015, due to an equalization tank alarm. A burned out relay was replaced prior to system restart later that day.
- The SVE and GWTS were shut down on October 12, 2015, to facilitate fourth quarter groundwater monitoring activities. The SVE system was restarted on October 22, 2015; the GWTS was restarted on October 26, 2015. During the GWTS downtime, a broken underdrain to an LGAC vessel was repaired. A cleanout of the equalization tank was also performed prior to restarting the system.
- The SVE system was shut down on November 3, 2015, for routine system maintenance. The system was restarted on the same day.
- The GWTS was turned off on November 11 and December 17, 2015, to clean out the OWS, sump, equalization tank, and transfer tank. In both cases, the system was restarted on the same day.
- The GWTS was turned off on November 14, 2015, and restarted on November 19, 2015, after maintenance on the acid delivery system was completed.
- The SVE system was shut down on December 1, 8, 15, and 21, 2015, to drain water from the main manifold. In each case, the system was restarted on the same day.
- The GWTS was off on arrival on December 18, 2015, due to a high transfer tank alarm. The level switch was cleaned out and the system was restarted later that day.
- The SVE system was shut down on December 21, 2015, to facilitate soil excavation activities conducted by Source Group, Inc., near the SVE natural gas line (west of the containment pad). The SVE system was restarted on December 29, 2015, after portions of the gas line were cut and replaced.

A summary of system shutdowns for 2015 is included in Appendix A.

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.

Overall, during the fourth quarter 2015, the SVE system operated approximately 77 percent of the time, while the GWTS operated approximately 73 percent of the time. Without planned shutdowns of the SVE and GWTS, the SVE system operated approximately 97 percent of the time and the GWTS operated approximately 94 percent of the time during the fourth quarter 2015.

Table 2 presents the SVE system operations summary. Extracted vapor photoionization detector (PID) measurements at the end of the fourth quarter 2015 are summarized in Table 3. Extracted vapor analytical results for the fourth quarter 2015 are summarized in Table 4. The groundwater remediation system operation activities for the fourth quarter 2015 are summarized in Table 5. The extracted groundwater analytical results for the fourth 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 fourth quarter 2015 when the systems were in operation. During the fourth quarter 2015, influent vapor samples were collected on October 6, November 10, and December 10, 2015. Influent water samples were collected on October 8, November 24, and December 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 gaseous non-methane organic compounds (TGNMOC) using SCAQMD Method 25.1
- VOCs using U.S. Environmental Protection Agency (EPA) Method TO-15
- Total VOCs (TVOCs) using EPA Method TO-3

ATL analyzed the water samples for the following:

- Total petroleum hydrocarbons (TPH) quantified as gasoline (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 laboratory analytical reports and chain-of-custody documents for these samples are included in Appendix B.

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 96,351 pounds during the fourth quarter 2015, for a cumulative mass removal of 3,370,752 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 1,482,816 gallons of groundwater was extracted during the fourth quarter 2015 (Table 5). No water was extracted from the WSB area during the fourth quarter 2015. Approximately 96.2 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. MTBE, TBA, and 1,2-DCA 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 772 gallons during the fourth quarter 2015. In addition, 34.5 gallons of product were manually bailed from a select group of wells that do not have TFE pumps (GMW-23, GMW-29, GMW-30, GMW-O-12, MW-SF-4, MW-SF-9, and MW-SF-15) during the fourth quarter 2015. Since 1995, a total of 13,892 gallons of product has been removed by TFE, vacuum truck, or manual bailing operations. Since March 2015 (first quarter 2015), some online TFE wells were gauged and pump inlets were reset to maximize product removal.

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 concentrations and total volume of extracted groundwater. Since GWE first began in 1996, hydrocarbon mass removed by the GWTS is estimated to be 13,580 pounds. During the fourth quarter 2015, the mass removal of hydrocarbons was estimated to be 1,612 pounds. Since the first quarter 2014 there has been significantly more hydrocarbon removal than in previous quarters. The increase in mass removal during the fourth quarter 2015, and since the first quarter 2014, is attributed to the higher TPH-total concentrations in the groundwater influent. The maximum TPH-total concentration in the fourth quarter 2015 was 164,000 micrograms per liter ($\mu\text{g/L}$) (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 because of continued declining water levels across the site due to drought conditions.

System Evaluation and Optimization

For the SVE treatment system, during the fourth 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 November 10, 2015, as shown in Table 3. The operational status of the SVE wells at the end of the fourth quarter 2015 is shown in Table 1. PID readings recorded on November 10, 2015, indicate 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 2015 groundwater monitoring event in the WSB region occurred during the fourth quarter 2015. Results will be presented in the Second Semiannual 2015 Groundwater Monitoring Report due to the RWQCB in February 2016. Monitoring results support the continued shutdown of GWE in the WSB region. MTBE, TBA, and 1,2-DCA concentrations in the western area will continue to be monitored and the WSB system will be restarted if necessary.

As shown in Table 7, measurable free product was observed in 21 remediation wells during the fourth quarter 2015. The product thicknesses for these wells ranged from 0.02 foot in GMW-25 to 11.27 feet in GMW-O-12. It is believed that increased product thicknesses observed are indicative of 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 measurable 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 8 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 14 wells operated for product recovery and hydraulic control in the south-central part of the site, and 4 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.

Planned First Quarter 2016 Activities

During the first quarter 2016, SFPP plans to continue to focus remedial efforts on the south-central and southeastern areas. The following maintenance activities are planned to be completed during the first quarter 2016:

- Continue weekly maintenance and monitoring of the south-central and southeastern SVE and TFE/GWE treatment systems.
- Measure individual well vapor concentrations.
- Collect and analyze system influent vapor and groundwater samples.
- Perform as-needed carbon changeouts of the LGAC vessels.
- Remove, inspect, and repair existing TFE/GWE pumps and associated discharge lines.
- Install pumps and associated equipment necessary for TFE at select wells with measurable free product.
- Continue to remove free product from wells without TFE pumps using manual bailing methods.
- Install the new OWS to allow more efficient removal of free product from the influent stream.
- Conduct biosparge pilot testing, as outlined in the *Horizontal Biosparge System Construction and Pilot Test Work Plan* submitted to the RWQCB on November 18, 2013 (CH2M, 2013b).

The TFE, GWE, 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 improve 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 first quarter 2016 will be described in the First Quarter 2016 Remediation Progress Report, to be submitted by April 15, 2016.

Field activities are currently underway to implement pilot testing of the horizontal biosparge system in the south-central area as described in the pilot test work plan (CH2M, 2013b) and the response to RWQCB comments on the work plan (CH2M, 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 installation of the aboveground portion of the system (air compressor, piping, and electrical) is now complete. 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).

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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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 Fourth 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	ON
	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	OFF	--
	MW-SF-10	9/23/2003	76.53	10 - 30	SVE	OFF	--
	MW-SF-11	6/19/2007	78.56	20 - 40	SVE; TFE	ON	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	OFF	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	OFF	ON
	GMW-10	7/8/1991	N/A	25 - 50	SVE; TFE	ON	ON
	GMW-22	8/2/1991	77.24	25 - 60	SVE; TFE	OFF	ON
	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	ON
	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	OFF
	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	--	OFF
	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	ON	--	
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	--	--
	GMW-SF-10	4/2/2003	75.77	37 - 46	TFE	--	--
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

Notes:

-- = information not available

feet bgs = feet below ground surface

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

GWE = groundwater extraction

NA = not applicable

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 (in. H ₂ O)	Mass Removed (pounds) ^a
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	1,644
3/30/15	94,123	4	--	1,800	38	169
3/31/15	94,144	22	2,464	1,861	40	1,105
First Quarter 2015 Totals	94,144	--	--	--	--	2,918
4/7/15	94,315	170	1,776	1,817	40	5,748
4/10/15	94,384	70	--	--	40	2,937
4/13/15	94,457	73	1,819	1,768	40	2,449
4/17/15	94,457	0	--	--	--	0
4/22/15	94,457	0	--	--	--	0
4/24/15	94,504	47	2,275	2,112	30	1,970
4/28/15	94,600	97	168	1,762	30	331
5/1/15	94,671	71	--	1,664	25	242
5/5/15	94,744	74	427	1,916	30	641
5/7/15	94,791	47	--	1,725	30	407
5/12/15	94,910	119	528	1,652	30	1,283
5/15/15	94,984	74	--	1,649	40	796
5/19/15	95,077	93	620	1,623	40	1,106
5/22/15	95,147	70	--	1,630	40	830
5/26/15	95,147	0	--	--	--	0
5/29/15	95,147	0	--	--	--	0
6/2/15	95,147	0	--	--	--	0
6/5/15	95,147	0	--	--	--	0
6/9/15	95,147	0	--	--	--	0
6/12/15	95,147	0	--	--	--	0
6/15/15	95,147	0	--	--	--	0
6/16/15	95,147	0	--	--	--	0
6/23/15	95,153	5	1,188	1,338	35	118
6/30/15	95,286	133	2,066	1,832	30	3,517
Second Quarter 2015 Totals	95,286	--	--	--	--	22,377

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 (in. H ₂ O)	Mass Removed (pounds) ^a
7/7/15	95,451	165	1,544	1,919	30	2,385
7/14/15	95,619	168	2,334	1,875	35	3,689
7/16/15	95,648	29	--	--	--	644
7/21/15	95,766	118	10,000	1,673	40	12,630
7/24/15	95,839	72	--	1,624	45	7,710
7/28/15	95,936	97	1,524	1,608	45	1,518
7/29/15	95,952	16	--	1,671	45	255
8/4/15	96,089	137	1,498	1,765	45	2,037
8/6/15	96,143	53	--	1,724	35	832
8/11/15	96,263	121	1,516	1,691	40	1,932
8/13/15	96,312	49	--	1,698	38	779
8/17/15	96,315	3	1,444	--	--	50
8/18/15	96,315	0	--	--	--	0
8/25/15	96,315	0	--	--	--	0
9/1/15	96,315	0	--	--	--	0
9/4/15	96,320	5	2,318	1,821	35	97
9/9/15	96,440	120	2,940	1,195	75	4,784
9/15/15	96,581	141	3,254	1,325	75	6,702
9/17/15	96,630	49	--	1,310	75	2,334
9/22/15	96,630	0	--	--	--	0
9/25/15	96,630	0	2,818	--	60	0
9/29/15	96,720	90	2,116	1,406	65	2,974
Third Quarter 2015 Totals	96,720	--	--	--	--	51,350
10/1/15	96,768	48	--	1,436	70	1,581
10/6/15	96,889	121	2,310	1,482	70	4,360
10/8/15	96,937	48	--	1,411	70	1,726
10/12/15	97,035	98	2,485	1,405	0	3,807
10/20/15	97,035	0	0	0	0	0
10/22/15	97,035	0	2,146	1,529	65	13
10/27/15	97,150	114	1,994	1,532	60	3,806
10/29/15	97,198	48	--	1,429	60	0
11/3/15	97,318	121	2,040	1,511	65	4,181
11/6/15	97,390	72	--	--	65	2,482
11/10/15	97,483	93	764	1,417	70	1,245
11/12/15	97,531	48	--	1,466	70	1,892
11/17/15	97,652	121	974	1,453	70	4,355
11/19/15	97,704	52	--	--	70	3,715
11/24/15	97,819	115	896	1,448	74	4,591
12/1/15	97,984	166	1,708	1,520	60	10,740
12/3/15	98,035	50	1,723	1,332	70	10,772
12/8/15	98,147	112	1,516	1,387	75	8,853
12/15/15	98,312	166	1,619	1,421	70	9,311
12/17/15	98,314	2	1,590	1,496	70	7,790
12/21/15	98,408	94	1,650	1,475	70	7,598
12/29/15	98,408	0	2,100	1,406	75	3,534
Fourth Quarter 2015 Totals	98,408	--	--	--	--	96,351
Cumulative Totals	98,408	--	--	--	--	3,370,752

Notes:

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

-- = not applicable or not available

FID = flame ionization detector

in. H₂O = inches of water

PID = photoionization detector

ppmv = parts per million by volume

scfm = standard cubic feet per minute

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

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	9/1/2015 (ppmv as Hexane) ^a	9/17/2015 (ppmv as Hexane) ^a	11/10/2015 (ppmv as Hexane) ^a
South-Central	MW-SF-1	SVE	1,176	1,302	1,176	738
	MW-SF-2	SVE; TFE	532	700	532	318
	MW-SF-3	SVE; TFE	1,818	2,524	1,818	2,346
	MW-SF-4	SVE	168	238	168	108
	MW-SF-5	SVE	298	172	298	158
	MW-SF-6	SVE; TFE	3,322	4,090	3,322	>5000
	MW-SF-9	SVE	116	658	116	70
	MW-SF-10	SVE	84	154	84	62
	MW-SF-11	SVE; TFE	176	520	176	146
	MW-SF-12	SVE; TFE	3,910	>5000	3,910	1,948
	MW-SF-13	SVE; TFE	726	1,330	726	448
	MW-SF-14	SVE; TFE	722	574	722	902
	MW-SF-15	SVE; TFE	638	2,838	638	96
	MW-SF-16	SVE; TFE	1,218	2,654	1,218	1,260
	GMW-9	SVE; TFE	142	2,750	142	287
	GMW-10	SVE	1,860	1,848	1,860	1,020
	GMW-22	SVE; TFE	142	2,750	142	287
	GMW-24	SVE; TFE	848	948	848	508
	GMW-25	SVE; GWE	818	948	818	508
	GWR-3	SVE; GWE	4,350	>5000	4,350	3,640
	VEW-1	SVE	382	130	382	210
	VEW-2	SVE	2510	158	2510	2048
	MW-O-1	SVE; TFE	386	168	386	516
	MW-O-2	SVE; TFE	914	1,414	914	860
	GMW-O-11	SVE; TFE	>5000	>5000	>5000	3,834
	GMW-O-12	SVE	>5000	368	>5000	>5000
	GMW-O-20	SVE; TFE	>5000	>5000	>5000	>5000
	GMW-O-23	SVE; TFE	>5000	172	>5000	>5000
	MW-18 (MID)	SVE	462	200	462	188
	HW-1	SVE	944	444	944	378
HW-2	SVE	2,356	154	2,356	974	
Southeastern	GMW-36	SVE; TFE	4,334	2,398	4,334	718
	GMW-O-15	SVE; TFE	4,334	2,398	4,334	718
	GMW-O-18	SVE; TFE	4,334	2,398	4,334	718

Notes:

^a Vapor readings measured in the field with an Eagle 2 photoionization detector (PID)

calibrated using 100 ppmv of hexane.

GWE = groundwater extraction

ppmv = parts per million by volume

SVE = soil vapor extraction

TFE = total fluids extraction

Table 4. Extracted Vapor Analytical Results^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs) ^b				
	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (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 ^c	<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^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs) ^b				
	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (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
4/7/2015	0.014	0.56	21	---	---	710	8,200	8,200	610	3,260	<160
5/5/2015	---	---	---	---	---	760	6,100	1,100	9,600	7,200	<140
6/30/2015	0.0065	0.37	21	---	---	270	3,100	380	3,800	2,820	<160
7/14/2015	0.0094	0.62	21	---	---	650	7,000	950	7,900	6,100	<200
8/4/2015	0.0053	0.49	21	---	---	560	6,200	710	7,700	4,800	<0.097
8/17/2015 ^c	---	---	---	---	---	470	4,800	500	5,400	3,600	<0.099
8/17/2015 ^c	---	---	---	---	---	470	5,000	520	5,800	3,870	<0.100
8/17/2015 ^c	---	---	---	---	---	480	5,100	580	6,100	4,000	<0.097
8/17/2015 ^c	---	---	---	---	---	480	5,200	580	6,300	4,100	<0.099
9/1/2015 ^c	---	---	---	---	---	670	7,000	850	8,700	6,900	<0.097
9/1/2015 ^c	---	---	---	---	---	930	12,000	1,500	14,000	11,400	<0.140
9/1/2015 ^c	---	---	---	---	---	890	12,000	2,300	20,000	14,300	<0.140
10/6/2015	0.0067	0.43	21	---	---	960	14,000	3,100	25,000	15,900	<200
11/10/2015	0.0028	0.30	21	---	860	---	9,100	1,800	15,000	9,400	<97
12/10/2016	0.0040	0.41	21	---	580	---	6,400	1,200	10,000	7,600	<120

Notes:

^a Influent vapor samples were collected from the manifold conveying soil vapors extracted from the south-central and southeastern areas.

^b Other detected VOCs are included in the laboratory analytical reports in Appendix B.

^c Influent vapor samples were collected after dilution before entrance into the SVE combustion chamber.

%v = percent by volume

<0.5 = not detected at or above the laboratory reporting limit shown

ASTM = ASTM International (formerly American Society for Testing and Materials)

EPA = U.S. Environmental Protection Agency

MTBE = methyl tertiary butyl ether

ppbv = parts per billion by volume

ppmv = parts per million by volume

SCAQMD = South Coast Air Quality Management District

TGNMOC = total gaseous non-methane organic carbon

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TVOC = total volatile organic compound

VOC = volatile organic compound

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) ^a	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 ^b	4,283,026	405,954	4,688,980	--	520	0
2009 Totals	2,309,627	0	2,309,627	--	105	0
2010 Totals ^c	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	

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) ^a	Product Recovery (gallons)
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	
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	

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) ^a	Product Recovery (gallons)
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

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SFPP Norwalk Pump Station, Norwalk, California

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4/1/2015	4,957	0	4,957	560,000	23.13	
4/2/2015	12,261	0	12,261	560,000	57.20	
4/3/2015	11,958	0	11,958	560,000	55.79	
4/4/2015	11,934	0	11,934	560,000	55.68	
4/5/2015	12,161	0	12,161	560,000	56.74	
4/6/2015	12,183	0	12,183	560,000	56.84	
4/7/2015	11,621	0	11,621	200,000	19.36	
4/8/2015	12,053	0	12,053	200,000	20.08	
4/9/2015	15,447	0	15,447	200,000	25.74	
4/10/2015	14,531	0	14,531	200,000	24.21	
4/11/2015	15,151	0	15,151	200,000	25.24	
4/12/2015	15,870	0	15,870	200,000	26.44	
4/13/2015	15,240	0	15,240	200,000	25.39	
4/14/2015	9,612	0	9,612	200,000	16.02	
4/15/2015	0	0	0	200,000	0.00	
4/16/2015	0	0	0	200,000	0.00	
4/17/2015	4	0	4	200,000	0.01	
4/18/2015	2	0	2	200,000	0.00	
4/19/2015	6	0	6	200,000	0.01	
4/20/2015	5	0	5	200,000	0.01	
4/21/2015	15	0	15	200,000	0.02	
4/22/2015	43	0	43	200,000	0.07	
4/23/2015	6,605	0	6,605	200,000	11.01	
4/24/2015	14,670	0	14,670	200,000	24.44	454
4/25/2015	13,734	0	13,734	200,000	22.88	
4/26/2015	12,820	0	12,820	200,000	21.36	
4/27/2015	12,774	0	12,774	200,000	21.28	
4/28/2015	12,721	0	12,721	200,000	21.20	
4/29/2015	12,721	0	12,721	200,000	21.20	
4/30/2015	12,721	0	12,721	200,000	21.20	
5/1/2015	15,855	0	15,855	200,000	26.42	
5/2/2015	12,762	0	12,762	200,000	21.26	
5/3/2015	12,629	0	12,629	200,000	21.04	
5/4/2015	12,693	0	12,693	200,000	21.15	
5/5/2015	12,475	0	12,475	200,000	20.79	
5/6/2015	12,934	0	12,934	200,000	21.55	
5/7/2015	15,213	0	15,213	200,000	25.35	

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5/8/2015	14,666	0	14,666	200,000	24.44	
5/9/2015	14,387	0	14,387	200,000	23.97	
5/10/2015	14,583	0	14,583	200,000	24.30	
5/11/2015	14,565	0	14,565	200,000	24.27	
5/12/2015	15,012	0	15,012	200,000	25.01	
5/13/2015	6,923	0	6,923	200,000	11.54	
5/14/2015	5,915	0	5,915	200,000	9.86	
5/15/2015	0	0	0	200,000	0.00	
5/16/2015	6,020	0	6,020	200,000	10.03	
5/17/2015	11,405	0	11,405	200,000	19.00	
5/18/2015	9,554	0	9,554	200,000	15.92	
5/19/2015	6,290	0	6,290	165,400	8.67	20
5/20/2015	9,715	0	9,715	165,400	13.39	
5/21/2015	11,156	0	11,156	165,400	15.37	18
5/22/2015	10,751	0	10,751	165,400	14.81	359
5/23/2015	9,773	0	9,773	165,400	13.47	
5/24/2015	8,601	0	8,601	165,400	11.85	
5/25/2015	8,503	0	8,503	165,400	11.72	
5/26/2015	8,335	0	8,335	165,400	11.49	
5/27/2015	8,017	0	8,017	165,400	11.05	
5/28/2015	7,814	0	7,814	165,400	10.77	
5/29/2015	7,864	0	7,864	165,400	10.84	16
5/30/2015	7,581	0	7,581	165,400	10.45	
5/31/2015	7,695	0	7,695	165,400	10.60	
6/1/2015	7,638	0	7,638	165,400	10.52	
6/2/2015	7,641	0	7,641	170,100	10.83	8
6/3/2015	7,967	0	7,967	170,100	11.29	
6/4/2015	7,854	0	7,854	170,100	11.13	14
6/5/2015	9,216	0	9,216	170,100	13.06	
6/6/2015	11,291	0	11,291	170,100	16.00	
6/7/2015	8,542	0	8,542	170,100	12.11	
6/8/2015	8,537	0	8,537	170,100	12.10	
6/9/2015	9,920	0	9,920	170,100	14.06	
6/10/2015	10,608	0	10,608	170,100	15.03	
6/11/2015	12,232	0	12,232	170,100	17.33	
6/12/2015	12,208	0	12,208	170,100	17.30	12
6/13/2015	11,952	0	11,952	170,100	16.94	

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6/14/2015	12,036	0	12,036	170,100	17.06	
6/15/2015	11,935	0	11,935	170,100	16.91	
6/16/2015	11,747	0	11,747	170,100	16.65	
6/17/2015	10,637	0	10,637	170,100	15.07	
6/18/2015	16,194	0	16,194	170,100	22.95	
6/19/2015	16,581	0	16,581	170,100	23.50	10
6/20/2015	16,496	0	16,496	170,100	23.38	
6/21/2015	16,352	0	16,352	170,100	23.17	
6/22/2015	16,156	0	16,156	170,100	22.90	
6/23/2015	16,129	0	16,129	170,100	22.86	
6/24/2015	18,827	0	18,827	170,100	26.68	
6/25/2015	21,621	0	21,621	170,100	30.64	
6/26/2015	23,039	0	23,039	170,100	32.65	11
6/27/2015	27,841	0	27,841	170,100	39.45	
6/28/2015	10,696	0	10,696	170,100	15.16	
6/29/2015	27,653	0	27,653	170,100	39.19	
6/30/2015	8,302	0	8,302	170,100	11.76	
Second Quarter 2015 Totals	1,001,354	0	1,001,354	--	1,731	920
7/1/2015	21,875	0	21,875	170,100	31.00	
7/2/2015	25,155	0	25,155	170,100	35.65	9
7/3/2015	22,810	0	22,810	170,100	32.32	
7/4/2015	17,139	0	17,139	170,100	24.29	
7/5/2015	15,601	0	15,601	170,100	22.11	
7/6/2015	22,666	0	22,666	170,100	32.12	
7/7/2015	10,014	0	10,014	170,100	14.19	161
7/8/2015	19,020	0	19,020	170,100	26.95	
7/9/2015	20,882	0	20,882	170,100	29.59	
7/10/2015	12,839	0	12,839	170,100	18.19	
7/11/2015	19,069	0	19,069	170,100	27.02	
7/12/2015	18,746	0	18,746	170,100	26.57	
7/13/2015	18,640	0	18,640	170,100	26.42	
7/14/2015	18,720	0	18,720	170,100	26.53	
7/15/2015	17,568	0	17,568	170,100	24.90	
7/16/2015	17,406	0	17,406	170,100	24.67	
7/17/2015	10,334	0	10,334	170,100	14.64	6
7/18/2015	15,169	0	15,169	170,100	21.50	
7/19/2015	18,090	0	18,090	170,100	25.64	

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7/20/2015	17,842	0	17,842	170,100	25.28	
7/21/2015	14,655	0	14,655	170,100	20.77	
7/22/2015	14,165	0	14,165	170,100	20.07	
7/23/2015	15,312	0	15,312	170,100	21.70	
7/24/2015	14,925	0	14,925	170,100	21.15	26
7/25/2015	15,163	0	15,163	170,100	21.49	
7/26/2015	15,041	0	15,041	170,100	21.31	
7/27/2015	15,104	0	15,104	170,100	21.40	
7/28/2015	14,692	0	14,692	170,100	20.82	
7/29/2015	14,933	0	14,933	170,100	21.16	5
7/30/2015	13,706	0	13,706	47,570	5.43	
7/31/2015	16,218	0	16,218	47,570	6.43	
8/1/2015	16,271	0	16,271	47,570	6.45	
8/2/2015	16,163	0	16,163	47,570	6.41	
8/3/2015	16,124	0	16,124	47,570	6.39	
8/4/2015	15,128	0	15,128	47,570	6.00	
8/5/2015	17,618	0	17,618	47,570	6.98	
8/6/2015	17,366	0	17,366	37,570	5.44	
8/7/2015	18,983	0	18,983	37,570	5.94	
8/8/2015	20,418	0	20,418	37,570	6.39	
8/9/2015	20,345	0	20,345	37,570	6.37	
8/10/2015	20,161	0	20,161	37,570	6.31	
8/11/2015	20,227	0	20,227	37,570	6.33	15
8/12/2015	18,460	0	18,460	37,570	5.78	
8/13/2015	19,785	0	19,785	37,570	6.19	
8/14/2015	17,634	0	17,634	37,570	5.52	
8/15/2015	9,496	0	9,496	37,570	2.97	
8/16/2015	9,594	0	9,594	37,570	3.00	
8/17/2015	9,525	0	9,525	37,570	2.98	
8/18/2015	10,270	0	10,270	37,570	3.21	246
8/19/2015	8,956	0	8,956	37,570	2.80	
8/20/2015	9,094	0	9,094	37,570	2.85	
8/21/2015	9,062	0	9,062	37,570	2.84	
8/22/2015	8,985	0	8,985	37,570	2.81	
8/23/2015	9,577	0	9,577	37,570	3.00	
8/24/2015	9,740	0	9,740	37,570	3.05	
8/25/2015	9,534	0	9,534	37,570	2.98	

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8/26/2015	8,079	0	8,079	37,570	2.53	
8/27/2015	9,572	0	9,572	37,570	3.00	
8/28/2015	6,291	0	6,291	37,570	1.97	9
8/29/2015	6,437	0	6,437	37,570	2.01	
8/30/2015	6,065	0	6,065	37,570	1.90	
8/31/2015	6,156	0	6,156	37,570	1.93	
9/1/2015	6,459	0	6,459	37,570	2.02	12
9/2/2015	10,758	0	10,758	37,570	3.37	
9/3/2015	8,930	0	8,930	37,570	2.80	
9/4/2015	11,272	0	11,272	37,570	3.53	
9/5/2015	18,061	0	18,061	37,570	5.65	
9/6/2015	18,675	0	18,675	37,570	5.85	
9/7/2015	14,904	0	14,904	129,000	16.02	
9/8/2015	14,179	0	14,179	129,000	15.24	
9/9/2015	14,216	0	14,216	129,000	15.28	
9/10/2015	22,237	0	22,237	129,000	23.90	
9/11/2015	21,576	0	21,576	129,000	23.19	
9/12/2015	26,622	0	26,622	129,000	28.61	
9/13/2015	26,221	0	26,221	129,000	28.18	
9/14/2015	26,062	0	26,062	129,000	28.01	
9/15/2015	26,076	0	26,076	129,000	28.02	
9/16/2015	21,647	0	21,647	129,000	23.26	
9/17/2015	20,867	0	20,867	129,000	22.43	
9/18/2015	13,102	0	13,102	129,000	14.08	
9/19/2015	5,169	0	5,169	129,000	5.56	
9/20/2015	5,309	0	5,309	129,000	5.71	
9/21/2015	5,301	0	5,301	129,000	5.70	
9/22/2015	5,271	0	5,271	129,000	5.66	291
9/23/2015	8,666	0	8,666	129,000	9.31	
9/24/2015	11,365	0	11,365	129,000	12.21	
9/25/2015	9,701	0	9,701	129,000	10.43	1
9/26/2015	15,166	0	15,166	129,000	16.30	
9/27/2015	20,318	0	20,318	129,000	21.84	
9/28/2015	21,698	0	21,698	129,000	23.32	
9/29/2015	21,631	0	21,631	129,000	23.25	
9/30/2015	21,889	0	21,889	129,000	23.52	
Third Quarter 2015 Totals	1,397,963	0	1,397,963	--	1,296	780

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10/1/2015	19,317	0	19,317	129,000	20.76	
10/2/2015	8,741	0	8,741	129,000	9.39	
10/3/2015	12,497	0	12,497	129,000	13.43	
10/4/2015	19,415	0	19,415	129,000	20.87	
10/5/2015	18,045	0	18,045	129,000	19.39	
10/6/2015	14,674	0	14,674	129,000	15.77	
10/7/2015	17,689	0	17,689	129,000	19.01	
10/8/2015	19,747	0	19,747	107,800	17.73	
10/9/2015	19,632	0	19,632	107,800	17.63	
10/10/2015	19,527	0	19,527	107,800	17.54	
10/11/2015	14,039	0	14,039	107,800	12.61	
10/12/2015	17,571	0	17,571	107,800	15.78	
10/13/2015	9,263	0	9,263	107,800	8.32	
10/14/2015	13	0	13	107,800	0.01	
10/15/2015	7	0	7	107,800	0.01	
10/16/2015	10	0	10	107,800	0.01	10.1
10/17/2015	0	0	0	107,800	0.00	
10/18/2015	8	0	8	107,800	0.01	
10/19/2015	6	0	6	107,800	0.01	
10/20/2015	10	0	10	107,800	0.01	
10/21/2015	6	0	6	107,800	0.01	
10/22/2015	12	0	12	107,800	0.01	
10/23/2015	110	0	110	107,800	0.10	
10/24/2015	0	0	0	107,800	0.00	
10/25/2015	0	0	0	107,800	0.00	
10/26/2015	0	0	0	107,800	0.00	
10/27/2015	9,379	0	9,379	107,800	8.42	
10/28/2015	20,500	0	20,500	107,800	18.41	
10/29/2015	26,827	0	26,827	107,800	24.09	
10/30/2015	26,186	0	26,186	107,800	23.52	15.6
10/31/2015	26,165	0	26,165	107,800	23.50	
11/1/2015	25,943	0	25,943	107,800	23.30	
11/2/2015	25,981	0	25,981	107,800	23.33	
11/3/2015	25,990	0	25,990	107,800	23.34	506
11/4/2015	22,519	0	22,519	107,800	20.22	
11/5/2015	23,864	0	23,864	107,800	21.43	
11/6/2015	24,472	0	24,472	107,800	21.98	

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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) ^a	Product Recovery (gallons)
11/7/2015	25,887	0	25,887	107,800	23.25	
11/8/2015	30,617	0	30,617	107,800	27.50	
11/9/2015	29,145	0	29,145	107,800	26.17	
11/10/2015	29,278	0	29,278	107,800	26.29	
11/11/2015	21,431	0	21,431	107,800	19.25	
11/12/2015	28,273	0	28,273	107,800	25.39	
11/13/2015	19,755	0	19,755	107,800	17.74	
11/14/2015	23	0	23	107,800	0.02	
11/15/2015	17	0	17	107,800	0.02	
11/16/2015	0	0	0	107,800	0.00	
11/17/2015	0	0	0	107,800	0.00	8.8
11/18/2015	1	0	1	107,800	0.00	
11/19/2015	0	0	0	107,800	0.00	
11/20/2015	9,061	0	9,061	107,800	8.14	
11/21/2015	30,565	0	30,565	107,800	27.45	
11/22/2015	29,143	0	29,143	107,800	26.17	
11/23/2015	29,522	0	29,522	107,800	26.51	
11/24/2015	25,805	0	25,805	121,800	26.19	
11/25/2015	28,780	0	28,780	121,800	29.20	
11/26/2015	28,305	0	28,305	121,800	28.72	
11/27/2015	29,298	0	29,298	121,800	29.73	
11/28/2015	30,013	0	30,013	121,800	30.46	
11/29/2015	23,267	0	23,267	121,800	23.61	
11/30/2015	11,712	0	11,712	121,800	11.88	
12/1/2015	27,553	0	27,553	121,800	27.96	
12/2/2015	27,273	0	27,273	121,800	27.67	
12/3/2015	27,316	0	27,316	164,000	37.32	
12/4/2015	25,849	0	25,849	164,000	35.32	
12/5/2015	27,606	0	27,606	164,000	37.72	
12/6/2015	22,320	0	22,320	164,000	30.50	
12/7/2015	8,974	0	8,974	164,000	12.26	
12/8/2015	23,206	0	23,206	164,000	31.71	
12/9/2015	27,006	0	27,006	164,000	36.90	
12/10/2015	30,345	0	30,345	164,000	41.46	
12/11/2015	29,070	0	29,070	164,000	39.72	
12/12/2015	25,864	0	25,864	164,000	35.34	
12/13/2015	20,307	0	20,307	164,000	27.75	

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) ^a	Product Recovery (gallons)
12/14/2015	27,066	0	27,066	164,000	36.98	
12/15/2015	11,194	0	11,194	164,000	15.29	266
12/16/2015	12,699	0	12,699	164,000	17.35	
12/17/2015	9,983	0	9,983	164,000	13.64	
12/18/2015	4,266	0	4,266	164,000	5.83	
12/19/2015	13,942	0	13,942	164,000	19.05	
12/20/2015	26,675	0	26,675	164,000	36.45	
12/21/2015	23,320	0	23,320	164,000	31.86	
12/22/2015	18,191	0	18,191	164,000	24.85	
12/23/2015	8,269	0	8,269	164,000	11.30	
12/24/2015	8,278	0	8,278	164,000	11.31	
12/25/2015	11,511	0	11,511	164,000	15.73	
12/26/2015	8,147	0	8,147	164,000	11.13	
12/27/2015	7,694	0	7,694	164,000	10.51	
12/28/2015	7,838	0	7,838	164,000	10.71	
12/29/2015	7,811	0	7,811	164,000	10.67	
12/30/2015	8,800	0	8,800	164,000	12.02	
12/31/2015	16,380	0	16,380	164,000	22.38	
Fourth Quarter 2015 Totals	1,482,816	0	1,482,816	--	1,612	807
Cumulative Total	69,344,648	26,902,604	96,247,252	--	13,580	13,892

Notes:

^a 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.

^b Groundwater removal in the West Side Barrier area was discontinued in August 2008.

^c 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.

-- = not applicable

µg/L = micrograms per liter

BTEX = benzene, toluene, ethylbenzene, and xylenes

MTBE = methyl tertiary butyl ether

TPH-d = total petroleum hydrocarbons quantified as diesel (C13-C22)

TPH-fp = total petroleum hydrocarbons quantified as fuel product (C7-C28)

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TPH-o = total petroleum hydrocarbons quantified as oil (C23-C36)

TPH-total = total petroleum hydrocarbons quantified as gas, diesel, and oil (C4-C36)

Table 6. Extracted Groundwater Analytical Results^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) ^b								
	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	--	--	--	--

Table 6. Extracted Groundwater Analytical Results^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) ^b									
	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)	
1/30/2003	--	--	--	--	--	<0.5	<1	<1	<2	37	--	--	--	--	
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	--	--	--	--	

Table 6. Extracted Groundwater Analytical Results^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) ^b									
	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)	
1/4/2008	4,300	--	--	--	7,200	3,300	49	300	540	620	--	--	--	--	
1/18/2008	11,000	--	--	--	2,200	3,600	140	650	850	620	--	--	--	--	
2/1/2008	8,700	--	--	--	5,700	3,600	100	440	930	560	--	--	--	--	
3/4/2008	7,200	--	--	--	4,900	3,900	120	510	770	620	--	--	--	--	
4/8/2008	8,100	--	--	--	10,000	2,800	96	280	580	640	--	--	--	--	
5/6/2008	5,300	--	--	--	2,800	2,900	76	190	328	430	--	--	--	--	
6/3/2008	8,400	--	--	--	6,800	3,700	110	450	480	320	--	--	--	--	
7/2/2008	9,200	--	--	--	4,300 ^c	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^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) ^b									
	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	--	-- ^d	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^a

SFPP Norwalk Pump Station, Norwalk, California

Date Sampled	EPA 8015M					EPA 8260B Volatile Organic Compounds (VOCs) ^b								
	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
4/7/2015	105,000	92,000	2,900	200,000	--	9,000	2,100	18,000	13,000	1,200	<0.80	8.7	<0.12	17
5/19/2015	73,000	90,000	2,400	165,400	--	8,200	1,600	17,000	12,000	380	<0.60	25	<0.078	<0.078
6/2/2015	78,000	89,000	3,100	170,100	--	3,200	530	3,700	7,100	1,100	<0.60	13	<0.078	8.3
7/30/2015	31,000	16,000	570	47,570	--	3,100	720	5,100	6,200	820	<0.60	27	<0.078	6.2
8/6/2015	30,000	17,000	570	37,570	--	2,600	500	3,100	6,200	700	<0.60	16	<0.078	6.4
9/15/2015	50,000	79,000	2,700	129,000	--	3,200	1,800	6,500	14,000	820	<0.60	15	<0.078	7.7
10/8/2016	51,000	55,000	1,800	107,800	--	5,700	1,400	11,000	11,000	680	<0.60	16	<0.078	6.2
11/24/2015	45,000	74,000	2,800	121,800	--	3,400	1,100	7,000	7,800	<0.31	<1.5	16	<0.20	<0.20
12/3/2015	40,000	120,000	4,000	164,000	--	4,800	1,100	7,700	8,300	580	<1.5	19	<0.20	5.9

Notes:

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

^b Other detected VOCs are included in the laboratory analytical reports in Appendix B.

^c TPH-fp result from extracted groundwater sample collected on July 10, 2008.

^d July 27, 2011, sample and samples after July 20, 2012, were analyzed for TPH-g, TPH-d, and TPH-o.

-- = not analyzed

<500 = Not detected at or above the laboratory reporting limit (RL) shown

µg/L = micrograms per liter

DIPE = di-isopropyl ether

ETBE = ethyl tertiary butyl ether

J = Analyte was detected above the laboratory method detection limit and below the laboratory RL

MTBE = methyl tertiary butyl ether

TAME = tertiary amyl methyl ether

TBA = tertiary butyl alcohol

TPH-d = total petroleum hydrocarbons quantified as diesel (C13-C22)

TPH-fp = total petroleum hydrocarbons quantified as fuel product (C7-C28)

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TPH-o = total petroleum hydrocarbons quantified as oil (C23-C36)

TPH-total = total petroleum hydrocarbons quantified as gasoline, diesel, and oil (C4-C36)

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	37.70	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	33.20	---	---	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	5.30	43.51	Blaine Tech
	8/1/2014	77.16	36.72	32.30	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	3.90	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	3.90	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	36.40	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	39.40	33.13	6.27	42.65	Kinder Morgan	
4/20/2015	77.16	36.98	32.99	3.99	43.29	Blaine Tech	
10/20/2015	77.16	34.61	34.37	0.24	42.74	Kinder Morgan	
GMW-10	04/30/2007	74.67	---	25.90	---	---	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	27.20	---	---	47.47	Blaine Tech
	5/24/2010	74.67	26.72	---	---	47.95	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
	5/28/2010	74.67	26.70	---	---	47.97	Blaine Tech
	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	6.90	---	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	29.80	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	30.00	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
	4/20/2015	73.35	34.99	28.42	6.57	43.71	Blaine Tech
	7/17/2015	73.35	36.10	29.41	6.69	42.70	Blaine Tech
	10/20/2015	73.35	32.96	31.02	1.94	41.97	Kinder Morgan
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	32.30	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	37.90	32.70	5.20	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	36.70	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

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
	8/19/2014	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
	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	36.80	34.71	2.09	42.14	Blaine Tech
	4/20/2015	77.24	36.64	32.84	3.80	43.70	Blaine Tech
	7/24/2015	77.24	39.80	33.70	6.10	42.41	Northstar
	10/20/2015	77.24	36.10	34.92	1.18	42.10	Kinder Morgan
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	32.90	5.05	43.57	Nieto & Sons
	6/4/2014	77.48	37.00	32.70	4.30	43.92	Nieto & Sons
	6/10/2014	77.48	37.85	32.98	4.87	43.53	Nieto & Sons
	7/3/2014	77.48	39.60	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	37.00	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	32.60	4.29	44.02	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
	9/26/2014	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
	10/14/2014	77.48	36.92	32.88	4.04	43.79	Blaine Tech
	10/23/2014	77.48	37.00	32.90	4.10	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	Kinder Morgan
	4/20/2015	77.48	36.29	33.82	2.47	43.09	Blaine Tech
	7/24/2015	77.48	39.80	33.70	6.10	42.38	Blaine Tech
	10/20/2015	77.48	35.44	---	---	42.04	Kinder Morgan
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	37.40	33.00	4.40	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	34.30	2.45	43.28	Nieto & Sons
	5/27/2014	78.14	34.64	34.44	0.20	43.65	Nieto & Sons
	6/4/2014	78.14	35.00	---	---	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	1.20	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	35.10	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	1.10	43.87	Blaine Tech
	11/18/2014	78.14	34.90	34.11	0.79	43.85	Blaine Tech
	11/25/2014	78.14	35.07	34.07	1.00	43.84	Blaine Tech
	12/3/2014	78.14	35.10	33.98	1.12	43.90	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
	12/12/2014	78.14	35.22	34.30	0.92	43.63	Blaine Tech
	12/19/2014	78.14	35.05	34.50	0.55	43.51	Blaine Tech
	4/20/2015	78.14	35.19	34.47	0.72	43.50	Blaine Tech
	6/25/2015	78.14	36.35	35.40	0.95	42.52	Blaine Tech
	10/20/2015	78.14	35.40	35.38	0.02	42.76	Kinder Morgan
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
	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	31.50	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	31.50	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	34.20	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	35.00	31.23	3.77	44.68	Blaine Tech	
9/18/2014	76.66	34.42	31.50	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	1.90	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	

Table 7. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells
SFPF 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
	10/23/2014	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		33.13	70.03	Blaine Tech
	12/3/2014	76.66	32.93	31.75	1.18	44.67	Blaine Tech
	4/20/2015	76.66	33.64	32.20	1.44	44.17	Blaine Tech
	10/21/2015	76.66	33.55	33.16	0.39	43.42	Blaine Tech
GMW-O-11	11/12/2007	74.17	24.40	---	---	49.77	Stantec
	8/15/2008	74.17	29.30	---	---	44.87	Envent
	10/17/2008	74.17	24.45	---	---	49.72	Envent
	12/19/2008	74.17	24.85	---	---	49.32	Envent
	1/15/2009	74.17	26.87	24.38	2.49	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	3.50	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
	4/22/2015	74.17	31.54	28.10	3.44	45.38	Blaine Tech
	10/22/2015	74.17	33.08	29.23	3.85	44.17	Kinder Morgan
GMW-O-12	11/12/2007	73.49	23.13	---	---	50.36	Stantec
	4/14/2008	73.49	23.36	---	---	50.13	Stantec
	10/13/2008	73.49	24.20	---	---	49.29	Stantec
	4/20/2009	73.49	24.21	---	---	49.28	Blaine Tech
	10/19/2009	73.49	25.08	---	---	48.41	Blaine Tech
	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

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
	10/7/2013	73.49	27.34	27.28	0.06	46.20	Blaine Tech
	4/14/2014	73.49	30.34	26.80	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	33.00	27.75	5.25	44.66	Nieto & Sons
	6/10/2014	73.49	34.53	26.81	7.72	45.10	Nieto & Sons
	7/3/2014	73.49	34.27	26.94	7.33	45.05	Blaine Tech
	7/8/2014	73.49	33.87	26.87	7.00	45.19	Blaine Tech
	7/18/2014	73.49	33.36	27.07	6.29	45.13	Blaine Tech
	7/24/2014	73.49	33.00	26.98	6.02	45.28	Blaine Tech
	8/1/2014	73.49	31.80	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	4.30	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	31.30	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	31.20	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	31.30	26.85	4.45	45.73	Blaine Tech
	10/27/2014	73.49	31.28	26.90	4.38	45.69	Blaine Tech
	11/3/2014	73.49	32.30	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	26.90	5.44	45.47	Blaine Tech
	11/25/2014	73.49	31.57	27.87	3.70	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
	4/22/2015	73.49	33.35	26.91	6.44	45.26	Blaine Tech
	5/21/2015	73.49	34.31	27.35	6.96	44.71	Northstar
	5/29/2015	73.49	34.15	27.24	6.91	44.83	Northstar
	6/2/2015	73.49	34.00	27.27	6.73	44.84	Northstar
	6/5/2015	73.49	34.00	27.50	6.50	44.66	Northstar
	6/12/2015	73.49	33.96	27.35	6.61	44.78	Northstar
	6/19/2015	73.49	33.98	27.58	6.40	44.60	Northstar
	6/26/2015	73.49	33.97	28.15	5.82	44.15	Northstar
	7/2/2015	73.49	33.83	28.20	5.63	44.14	Northstar
	7/7/2015	73.49	33.60	27.93	5.67	44.40	Northstar
	7/17/2015	73.49	33.57	27.85	5.72	44.47	Northstar
	7/24/2015	73.49	33.15	28.25	4.90	44.24	Northstar
	7/29/2015	73.49	33.02	28.10	4.92	44.38	Northstar
	8/11/2015	73.49	33.00	28.90	4.10	43.75	Northstar
	8/18/2015	73.49	32.65	28.23	4.42	44.35	Northstar
	8/28/2015	73.49	32.41	28.17	4.24	44.45	Kinder Morgan
	9/1/2015	73.49	33.18	28.65	4.53	43.91	Kinder Morgan
	9/25/2015	73.49	34.69	28.03	6.66	44.09	Kinder Morgan
	10/16/2015	73.49	34.63	27.83	6.80	44.27	Kinder Morgan
	10/19/2015	73.49	34.65	27.82	6.83	44.27	Blaine Tech
	10/30/2015	73.49	39.38	28.11	11.27	43.07	Kinder Morgan
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

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
	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
	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	28.40	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	32.50	28.23	4.27	45.15	Blaine Tech
	9/26/2014	74.23	32.20	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	32.10	28.30	3.80	45.17	Blaine Tech
	10/27/2014	74.23	30.26	no product	0.00	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
	4/20/2015	74.23	31.93	28.82	3.11	44.79	Blaine Tech
	10/19/2015	74.23	31.91	28.89	3.02	44.74	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	24.50	---	---	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

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
	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	28.10	---	---	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	29.90	29.52	0.38	44.76	Blaine Tech
	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	30.00	29.62	0.38	44.66	Blaine Tech
	10/27/2014	74.36	29.95	29.52	0.43	44.75	Blaine Tech
	4/20/2015	74.36	28.53	---	---	45.83	Blaine Tech
	10/19/2015	74.36	30.90	---	---	43.46	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	28.40	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

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	73.32	30.50	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	30.80	27.70	3.10	45.05	Blaine Tech
	10/27/2014	73.32	30.70	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	3.30	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
	4/22/2015	73.32	32.25	27.98	4.27	44.55	Blaine Tech
	10/22/2016	73.32	31.36	29.38	1.98	43.57	Kinder Morgan
GMW-O-21	12/28/2007	71.43	27.67	---	---	43.76	Geomatrix
	10/17/2008	71.43	26.00	---	---	45.43	Envent
	12/19/2008	71.43	24.82	---	---	46.61	Envent
	3/27/2009	71.43	26.41	---	---	45.02	Envent
	7/21/2009	71.43	24.88	---	---	46.55	Envent
	11/9/2009	71.43	25.02	---	---	46.41	Kinder Morgan
	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	29.40	28.72	0.68	42.57	Blaine Tech
	10/27/2014	71.43	29.75	28.93	0.82	42.34	Blaine Tech
	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	
4/20/2015	71.43	30.15	28.99	1.16	42.21	Blaine Tech	
6/10/2015	71.43	31.00	30.70	0.30	40.67	Blaine Tech	
7/2/2015	71.43	32.30	29.88	2.42	41.07	Northstar	
7/7/2015	71.43	30.65	30.06	0.59	41.25	Northstar	
7/17/2015	71.43	30.40	30.10	0.30	41.27	Northstar	
7/29/2015	71.43	30.40	30.10	0.30	41.27	Northstar	
8/11/2015	71.43	31.00	30.70	0.30	40.67	Northstar	
10/19/2015	71.43	31.43	31.20	0.23	40.18	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

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
	1/10/2011	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	28.30	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	32.80	28.65	4.15	44.15	Blaine Tech
	9/26/2014	73.63	32.87	28.70	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	32.50	28.73	3.77	44.15	Blaine Tech
	10/14/2014	73.63	32.75	28.20	4.55	44.52	Blaine Tech
	10/23/2014	73.63	32.80	28.69	4.11	44.12	Blaine Tech
	10/27/2014	73.63	32.51	28.80	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	32.80	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	Kinder Morgan
	4/22/2015	73.63	33.08	30.36	2.72	42.73	Blaine Tech
	10/22/2015	73.63	32.82	30.46	2.36	42.70	Kinder Morgan
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
	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
	4/20/2015	73.05	29.01	---	---	44.04	Blaine Tech
	10/21/2015	73.05	26.69	---	---	46.36	Blaine Tech
GMW-SF-10	4/21/2009	75.77	27.10	---	---	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
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

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
	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	36.20	31.67	4.53	45.16	Blaine Tech
	4/14/2014	77.6	38.80	32.23	6.57	44.25	Blaine Tech
	5/5/2014	77.6	38.81	32.31	6.50	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	33.20	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	2.20	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	2.60	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	33.20	1.95	44.07	Blaine Tech
	10/23/2014	77.6	35.36	33.20	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	1.70	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
	4/20/2015	77.6	37.25	33.34	3.91	43.60	Blaine Tech
	7/24/2015	77.6	41.30	33.95	7.35	42.40	Northstar
	8/12/2015	77.6	37.03	34.42	2.61	42.74	Northstar
	10/20/2015	77.6	35.98	34.65	1.33	42.72	Blaine Tech
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	35.40	---	---	40.27	Blaine Tech
	10/27/2014	75.67	35.81	---	---	39.86	Blaine Tech
	4/20/2015	75.67	36.29	---	---	39.38	Blaine Tech
	10/19/2015	75.67	36.99	---	---	38.68	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

Table 7. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPF 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
	9/11/2007	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
4/20/2015	75.48	30.39	---	---	45.09	Blaine Tech	
10/27/2015	75.48	27.67	---	---	47.81	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
	4/20/2015	71.9	30.94	29.34	1.60	42.24	Blaine Tech
	5/21/2015	71.9	32.50	27.31	5.19	43.55	Northstar
	5/29/2015	71.9	31.52	30.20	1.32	41.44	Northstar
6/5/2015	71.9	31.45	30.57	0.88	41.15	Northstar	
6/12/2015	71.9	31.05	30.60	0.45	41.21	Northstar	
6/19/2015	71.9	31.10	30.90	0.20	40.96	Northstar	
6/26/2015	71.9	31.66	31.37	0.29	40.47	Northstar	
10/19/2015	71.9	32.39	30.53	1.86	41.00	Blaine Tech	
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

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
	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	37.40	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	37.10	34.60	2.50	43.83	Nieto & Sons
	5/27/2014	78.93	36.62	34.30	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	36.60	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	35.30	34.62	0.68	44.17	Blaine Tech
	8/1/2014	78.93	34.74	34.44	0.30	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	34.80	34.43	0.37	44.43	Blaine Tech
	11/10/2014	78.93	34.91	34.51	0.40	44.34	Blaine Tech
	11/18/2014	78.93	34.80	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	0.40	44.07	Blaine Tech
	12/19/2014	78.93	35.34	34.88	0.46	43.96	Blaine Tech
	12/19/2014	78.93	35.34	34.88	0.46	43.96	Blaine Tech
	4/20/2015	78.93	34.89	34.48	0.41	44.37	Blaine Tech
	5/19/2015	78.93	38.45	34.55	3.90	43.60	Northstar
	5/29/2015	78.93	36.36	35.22	1.14	43.48	Northstar
	6/5/2015	78.93	36.50	35.43	1.07	43.29	Northstar
	6/12/2015	78.93	35.80	35.41	0.39	43.44	Northstar
	6/19/2015	78.93	36.02	35.42	0.60	43.39	Northstar
	6/26/2015	78.93	36.60	36.45	0.15	42.45	Northstar
	10/19/2015	78.93	36.35	35.53	0.82	43.24	Blaine Tech
	11/17/2015	78.93	35.65	---	---	43.28	Kinder Morgan
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
	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

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	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	1.50	45.15	Blaine Tech
	4/14/2014	78.53	37.50	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	34.00	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	36.90	33.60	3.30	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	33.60	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	3.50	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	37.40	33.69	3.71	44.10	Blaine Tech
	12/3/2014	78.53	37.16	33.60	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	38.40	33.95	4.45	43.69	Blaine Tech
	4/20/2015	78.53	36.15	34.73	1.42	43.52	Blaine Tech
	6/25/2015	78.53	38.95	35.57	3.38	42.28	Blaine Tech
	10/21/2015	78.53	36.32	36.13	0.19	42.36	Kinder Morgan
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
	9/25/2013	78.12	34.40	---	---	43.72	CH2M HILL
	11/14/2013	78.12	33.26	---	---	44.86	CH2M HILL

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
	4/18/2014	78.12	33.72	33.62	0.10	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
	4/20/2015	78.12	34.52	---	---	43.60	Blaine Tech
	10/21/2015	78.12	35.18	---	---	42.94	Kinder Morgan
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	5.80	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	36.60	35.60	1.00	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
	7/3/2014	79.38	36.98	35.63	1.35	43.47	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
	7/8/2014	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	35.30	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	35.20	0.12	44.16	Blaine Tech
	9/18/2014	79.38	35.55	35.30	0.25	44.03	Blaine Tech
	9/26/2014	79.38	35.56	35.30	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	35.20	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
	4/20/2015	79.38	37.78	35.29	2.49	43.58	Blaine Tech
	5/19/2015	79.38	39.22	35.28	3.94	43.29	Northstar
	5/29/2015	79.38	37.10	35.80	1.30	43.31	Northstar
	6/5/2015	79.38	36.85	36.15	0.70	43.09	Northstar
	6/12/2015	79.38	36.55	36.15	0.40	43.15	Northstar
	6/19/2015	79.38	36.68	36.42	0.26	42.91	Northstar
	6/26/2015	79.38	37.23	36.96	0.27	42.36	Northstar
	10/19/2015	79.38	38.12	36.25	1.87	42.75	Blaine Tech
	11/17/2015	79.38	37.83	35.98	1.85	43.02	Kinder Morgan
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
	4/20/2015	79.74	36.05	---	---	43.69	Blaine Tech
	10/19/2015	79.74	36.82	---	---	42.92	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

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
	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
	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	31.90	---	---	44.90	Blaine Tech
	4/18/2014	76.8	33.30	32.15	1.15	44.42	Blaine Tech
	8/8/2014	76.8	34.50	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	0.30	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	32.60	0.31	44.14	Blaine Tech
	10/6/2014	76.8	32.90	32.61	0.29	44.13	Blaine Tech
	10/14/2014	76.8	33.72	33.60	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	33.60	33.15	0.45	43.56	Blaine Tech
	4/20/2015	76.8	33.23	33.11	0.12	43.67	Blaine Tech
	10/21/2015	76.8	34.28	---	---	42.52	Kinder Morgan
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	6.80	44.89	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
	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	0.80	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	36.40	28.60	7.80	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	1.30	44.01	Blaine Tech
	8/1/2014	74.1	30.25	29.85	0.40	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	30.10	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	29.90	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	0.40	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	0.40	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	30.10	0.55	43.90	Blaine Tech
	12/19/2014	74.1	30.80	30.13	0.67	43.85	Blaine Tech
	4/20/2015	74.1	36.69	27.67	9.02	44.76	Blaine Tech
	5/19/2015	74.1	35.68	26.83	8.85	45.63	Blaine Tech
	5/21/2015	74.1	32.50	27.31	5.19	45.83	Northstar
	5/29/2015	74.1	32.95	30.10	2.85	43.47	Northstar
	6/2/2015	74.1	31.67	30.45	1.22	43.42	Northstar
	6/5/2015	74.1	31.85	30.60	1.25	43.27	Northstar
	6/12/2015	74.1	31.28	30.75	0.53	43.25	Northstar
	6/19/2015	74.1	31.30	31.00	0.30	43.04	Northstar
	6/26/2015	74.1	31.20	29.50	1.70	44.29	Northstar
	8/11/2015	74.1	36.90	29.90	7.00	42.91	Northstar
	8/18/2015	74.1	35.19	30.25	4.94	42.94	Northstar
	8/28/2015	74.1	31.60	30.75	0.85	43.19	Kinder Morgan
	9/1/2015	74.1	31.78	30.90	0.88	43.04	Kinder Morgan
	9/1/2015	74.1	32.01	31.27	0.74	42.69	Kinder Morgan
	10/16/2015	74.1	31.60	31.09	0.51	42.92	Blaine Tech
	10/19/2015	74.1	31.44	31.04	0.40	42.99	Kinder Morgan
	10/30/2015	74.1	32.60	32.06	0.54	41.94	Kinder Morgan
	11/17/2015	74.1	31.71	31.68	0.03	42.41	Kinder Morgan
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	28.50	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	27.60	---	---	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
	4/20/2015	76.53	Dry	---	---	---	Blaine Tech
	10/19/2015	76.53	Dry	---	---	---	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-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	35.20	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	35.40	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
	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	3.00	44.10	Blaine Tech	
10/27/2014	78.56	36.20	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	Kinder Morgan	
4/20/2015	78.56	38.89	34.86	4.03	42.89	Kinder Morgan	
10/20/2015	78.56	37.42	35.38	2.04	42.77	Kinder Morgan	
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

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
	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	37.80	32.90	4.90	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	37.20	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	37.40	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
	12/19/2014	78.07	38.25	33.50	4.75	43.62	Blaine Tech
	3/17/2015	78.07	36.42	34.05	2.37	43.55	Kinder Morgan
	4/20/2015	78.07	36.42	34.05	2.37	43.55	Blaine Tech
	10/20/2015	78.07	36.78	34.84	1.94	42.84	Kinder Morgan
MW-SF-13	8/14/2007	73.40	22.98	---	---	50.42	Geomatrix
	8/21/2007	73.40	23.11	---	---	50.29	Geomatrix
	8/28/2007	73.40	22.85	---	---	50.55	Stantec
	9/11/2007	73.40	23.10	---	---	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

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
	4/8/2013	73.40	27.90	---	---	45.50	Blaine Tech
	11/14/2013	73.4	29.95	28.25	1.70	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	31.10	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	30.20	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	30.50	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	30.10	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	29.40	1.65	43.59	Blaine Tech
	12/19/2014	73.4	31.11	29.40	1.71	43.57	Blaine Tech
	4/20/2015	73.4	32.44	29.04	3.40	43.51	Blaine Tech
	10/19/2015	73.4	35.16	29.31	5.85	42.63	Blaine Tech
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	33.80	0.56	44.25	Blaine Tech
	10/23/2014	78.16	34.49	34.43	0.06	43.72	Blaine Tech

Table 7. Groundwater and Product Measurements and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPF 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
	10/27/2014	78.16	34.40	33.97	0.43	44.10	Blaine Tech
	11/18/2014	78.16	34.27	34.07	0.20	44.05	Blaine Tech
	4/20/2015	78.16	34.48	---	---	43.68	Blaine Tech
	10/21/2015	78.16	35.25	---	---	42.91	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	1.10	48.65	Blaine Tech
	10/10/2011	78.27	29.60	---	---	48.67	Blaine Tech
	12/2/2011	78.27	31.40	30.05	1.35	47.95	Blaine Tech
	4/16/2012	78.27	32.48	32.39	0.09	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	34.90	33.94	0.96	44.14	Blaine Tech
	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
4/20/2015	78.27	36.63	34.12	2.51	43.65	Blaine Tech	
10/19/2015	78.27	37.90	34.87	3.03	42.79	Blaine Tech	
11/17/2015	78.27	37.71	35.36	2.35	42.44	Kinder Morgan	
MW-SF-16	8/14/2007	78.21	27.68	---	---	50.53	Geomatrix
	8/21/2007	78.21	27.33	---	---	50.88	Geomatrix
	8/28/2007	78.21	27.51	---	---	50.70	Stantec
	9/11/2007	78.21	27.59	---	---	50.62	Geomatrix
	10/5/2007	78.21	28.10	---	---	50.11	Geomatrix
	11/2/2007	78.21	29.81	---	---	48.40	Geomatrix
	11/12/2007	78.21	28.40	---	---	49.81	Stantec
	8/15/2008	78.21	29.36	---	---	48.85	Envent
	10/17/2008	78.21	29.51	---	---	48.70	Envent
	12/18/2008	78.21	30.94	---	---	47.27	Envent
	1/15/2009	78.21	30.01	30.00	0.01	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	

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
	11/14/2013	78.21	33.80	33.21	0.59	44.88	Blaine Tech
	4/18/2014	78.21	34.20	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	---	---	43.96	Blaine Tech
	4/20/2015	78.21	34.52	---	---	43.69	Blaine Tech
	6/8/2015	78.21	35.17	35.00	0.17	43.18	Blaine Tech
	10/21/2015	78.21	34.56	---	---	43.65	Kinder Morgan

Notes:

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.

--- = not detected or not applicable

feet btoc = feet below top of casing

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

Figures

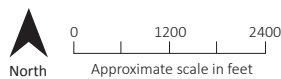
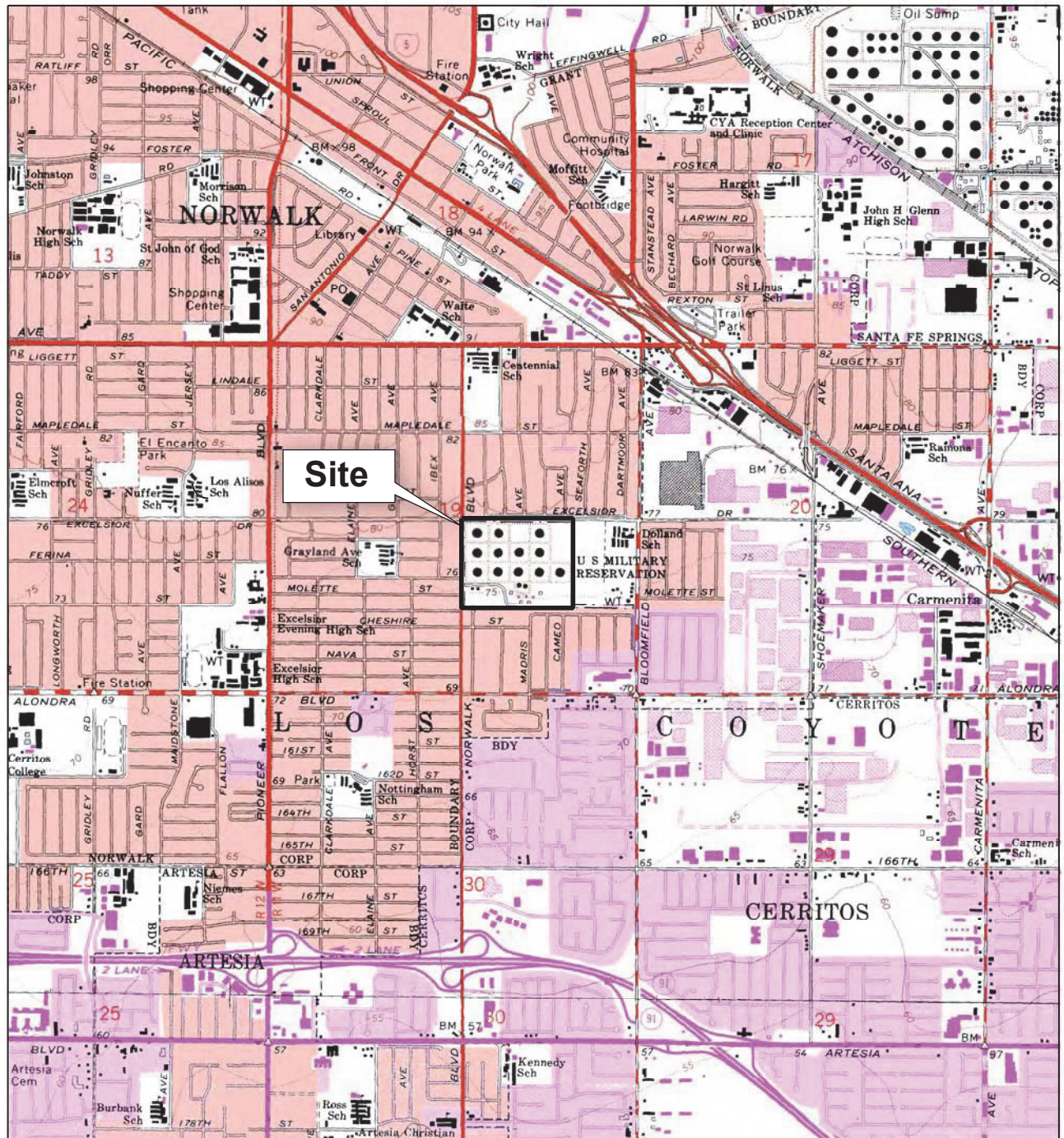
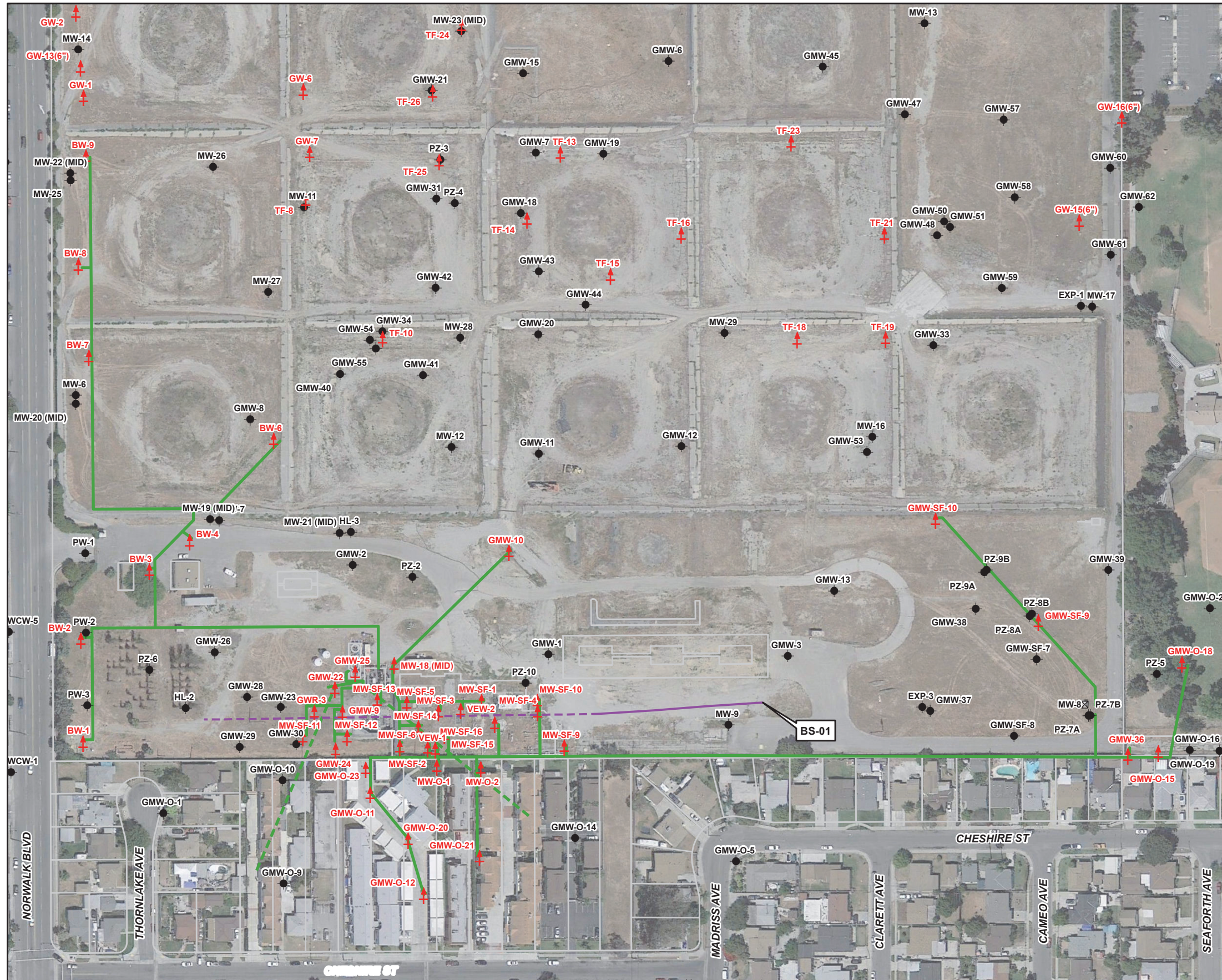


Figure 1
Site Location Map
SFP Norwalk Pump Station
Norwalk, California

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.



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.

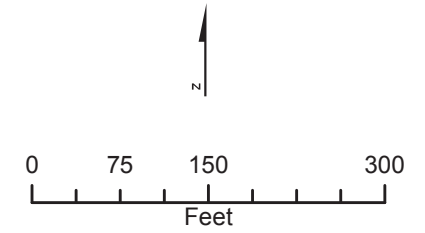


Figure 2
Remediation System Layout
SFPP Norwalk Pump Station
Norwalk, California

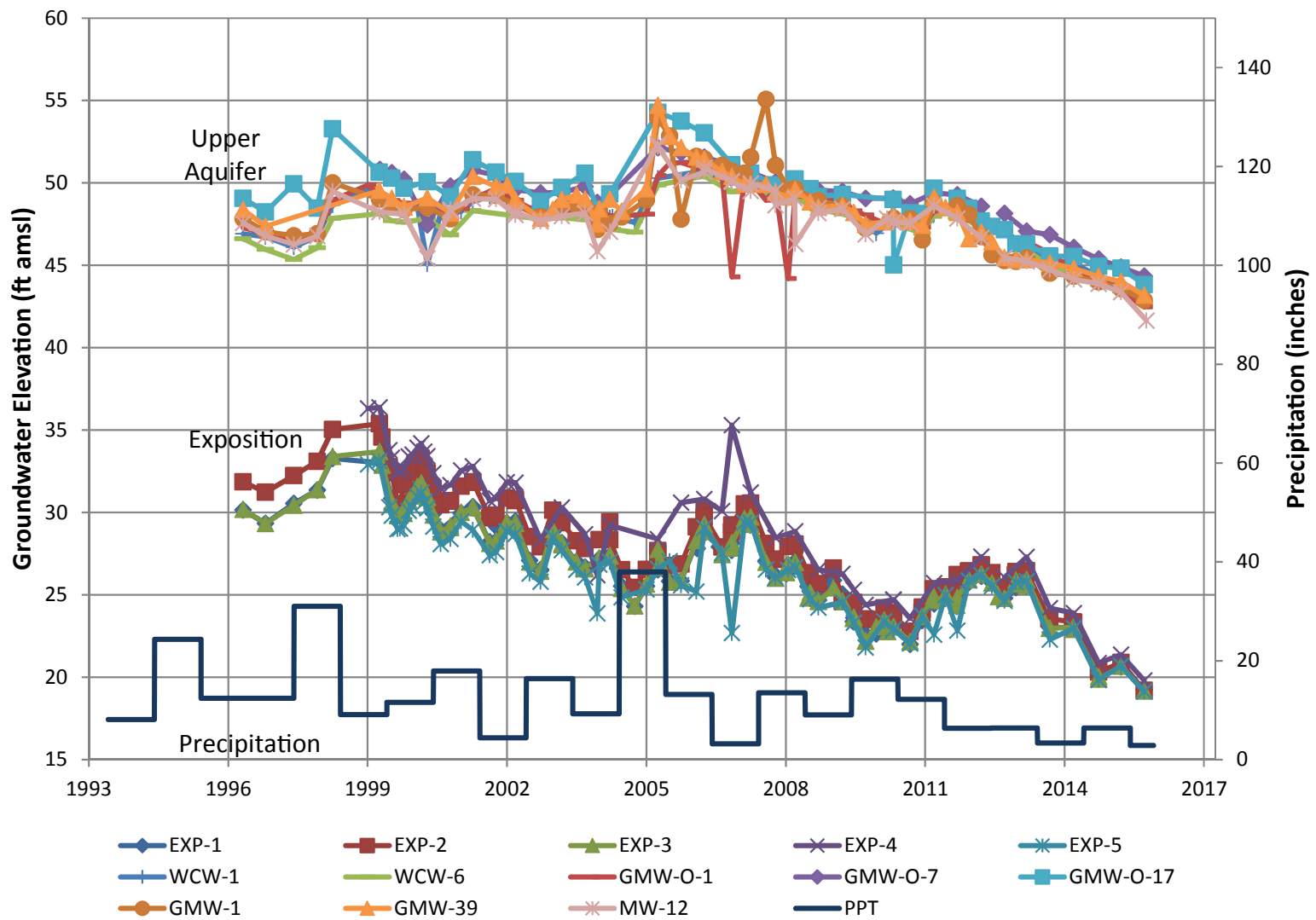


Figure 3
Hydrographs for Select Groundwater Monitoring Wells
SFPP Norwalk Pump Station
Norwalk, California



Appendix A

Summary of System Shutdowns in 2015

Appendix A

Summary of System Shutdowns in 2015

The remediation systems operated continuously during 2015 with exceptions as described below and in previously submitted quarterly progress reports for 2015.

First Quarter 2015

- 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 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 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 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 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.

Second Quarter 2015

- The SVE and the GWTS systems were turned off on April 13, 2015, in preparation for the first semiannual groundwater monitoring event. The systems were restarted on April 22, 2015, once the groundwater gauging was completed.
- The GWTS system was turned off on May 1, 2015, for a carbon changeout of PV-2 for the lead LGAC system. The system was restarted on the same day.
- The GWTS system was turned off on May 7, 2015, to clean out the OWS, sump, equalization tank, and transfer tank. The system was restarted on the same day.
- The GWTS system was turned off on May 1, 2015, due to a broken sump pump. The pump was replaced and the system was restarted on the same day.
- The GWTS system was turned off between May 14 and 15, 2015, due to faulty transfer tank level switches. The switches were repaired and the system was restarted on May 15, 2015.
- The GWTS system was turned off on May 22, 2015, to vacuum and haul off the product accumulated in the product tank. The system was restarted on the same day.

- The SVE system was turned off on May 22, 2015, for repair of the knock-out pot demister. The SVE was restarted on June 30, 2015, after the knock-out pot demister was replaced.

Third Quarter 2015

- The SVE system was turned off on July 15, July 29, and August 6, 2015, for routine system maintenance. In each case, the system was restarted on the same day.
- The SVE system was shut down between August 14 and September 3, 2015, to trouble shoot the reduced destruction efficiency of the SVE. As part of this effort, a visual inspection of the SVE burner and plenum was performed using a closed-circuit television camera. No internal mechanical issues were noted during the inspection. Several air samples were also collected from the SVE influent, post-dilution, and effluent at different temperature and vacuum setpoints to determine optimum conditions for SVE performance. The system was optimized by increasing the temperature setpoint, increasing residence time, and maximizing the influent concentrations by shutting down low-concentration vapor extraction wells. The SVE was restarted on September 4, 2015.
- The SVE system was turned off on September 17, 2015, in preparation for annual soil vapor sampling. The system was restarted on September 25, 2015, once the vapor sampling was completed.
- The GWTS was turned off on July 16, August 25, and September 24, 2015, to clean out the OWS, sump, equalization tank, and transfer tank. In each case, the system was restarted on the same day.
- The GWTS was off on arrival on July 6, 2015, due to a transfer tank alarm. The alarm was reset and the system was restarted on the same day.

Fourth Quarter 2015

- The GWTS was off on arrival on October 10, 2015, due to an equalization tank alarm. A burned out relay was replaced prior to system restart later that day.
- The SVE and GWTS were shut down on October 12, 2015, to facilitate fourth quarter groundwater monitoring activities. The SVE system was restarted on October 22, 2015; the GWTS was restarted on October 26, 2015. During the GWTS downtime, a broken underdrain to an LGAC vessel was repaired. A cleanout of the equalization tank was also performed prior to restarting the system.
- The SVE system was shut down on November 3, 2015, for routine system maintenance. The system was restarted on the same day.
- The GWTS was turned off on November 11 and December 17, 2015, to clean out the OWS, sump, equalization tank, and transfer tank. In both cases, the system was restarted on the same day.
- The GWTS was turned off on November 14, 2015, and restarted on November 19, 2015, after maintenance on the acid delivery system was completed.
- The SVE system was shut down on December 1, 8, 15, and 21, 2015, to drain water from the main manifold. In each case, the system was restarted on the same day.
- The GWTS was off on arrival on December 18, 2015, due to a high transfer tank alarm. The level switch was cleaned out and the system was restarted later that day.
- The SVE system was shut down on December 21, 2015, to facilitate soil excavation activities conducted by Source Group, Inc., near the SVE natural gas line (west of the containment pad). The SVE system was restarted on December 29, 2015, after portions of the gas line were cut and replaced.

Appendix B

Laboratory Analytical Reports

October 14, 2015

CH2M HILL
ATTN: Daniel Jablonski
5742 Costello Ave.
Van Nuys, CA 91401



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175
TX Cert T104704450—14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: SFPP - Norwalk Site
Lab Number: G100707-01/04

Enclosed are results for sample(s) received 10/07/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Dan Jablonski, Vidal Cortes and Steve Defibaugh on 10/14/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

Client: CH2M Hill
 Attn: James Dye
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 10/07/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	G100707-01			G100707-02			G100707-03			G100707-04		
Client Sample LD.:	VINP-10-06			VPOST-10-06			VEFF-10-06			VEFF-10-06-D		
Date/Time Sampled:	10/6/15 12:49			10/6/15 12:41			10/6/15 12:41			10/6/15 12:48		
Date/Time Analyzed:	10/10/15 1:19			10/12/15 15:30			10/9/15 22:34			10/9/15 23:15		
QC Batch No.:	151009MS2A1			151012MS2A1			151009MS2A1			151009MS2A1		
Analyst Initials:	DT			DT			DT			DT		
Dilution Factor:	72			200			1.9			2.0		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Dichlorodifluoromethane (12)	ND	0.072	0.011	ND	0.20	0.030	ND	0.0019	0.00030	ND	0.0020	0.00031
Chloromethane	ND	0.14	0.016	ND	0.40	0.044	ND	0.0039	0.00043	0.0033 J	0.0040	0.00044
1,2-CI-1,1,2,2-F ethane (114)	ND	0.072	0.015	ND	0.20	0.040	ND	0.0019	0.00039	ND	0.0020	0.00041
Vinyl Chloride	ND	0.072	0.012	ND	0.20	0.032	ND	0.0019	0.00032	ND	0.0020	0.00033
Bromomethane	ND	0.072	0.021	0.16 J	0.20	0.058	0.0010 J	0.0019	0.00057	ND	0.0020	0.00059
Chloroethane	ND	0.072	0.061	ND	0.20	0.17	ND	0.0019	0.0016	ND	0.0020	0.0017
Trichlorofluoromethane (11)	ND	0.072	0.016	ND	0.20	0.043	ND	0.0019	0.00042	ND	0.0020	0.00044
1,1-Dichloroethene	ND	0.072	0.016	ND	0.20	0.045	ND	0.0019	0.00044	ND	0.0020	0.00046
Carbon Disulfide	ND	0.36	0.017	0.16 J	0.99	0.048	0.012	0.0097	0.00047	0.012	0.010	0.00048
1,1,2-CI 1,2,2-F ethane (113)	ND	0.072	0.019	ND	0.20	0.053	ND	0.0019	0.00052	ND	0.0020	0.00054
Acetone	0.41	0.36	0.021	ND	0.99	0.057	0.016	0.0097	0.00056	0.11	0.010	0.00058
Methylene Chloride	ND	0.072	0.021	ND	0.20	0.057	ND	0.0019	0.00055	ND	0.0020	0.00058
t-1,2-Dichloroethene	ND	0.072	0.022	ND	0.20	0.059	ND	0.0019	0.00058	ND	0.0020	0.00060
1,1-Dichloroethane	ND	0.072	0.0098	0.047 J	0.20	0.027	ND	0.0019	0.00026	ND	0.0020	0.00028
c-1,2-Dichloroethene	ND	0.072	0.014	ND	0.20	0.038	ND	0.0019	0.00038	ND	0.0020	0.00039
2-Butanone	0.057 J	0.072	0.045	ND	0.20	0.12	0.0051	0.0019	0.0012	0.055	0.0020	0.0012
t-Butyl Methyl Ether (MTBE)	ND	0.072	0.016	ND	0.20	0.044	ND	0.0019	0.00043	ND	0.0020	0.00045
Chloroform	ND	0.072	0.010	ND	0.20	0.028	ND	0.0019	0.00027	ND	0.0020	0.00028
1,1,1-Trichloroethane	ND	0.072	0.0072	ND	0.20	0.020	ND	0.0019	0.00019	ND	0.0020	0.00020
Carbon Tetrachloride	ND	0.072	0.013	ND	0.20	0.034	ND	0.0019	0.00034	ND	0.0020	0.00035
Benzene	5.6	0.072	0.0069	14	0.20	0.019	0.0011 J	0.0019	0.00019	0.0048	0.0020	0.00019
1,2-Dichloroethane	ND	0.072	0.0054	ND	0.20	0.015	ND	0.0019	0.00014	ND	0.0020	0.00015
Trichloroethene	ND	0.072	0.010	ND	0.20	0.028	ND	0.0019	0.00027	ND	0.0020	0.00029
1,2-Dichloropropane	ND	0.072	0.013	ND	0.20	0.036	ND	0.0019	0.00035	ND	0.0020	0.00037
Bromodichloromethane	ND	0.072	0.0043	ND	0.20	0.012	ND	0.0019	0.00012	ND	0.0020	0.00012
c-1,3-Dichloropropene	ND	0.072	0.0086	ND	0.20	0.024	ND	0.0019	0.00023	ND	0.0020	0.00024
4-Methyl-2-Pentanone	ND	0.072	0.0049	ND	0.20	0.013	ND	0.0019	0.00013	0.0017 J	0.0020	0.00014
Toluene	11	0.072	0.0057	25	0.20	0.016	0.0011 J	0.0019	0.00015	0.0024	0.0020	0.00016
t-1,3-Dichloropropene	ND	0.072	0.0075	ND	0.20	0.020	ND	0.0019	0.00020	ND	0.0020	0.00021
1,1,2-Trichloroethane	ND	0.072	0.012	ND	0.20	0.032	ND	0.0019	0.00031	ND	0.0020	0.00033
1,3-Dichloropropane	ND	0.072	0.0036	ND	0.20	0.0099	ND	0.0019	0.000097	ND	0.0020	0.00010
Tetrachloroethene	ND	0.072	0.0087	ND	0.20	0.024	ND	0.0019	0.00023	ND	0.0020	0.00024
2-Hexanone	ND	0.072	0.015	ND	0.20	0.041	ND	0.0019	0.00040	ND	0.0020	0.00042
Dibromochloromethane	ND	0.072	0.013	ND	0.20	0.036	ND	0.0019	0.00035	ND	0.0020	0.00037
1,2-Dibromoethane	ND	0.072	0.0066	ND	0.20	0.018	ND	0.0019	0.00018	ND	0.0020	0.00018
Chlorobenzene	ND	0.072	0.0056	ND	0.20	0.015	ND	0.0019	0.00015	ND	0.0020	0.00016
Ethylbenzene	1.4	0.072	0.0041	3.1	0.20	0.011	0.00022 J	0.0019	0.00011	0.00051 J	0.0020	0.00012
p.&m-Xylene	5.7	0.072	0.0082	12	0.20	0.022	0.0011 J	0.0019	0.00022	0.0017 J	0.0020	0.00023
o-Xylene	1.9	0.072	0.0088	3.9	0.20	0.024	0.00062 J	0.0019	0.00024	0.0013 J	0.0020	0.00025



Client: CH2M Hill
 Attn: James Dye
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 10/07/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	G100707-01			G100707-02			G100707-03			G100707-04		
Client Sample I.D.:	VINP-10-06			VPOST-10-06			VEFF-10-06			VEFF-10-06-D		
Date/Time Sampled:	10/6/15 12:49			10/6/15 12:41			10/6/15 12:41			10/6/15 12:48		
Date/Time Analyzed:	10/10/15 1:19			10/12/15 15:30			10/9/15 22:34			10/9/15 23:15		
QC Batch No.:	151009MS2A1			151012MS2A1			151009MS2A1			151009MS2A1		
Analyst Initials:	DT			DT			DT			DT		
Dilution Factor:	72			200			1.9			2.0		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Styrene	0.10	0.072	0.0093	0.17 J	0.20	0.025	ND	0.0019	0.00025	0.00028 J	0.0020	0.00026
Bromoform	ND	0.072	0.0040	ND	0.20	0.011	ND	0.0019	0.00011	ND	0.0020	0.00011
Isopropyl benzene	0.076	0.072	0.0075	0.15 J	0.20	0.021	ND	0.0019	0.00020	ND	0.0020	0.00021
1,1,2,2-Tetrachloroethane	ND	0.14	0.0044	ND	0.40	0.012	ND	0.0039	0.00012	ND	0.0040	0.00012
Benzyl Chloride	ND	0.072	0.013	ND	0.20	0.036	ND	0.0019	0.00036	ND	0.0020	0.00037
1,2,3-Trichloropropane	ND	0.072	0.019	ND	0.20	0.053	ND	0.0019	0.00052	ND	0.0020	0.00054
n-Propyl benzene	0.16	0.072	0.0042	0.27	0.20	0.012	ND	0.0019	0.00011	ND	0.0020	0.00012
4-Ethyl Toluene	0.78	0.072	0.0046	1.3	0.20	0.013	0.00052 J	0.0019	0.00012	0.00059 J	0.0020	0.00013
1,3,5-Trimethylbenzene	0.23	0.14	0.012	0.39 J	0.40	0.034	ND	0.0039	0.00034	ND	0.0040	0.00035
4-Chlorotoluene	ND	0.072	0.0086	ND	0.20	0.024	ND	0.0019	0.00023	ND	0.0020	0.00024
tert-Butylbenzene	ND	0.072	0.0065	ND	0.20	0.018	ND	0.0019	0.00018	ND	0.0020	0.00018
1,2,4-Trimethylbenzene	0.44	0.14	0.0082	0.64	0.40	0.022	0.0010 J	0.0039	0.00022	0.00098 J	0.0040	0.00023
sec-Butylbenzene	0.012 J	0.072	0.0070	ND	0.20	0.019	ND	0.0019	0.00019	ND	0.0020	0.00020
p-Isopropyltoluene	0.013 J	0.072	0.0094	0.12 J	0.20	0.026	0.0011 J	0.0019	0.00025	0.0013 J	0.0020	0.00026
1,3-Dichlorobenzene	ND	0.072	0.0088	ND	0.20	0.024	ND	0.0019	0.00024	ND	0.0020	0.00025
1,4-Dichlorobenzene	ND	0.072	0.011	ND	0.20	0.029	ND	0.0019	0.00028	ND	0.0020	0.00030
n-Butylbenzene	0.016 J	0.072	0.0053	ND	0.20	0.014	0.00016 J	0.0019	0.00014	ND	0.0020	0.00015
1,2-Dichlorobenzene	ND	0.072	0.0090	ND	0.20	0.025	ND	0.0019	0.00024	ND	0.0020	0.00025
1,2,4-Trichlorobenzene	ND	0.14	0.012	ND	0.40	0.033	ND	0.0039	0.00032	ND	0.0040	0.00033
Hexachlorobutadiene	ND	0.072	0.0042	ND	0.20	0.012	ND	0.0019	0.00011	ND	0.0020	0.00012
t-Butanol	ND	0.36	0.014	ND	0.99	0.038	ND	0.0097	0.00037	ND	0.010	0.00039
n-Hexane	16	0.36	0.0097	39	0.99	0.027	0.00049 J	0.0097	0.00026	0.00099 J	0.010	0.00027
Isopropyl ether	ND	0.36	0.0080	ND	0.99	0.022	ND	0.0097	0.00022	ND	0.010	0.00022
t-Butyl ethyl ether	ND	0.36	0.014	ND	0.99	0.040	ND	0.0097	0.00039	ND	0.010	0.00040
2,2-Dichloropropane	ND	0.36	0.0069	ND	0.99	0.019	ND	0.0097	0.00018	ND	0.010	0.00019
t-Amyl methyl ether	ND	0.36	0.0051	ND	0.99	0.014	ND	0.0097	0.00014	ND	0.010	0.00014
1,4-Dioxane	ND	0.36	0.013	ND	0.99	0.035	ND	0.0097	0.00034	0.0024 J	0.010	0.00035
Naphthalene	ND	0.36	0.028	ND	0.99	0.076	0.0017 J	0.0097	0.00075	0.0017 J	0.010	0.00078
1,2,3-Trichlorobenzene (TIC)	ND	--	--	ND	--	--	ND	--	--	ND	--	--

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Operations Manager

Date: 10/14/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Jame Dye
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 10/07/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15						
Lab No.:	METHOD BLANK			METHOD BLANK		
Client Sample I.D.:	-			-		
Date/Time Sampled:	-			-		
Date/Time Analyzed:	10/9/15 18:29			10/12/15 12:17		
QC Batch No.:	151009MS2A1			151012MS2A1		
Analyst Initials:	DT			DT		
Dilution Factor:	0.20			0.20		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Dichlorodifluoromethane (12)	ND	0.00020	0.000031	ND	0.00020	0.000031
Chloromethane	ND	0.00040	0.000044	ND	0.00040	0.000044
1,2-CI-1,1,2,2-F ethane (114)	ND	0.00020	0.000040	ND	0.00020	0.000040
Vinyl Chloride	ND	0.00020	0.000032	ND	0.00020	0.000032
Bromomethane	ND	0.00020	0.000059	0.00013 J	0.00020	0.000059
Chloroethane	ND	0.00020	0.00017	ND	0.00020	0.00017
Trichlorofluoromethane (11)	ND	0.00020	0.000043	ND	0.00020	0.000043
1,1-Dichloroethene	ND	0.00020	0.000045	ND	0.00020	0.000045
Carbon Disulfide	ND	0.0010	0.000048	ND	0.0010	0.000048
1,1,2-CI 1,2,2-F ethane (113)	ND	0.00020	0.000054	ND	0.00020	0.000054
Acetone	ND	0.0010	0.000058	0.000080 J	0.0010	0.000058
Methylene Chloride	ND	0.00020	0.000057	ND	0.00020	0.000057
t-1,2-Dichloroethene	ND	0.00020	0.000060	ND	0.00020	0.000060
1,1-Dichloroethane	ND	0.00020	0.000027	ND	0.00020	0.000027
c-1,2-Dichloroethene	ND	0.00020	0.000039	ND	0.00020	0.000039
2-Butanone	ND	0.00020	0.00012	ND	0.00020	0.00012
t-Butyl Methyl Ether (MTBE)	ND	0.00020	0.000045	ND	0.00020	0.000045
Chloroform	ND	0.00020	0.000028	ND	0.00020	0.000028
1,1,1-Trichloroethane	ND	0.00020	0.000020	ND	0.00020	0.000020
Carbon Tetrachloride	ND	0.00020	0.000035	ND	0.00020	0.000035
Benzene	0.000045 J	0.00020	0.000019	0.000033 J	0.00020	0.000019
1,2-Dichloroethane	ND	0.00020	0.000015	ND	0.00020	0.000015
Trichloroethene	ND	0.00020	0.000028	ND	0.00020	0.000028
1,2-Dichloropropane	ND	0.00020	0.000036	ND	0.00020	0.000036
Bromodichloromethane	ND	0.00020	0.000012	ND	0.00020	0.000012
c-1,3-Dichloropropene	ND	0.00020	0.000024	ND	0.00020	0.000024
4-Methyl-2-Pentanone	ND	0.00020	0.000013	ND	0.00020	0.000013
Toluene	ND	0.00020	0.000016	ND	0.00020	0.000016
t-1,3-Dichloropropene	ND	0.00020	0.000021	ND	0.00020	0.000021
1,1,2-Trichloroethane	ND	0.00020	0.000032	ND	0.00020	0.000032
1,3-Dichloropropane	ND	0.00020	0.000099	ND	0.00020	0.000099
Tetrachloroethene	ND	0.00020	0.000024	ND	0.00020	0.000024
2-Hexanone	ND	0.00020	0.000041	ND	0.00020	0.000041
Dibromochloromethane	ND	0.00020	0.000036	ND	0.00020	0.000036
1,2-Dibromoethane	ND	0.00020	0.000018	ND	0.00020	0.000018
Chlorobenzene	ND	0.00020	0.000016	ND	0.00020	0.000016
Ethylbenzene	ND	0.00020	0.000011	ND	0.00020	0.000011
p,&m-Xylene	ND	0.00020	0.000023	ND	0.00020	0.000023
o-Xylene	ND	0.00020	0.000024	ND	0.00020	0.000024



Client: CH2M Hill
 Attn: Jame Dye
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 10/07/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK			METHOD BLANK								
Client Sample I.D.:	-			-								
Date/Time Sampled:	-			-								
Date/Time Analyzed:	10/9/15 18:29			10/12/15 12:17								
QC Batch No.:	151009MS2A1			151012MS2A1								
Analyst Initials:	DT			DT								
Dilution Factor:	0.20			0.20								
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv						
Styrene	ND	0.00020	0.000026	ND	0.00020	0.000026						
Bromoform	ND	0.00020	0.000011	ND	0.00020	0.000011						
Isopropyl benzene	ND	0.00020	0.000021	ND	0.00020	0.000021						
1,1,2,2-Tetrachloroethane	ND	0.00040	0.000012	ND	0.00040	0.000012						
Benzyl Chloride	ND	0.00020	0.000037	ND	0.00020	0.000037						
1,2,3-Trichloropropane	ND	0.00020	0.000054	ND	0.00020	0.000054						
n-Propyl Benzene	ND	0.00020	0.000012	ND	0.00020	0.000012						
4-Ethyl Toluene	ND	0.00020	0.000013	ND	0.00020	0.000013						
1,3,5-Trimethylbenzene	ND	0.00040	0.000035	ND	0.00040	0.000035						
4-Chlorotoluene	ND	0.00020	0.000024	ND	0.00020	0.000024						
tert-Butylbenzene	ND	0.00020	0.000018	ND	0.00020	0.000018						
1,2,4-Trimethylbenzene	ND	0.00040	0.000023	ND	0.00040	0.000023						
sec-Butylbenzene	ND	0.00020	0.000019	ND	0.00020	0.000019						
p-Isopropyltoluene	ND	0.00020	0.000026	ND	0.00020	0.000026						
1,3-Dichlorobenzene	ND	0.00020	0.000024	ND	0.00020	0.000024						
1,4-Dichlorobenzene	ND	0.00020	0.000029	ND	0.00020	0.000029						
n-Butylbenzene	ND	0.00020	0.000015	ND	0.00020	0.000015						
1,2-Dichlorobenzene	ND	0.00020	0.000025	ND	0.00020	0.000025						
1,2,4-Trichlorobenzene	ND	0.00040	0.000033	ND	0.00040	0.000033						
Hexachlorobutadiene	ND	0.00020	0.000012	ND	0.00020	0.000012						
t-Butanol	ND	0.0010	0.000038	ND	0.0010	0.000038						
n-Hexane	ND	0.0010	0.000027	ND	0.0010	0.000027						
Isopropyl ether	ND	0.0010	0.000022	ND	0.0010	0.000022						
t-Butyl ethyl ether	ND	0.0010	0.000040	ND	0.0010	0.000040						
2,2-Dichloropropane	ND	0.0010	0.000019	ND	0.0010	0.000019						
t-Amyl methyl ether	ND	0.0010	0.000014	ND	0.0010	0.000014						
1,4-Dioxane	ND	0.0010	0.000035	ND	0.0010	0.000035						
Naphthalene	ND	0.0010	0.000077	ND	0.0010	0.000077						
1,2,3-Trichlorobenzene (TIC)	ND	--	--	ND	--	--						

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 10/14/15

The cover letter is an integral part of this analytical report.



QC Batch No.: 151013GC8A1
 Matrix: Air
 Units: ppmv

QC for TGNMOC by SCAQMD 25.1

Lab No.:	Method Blank			LCS		LCSD			
Date Analyzed:	10/13/2015 13:37			10/13/2015 12:39		10/13/2015 12:53			
Analyst Initials:	AS			AS		AS			
Datafile:	13oct010			13oct006		13oct007			
Dilution Factor:	1.0			1.0		1.0			
ANALYTE	Results	RL	MDL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
TGNMOC as Hexane	ND	1.7	0.51	123	70-130%	123	70-130%	0.4	<30
Methane	ND	10	1.1	94	70-130%	94	70-130%	0.6	<30

ND = Not Detected (Below MDL)

RL = Reporting Limit

MDL = Method Detection Limit

J = Trace amount below the RL and equal to or above the MDL

Reviewed/Approved By: _____

Mark J. Johnson
 Operations Manager

Date: _____

10/14/15

The cover letter is an integral part of this analytical report.



Client: CH2M Hill
 Attn: James Dye
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 10/07/15
 Matrix: Air
 Reporting Units: % v/v

ASTM D1946

Lab No.:	G100707-01	G100707-02							
Client Sample I.D.:	VINF-10-06	VPOST-10-06							
Date/Time Sampled:	10/6/15 12:49	10/6/15 12:41							
Date/Time Analyzed:	10/13/15 20:36	10/13/15 19:53							
QC Batch No.:	151013GC8A1	151013GC8A1							
Analyst Initials:	AS	AS							
Dilution Factor:	2.1	2.0							
ANALYTE	Result % v/v	RL % v/v	MDL % v/v	Result % v/v	RL % v/v	MDL % v/v			
Carbon Dioxide	0.21	0.021	0.00087	0.43	0.020	0.00084			
Oxygen/Argon	22	1.0	0.076	21	0.99	0.073			
Nitrogen	78	2.1	0.30	78	2.0	0.29			
Methane	0.0029	0.0021	0.000094	0.0067	0.0020	0.000091			

Results normalized including non-methane hydrocarbons
 MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 10/14/15

The cover letter is an integral part of this analytical report



QC Batch No.: 151013GC8A1
Matrix: Air
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS	LCSD						
Date/Time Analyzed:	10/13/15 13:37	10/13/15 12:39	10/13/15 12:53						
Analyst Initials:	AS	AS	AS						
Datafile:	13oct010	13oct006	13oct007						
Dilution Factor:	1.0	1.0	1.0						
ANALYTE	Results	RL	MDL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	0.0010 J	0.010	0.00042	90	70-130%	90	70-130%	0.4	<30
Oxygen/Argon	0.15 J	0.50	0.037	104	70-130%	104	70-130%	0.0	<30
Nitrogen	0.50 J	1.0	0.14	103	70-130%	103	70-130%	0.1	<30
Methane	ND	0.0010	0.00005	94	70-130%	94	70-130%	0.6	<30

ND = Not Detected (Below MDL)

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____

Mark J. Johnson
Mark J. Johnson
Operations Manager

Date: _____

10/14/15

The cover letter is an integral part of this analytical report.



November 20, 2015

CH2M HILL
ATTN: Daniel Jablonski
5742 Costello Ave.
Van Nuys, CA 91401



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175
TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: SFPP - Norwalk Site
Lab Number: G111110-01/04

Enclosed are results for sample(s) received 11/11/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Dan Jablonski, Vidal Cortes and Steve Defibaugh on 11/18/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink that appears to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	G111110-01			G111110-02			G111110-03			G111110-04		
Client Sample I.D.:	VEFF-11-10			VEFF-11-10-D			VPOST-11-10			VINP-11-10		
Date/Time Sampled:	11/10/15 11:28			11/10/15 11:33			11/10/15 11:37			11/10/15 11:42		
Date/Time Analyzed:	11/12/15 22:19			11/12/15 22:58			11/12/15 23:36			11/13/15 0:15		
QC Batch No.:	151112MS2A1			151112MS2A1			151112MS2A1			151112MS2A1		
Analyst Initials:	VM			VM			VM			VM		
Dilution Factor:	1.9			1.9			97			84		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Dichlorodifluoromethane (12)	ND	0.0019	0.00030	ND	0.0019	0.00030	ND	0.097	0.015	ND	0.084	0.013
Chloromethane	ND	0.0039	0.00043	ND	0.0039	0.00043	ND	0.19	0.021	ND	0.17	0.019
1,2-CI-1,1,2,2-F ethane (114)	ND	0.0019	0.00039	ND	0.0019	0.00039	ND	0.097	0.020	ND	0.084	0.017
Vinyl Chloride	ND	0.0019	0.00032	ND	0.0019	0.00032	ND	0.097	0.016	ND	0.084	0.014
Bromomethane	ND	0.0019	0.00057	ND	0.0019	0.00057	ND	0.097	0.028	ND	0.084	0.025
Chloroethane	ND	0.0019	0.0016	ND	0.0019	0.0016	ND	0.097	0.082	ND	0.084	0.071
Trichlorofluoromethane (11)	ND	0.0019	0.00042	ND	0.0019	0.00042	ND	0.097	0.021	ND	0.084	0.018
1,1-Dichloroethene	ND	0.0019	0.00044	ND	0.0019	0.00044	ND	0.097	0.022	ND	0.084	0.019
Carbon Disulfide	0.020	0.0097	0.00047	0.011	0.0097	0.00047	0.060 J	0.49	0.023	ND	0.42	0.020
1,1,2-CI 1,2,2-F ethane (113)	ND	0.0019	0.00052	ND	0.0019	0.00052	ND	0.097	0.026	ND	0.084	0.023
Acetone	0.0079 J	0.0097	0.00056	0.0048 J	0.0097	0.00056	0.83	0.49	0.028	ND	0.42	0.024
Methylene Chloride	ND	0.0019	0.00055	ND	0.0019	0.00055	ND	0.097	0.028	ND	0.084	0.024
t-1,2-Dichloroethene	ND	0.0019	0.00058	ND	0.0019	0.00058	ND	0.097	0.029	ND	0.084	0.025
1,1-Dichloroethane	ND	0.0019	0.00026	ND	0.0019	0.00026	ND	0.097	0.013	ND	0.084	0.011
c-1,2-Dichloroethene	ND	0.0019	0.00038	ND	0.0019	0.00038	ND	0.097	0.019	ND	0.084	0.016
2-Butanone	0.0017 J	0.0019	0.0012	ND	0.0019	0.0012	0.96	0.097	0.060	0.099	0.084	0.052
t-Butyl Methyl Ether (MTBE)	0.0014 J	0.0019	0.00043	0.0025	0.0019	0.00043	ND	0.097	0.022	ND	0.084	0.019
Chloroform	ND	0.0019	0.00027	ND	0.0019	0.00027	ND	0.097	0.014	ND	0.084	0.012
1,1,1-Trichloroethane	ND	0.0019	0.00019	ND	0.0019	0.00019	ND	0.097	0.0097	ND	0.084	0.0084
Carbon Tetrachloride	ND	0.0019	0.00034	ND	0.0019	0.00034	ND	0.097	0.017	ND	0.084	0.015
Benzene	0.0026	0.0019	0.00019	0.0027	0.0019	0.00019	9.1	0.097	0.0093	5.0	0.084	0.0081
1,2-Dichloroethane	ND	0.0019	0.00014	ND	0.0019	0.00014	ND	0.097	0.0072	ND	0.084	0.0063
Trichloroethene	ND	0.0019	0.00027	ND	0.0019	0.00027	ND	0.097	0.014	ND	0.084	0.012
1,2-Dichloropropane	ND	0.0019	0.00035	ND	0.0019	0.00035	ND	0.097	0.018	ND	0.084	0.015
Bromodichloromethane	ND	0.0019	0.00012	ND	0.0019	0.00012	ND	0.097	0.0058	ND	0.084	0.0051
c-1,3-Dichloropropene	ND	0.0019	0.00023	ND	0.0019	0.00023	ND	0.097	0.012	ND	0.084	0.010
4-Methyl-2-Pentanone	ND	0.0019	0.00013	ND	0.0019	0.00013	ND	0.097	0.0065	ND	0.084	0.0057
Toluene	0.010	0.0019	0.00015	0.0055	0.0019	0.00015	15	0.097	0.0077	9.9	0.084	0.0067
t-1,3-Dichloropropene	ND	0.0019	0.00020	ND	0.0019	0.00020	ND	0.097	0.010	ND	0.084	0.0087
1,1,2-Trichloroethane	ND	0.0019	0.00031	ND	0.0019	0.00031	ND	0.097	0.016	ND	0.084	0.014
1,3-Dichloropropane	ND	0.0019	0.000097	ND	0.0019	0.000097	ND	0.097	0.0048	ND	0.084	0.0042
Tetrachloroethene	ND	0.0019	0.00023	ND	0.0019	0.00023	ND	0.097	0.012	ND	0.084	0.010
2-Hexanone	ND	0.0019	0.00040	ND	0.0019	0.00040	ND	0.097	0.020	ND	0.084	0.017
Dibromochloromethane	ND	0.0019	0.00035	ND	0.0019	0.00035	ND	0.097	0.018	ND	0.084	0.015
1,2-Dibromoethane	ND	0.0019	0.00018	ND	0.0019	0.00018	ND	0.097	0.0089	ND	0.084	0.0077
Chlorobenzene	ND	0.0019	0.00015	ND	0.0019	0.00015	ND	0.097	0.0076	ND	0.084	0.0066
Ethylbenzene	0.0023	0.0019	0.00011	0.0011 J	0.0019	0.00011	1.8	0.097	0.0056	1.3	0.084	0.0048
p,&m-Xylene	0.013	0.0019	0.00022	0.0054	0.0019	0.00022	7.0	0.097	0.011	6.2	0.084	0.0095
o-Xylene	0.0058	0.0019	0.00024	0.0022	0.0019	0.00024	2.4	0.097	0.012	2.3	0.084	0.010



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	G111110-01			G111110-02			G111110-03			G111110-04		
Client Sample I.D.:	VEFF-11-10			VEFF-11-10-D			VPOST-11-10			VINP-11-10		
Date/Time Sampled:	11/10/15 11:28			11/10/15 11:33			11/10/15 11:37			11/10/15 11:42		
Date/Time Analyzed:	11/12/15 22:19			11/12/15 22:58			11/12/15 23:36			11/13/15 0:15		
QC Batch No.:	151112MS2A1			151112MS2A1			151112MS2A1			151112MS2A1		
Analyst Initials:	VM			VM			VM			VM		
Dilution Factor:	1.9			1.9			97			84		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Styrene	0.00044 J	0.0019	0.00025	ND	0.0019	0.00025	0.13	0.097	0.012	0.11	0.084	0.011
Bromoform	ND	0.0019	0.00011	ND	0.0019	0.00011	ND	0.097	0.0054	ND	0.084	0.0047
Isopropyl benzene	ND	0.0019	0.00020	ND	0.0019	0.00020	0.080 J	0.097	0.010	0.065 J	0.084	0.0088
1,1,2,2-Tetrachloroethane	ND	0.0039	0.00012	ND	0.0039	0.00012	ND	0.19	0.0059	ND	0.17	0.0052
Benzyl Chloride	ND	0.0019	0.00036	ND	0.0019	0.00036	ND	0.097	0.018	ND	0.084	0.015
1,2,3-Trichloropropane	ND	0.0019	0.00052	ND	0.0019	0.00052	ND	0.097	0.026	ND	0.084	0.023
n-Propyl Benzene	0.00065 J	0.0019	0.00011	ND	0.0019	0.00011	0.14	0.097	0.0057	0.15	0.084	0.0049
4-Ethyl Toluene	0.0045	0.0019	0.00012	0.0011 J	0.0019	0.00012	0.78	0.097	0.0061	1.0	0.084	0.0053
1,3,5-Trimethylbenzene	0.0017 J	0.0039	0.00034	0.00042 J	0.0039	0.00034	0.26	0.19	0.017	0.35	0.17	0.015
4-Chlorotoluene	ND	0.0019	0.00023	ND	0.0019	0.00023	ND	0.097	0.012	ND	0.084	0.010
tert-Butylbenzene	ND	0.0019	0.00018	ND	0.0019	0.00018	ND	0.097	0.0088	ND	0.084	0.0076
1,2,4-Trimethylbenzene	0.0051	0.0039	0.00022	0.0010 J	0.0039	0.00022	0.39	0.19	0.011	0.60	0.17	0.0096
sec-Butylbenzene	ND	0.0019	0.00019	ND	0.0019	0.00019	0.012 J	0.097	0.0094	0.012 J	0.084	0.0082
p-Isopropyltoluene	ND	0.0019	0.00025	0.00037 J	0.0019	0.00025	0.084 J	0.097	0.013	0.020 J	0.084	0.011
1,3-Dichlorobenzene	ND	0.0019	0.00024	ND	0.0019	0.00024	ND	0.097	0.012	ND	0.084	0.010
1,4-Dichlorobenzene	ND	0.0019	0.00028	ND	0.0019	0.00028	ND	0.097	0.014	ND	0.084	0.012
n-Butylbenzene	ND	0.0019	0.00014	ND	0.0019	0.00014	0.012 J	0.097	0.0071	ND	0.084	0.0062
1,2-Dichlorobenzene	ND	0.0019	0.00024	ND	0.0019	0.00024	ND	0.097	0.012	ND	0.084	0.010
1,2,4-Trichlorobenzene	ND	0.0039	0.00032	ND	0.0039	0.00032	ND	0.19	0.016	ND	0.17	0.014
Hexachlorobutadiene	ND	0.0019	0.00011	ND	0.0019	0.00011	ND	0.097	0.0057	ND	0.084	0.0049
t-Butanol	ND	0.0097	0.00037	ND	0.0097	0.00037	ND	0.49	0.019	ND	0.42	0.016
n-Hexane	0.0051 J	0.0097	0.00026	0.0040 J	0.0097	0.00026	34 d	0.97	0.025	18	0.42	0.011
Isopropyl ether	ND	0.0097	0.00022	ND	0.0097	0.00022	ND	0.49	0.011	ND	0.42	0.0094
t-Butyl ethyl ether	ND	0.0097	0.00039	ND	0.0097	0.00039	ND	0.49	0.019	ND	0.42	0.017
2,2-Dichloropropane	ND	0.0097	0.00018	ND	0.0097	0.00018	ND	0.49	0.0092	ND	0.42	0.0080
t-Amyl methyl ether	ND	0.0097	0.00014	ND	0.0097	0.00014	ND	0.49	0.0069	ND	0.42	0.0059
1,4-Dioxane	ND	0.0097	0.00034	ND	0.0097	0.00034	ND	0.49	0.017	ND	0.42	0.015
Naphthalene	ND	0.0097	0.00075	ND	0.0097	0.00075	ND	0.49	0.037	ND	0.42	0.032
1,2,3-Trichlorobenzene (TIC)	ND	--	--	ND	--	--	ND	--	--	ND	--	--

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.
 d = Analyte reported from secondary dilution. Batch ID: 151117MS2A1

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/18/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK			METHOD BLANK									
Client Sample I.D.:	-			-									
Date/Time Sampled:	-			-									
Date/Time Analyzed:	11/12/15 13:14			11/17/15 13:09									
QC Batch No.:	151112MS2A1			151117MS2A1									
Analyst Initials:	VM			VM									
Dilution Factor:	0.20			0.20									
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv							
Dichlorodifluoromethane (12)	ND	0.00020	0.000031	ND	0.00020	0.000031							
Chloromethane	ND	0.00040	0.000044	ND	0.00040	0.000044							
1,2-CI-1,1,2,2-F ethane (114)	ND	0.00020	0.000040	ND	0.00020	0.000040							
Vinyl Chloride	ND	0.00020	0.000032	ND	0.00020	0.000032							
Bromomethane	0.000071 J	0.00020	0.000059	0.00010 J	0.00020	0.000059							
Chloroethane	ND	0.00020	0.00017	ND	0.00020	0.00017							
Trichlorofluoromethane (11)	ND	0.00020	0.000043	ND	0.00020	0.000043							
1,1-Dichloroethene	ND	0.00020	0.000045	ND	0.00020	0.000045							
Carbon Disulfide	ND	0.0010	0.000048	ND	0.0010	0.000048							
1,1,2-CI 1,2,2-F ethane (113)	ND	0.00020	0.000054	ND	0.00020	0.000054							
Acetone	ND	0.0010	0.000058	ND	0.0010	0.000058							
Methylene Chloride	ND	0.00020	0.000057	ND	0.00020	0.000057							
t-1,2-Dichloroethene	ND	0.00020	0.000060	ND	0.00020	0.000060							
1,1-Dichloroethane	ND	0.00020	0.000027	ND	0.00020	0.000027							
c-1,2-Dichloroethene	ND	0.00020	0.000039	ND	0.00020	0.000039							
2-Butanone	ND	0.00020	0.00012	ND	0.00020	0.00012							
t-Butyl Methyl Ether (MTBE)	ND	0.00020	0.000045	ND	0.00020	0.000045							
Chloroform	ND	0.00020	0.000028	ND	0.00020	0.000028							
1,1,1-Trichloroethane	ND	0.00020	0.000020	ND	0.00020	0.000020							
Carbon Tetrachloride	ND	0.00020	0.000035	ND	0.00020	0.000035							
Benzene	0.000021 J	0.00020	0.000019	ND	0.00020	0.000019							
1,2-Dichloroethane	ND	0.00020	0.000015	ND	0.00020	0.000015							
Trichloroethene	ND	0.00020	0.000028	ND	0.00020	0.000028							
1,2-Dichloropropane	ND	0.00020	0.000036	ND	0.00020	0.000036							
Bromodichloromethane	ND	0.00020	0.000012	ND	0.00020	0.000012							
c-1,3-Dichloropropene	ND	0.00020	0.000024	ND	0.00020	0.000024							
4-Methyl-2-Pentanone	ND	0.00020	0.000013	ND	0.00020	0.000013							
Toluene	ND	0.00020	0.000016	ND	0.00020	0.000016							
t-1,3-Dichloropropene	ND	0.00020	0.000021	ND	0.00020	0.000021							
1,1,2-Trichloroethane	ND	0.00020	0.000032	ND	0.00020	0.000032							
1,3-Dichloropropane	ND	0.00020	0.000009	ND	0.00020	0.000009							
Tetrachloroethene	ND	0.00020	0.000024	ND	0.00020	0.000024							
2-Hexanone	ND	0.00020	0.000041	ND	0.00020	0.000041							
Dibromochloromethane	ND	0.00020	0.000036	ND	0.00020	0.000036							
1,2-Dibromoethane	ND	0.00020	0.000018	ND	0.00020	0.000018							
Chlorobenzene	ND	0.00020	0.000016	ND	0.00020	0.000016							
Ethylbenzene	ND	0.00020	0.000011	ND	0.00020	0.000011							
p.&m-Xylene	ND	0.00020	0.000023	ND	0.00020	0.000023							
o-Xylene	ND	0.00020	0.000024	ND	0.00020	0.000024							



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15										
Lab No.:	METHOD BLANK			METHOD BLANK						
Client Sample I.D.:	-			-						
Date/Time Sampled:	-			-						
Date/Time Analyzed:	11/12/15 13:14			11/17/15 13:09						
QC Batch No.:	151112MS2A1			151117MS2A1						
Analyst Initials:	VM			VM						
Dilution Factor:	0.20			0.20						
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv				
Styrene	ND	0.00020	0.000026	ND	0.00020	0.000026				
Bromoform	ND	0.00020	0.000011	ND	0.00020	0.000011				
Isopropyl benzene	ND	0.00020	0.000021	ND	0.00020	0.000021				
1,1,2,2-Tetrachloroethane	ND	0.00040	0.000012	ND	0.00040	0.000012				
Benzyl Chloride	ND	0.00020	0.000037	ND	0.00020	0.000037				
1,2,3-Trichloropropane	ND	0.00020	0.000054	ND	0.00020	0.000054				
n-Propyl Benzene	ND	0.00020	0.000012	ND	0.00020	0.000012				
4-Ethyl Toluene	ND	0.00020	0.000013	ND	0.00020	0.000013				
1,3,5-Trimethylbenzene	ND	0.00040	0.000035	ND	0.00040	0.000035				
4-Chlorotoluene	ND	0.00020	0.000024	ND	0.00020	0.000024				
tert-Butylbenzene	ND	0.00020	0.000018	ND	0.00020	0.000018				
1,2,4-Trimethylbenzene	ND	0.00040	0.000023	ND	0.00040	0.000023				
sec-Butylbenzene	ND	0.00020	0.000019	ND	0.00020	0.000019				
p-Isopropyltoluene	ND	0.00020	0.000026	ND	0.00020	0.000026				
1,3-Dichlorobenzene	ND	0.00020	0.000024	ND	0.00020	0.000024				
1,4-Dichlorobenzene	ND	0.00020	0.000029	ND	0.00020	0.000029				
n-Butylbenzene	ND	0.00020	0.000015	ND	0.00020	0.000015				
1,2-Dichlorobenzene	ND	0.00020	0.000025	ND	0.00020	0.000025				
1,2,4-Trichlorobenzene	ND	0.00040	0.000033	ND	0.00040	0.000033				
Hexachlorobutadiene	ND	0.00020	0.000012	ND	0.00020	0.000012				
t-Butanol	ND	0.0010	0.000038	ND	0.0010	0.000038				
n-Hexane	0.00059 J	0.0010	0.000027	ND	0.0010	0.000027				
Isopropyl ether	ND	0.0010	0.000022	ND	0.0010	0.000022				
t-Butyl ethyl ether	ND	0.0010	0.000040	ND	0.0010	0.000040				
2,2-Dichloropropane	ND	0.0010	0.000019	ND	0.0010	0.000019				
t-Amyl methyl ether	ND	0.0010	0.000014	ND	0.0010	0.000014				
1,4-Dioxane	ND	0.0010	0.000035	ND	0.0010	0.000035				
Naphthalene	ND	0.0010	0.000077	ND	0.0010	0.000077				
1,2,3-Trichlorobenzene (TIC)	ND	--	--	ND	--	--				

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 11/18/15

The cover letter is an integral part of this analytical report



QC Batch #: 151112MS2A1

Matrix: Air

EPA Method TO-14/TO-15											
Lab No:	Method Blank		LCS		LCSD						
Date/Time Analyzed:	11/12/15 13:14		11/12/15 11:16		11/12/15 12:13						
Data File ID:	12NOV005.D		12NOV003.D		12NOV004.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	0.2		1.0		1.0		Limits				
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/Fail
1,1-Dichloroethene	0.0	10.0	9.2	92	8.9	89	2.3	70	130	30	Pass
Methylene Chloride	0.0	10.0	9.1	91	9.2	92	0.7	70	130	30	Pass
Trichloroethene	0.0	10.0	9.5	95	8.9	89	5.6	70	130	30	Pass
Toluene	0.0	10.0	9.2	92	8.9	89	3.9	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	10.1	101	9.8	98	3.7	70	130	30	Pass

RPD = Relative Percent Difference

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 11/18/15

The cover letter is an integral part of this analytical report



QC Batch #: 151117MS2A1

Matrix: Air

EPA Method TO-14/TO-15

Lab No:	Method Blank		LCS		LCSD						
Date/Time Analyzed:	11/17/15 13:09		11/17/15 10:33		11/17/15 11:11						
Data File ID:	17NOV008.D		17NOV004.D		17NOV005.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	0.2		1.0		1.0		Limits				
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/Fail
1,1-Dichloroethene	0.0	10.0	9.2	92	8.7	87	5.3	70	130	30	Pass
Methylene Chloride	0.0	10.0	9.4	94	8.9	89	4.5	70	130	30	Pass
Trichloroethene	0.0	10.0	9.5	95	8.9	89	5.5	70	130	30	Pass
Toluene	0.0	10.0	9.3	93	8.9	89	4.2	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	10.4	104	9.9	99	4.6	70	130	30	Pass

RPD = Relative Percent Difference

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 11/18/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA METHOD TO3

Lab No.:	G111110-01	G111110-02	G111110-03	G111110-04								
Client Sample I.D.:	VEFF-11-10	VEFF-11-10-D	VPOST-11-10	VINF-11-10								
Date/Time Sampled:	11/10/15 11:28	11/10/15 11:33	11/10/15 11:37	11/10/15 11:42								
Date/Time Analyzed:	11/17/15 15:23	11/17/15 15:46	11/17/15 16:55	11/17/15 17:18								
QC Batch No.:	151117GC11A1	151117GC11A1	151117GC11A1	151117GC11A1								
Analyst Initials:	AS	AS	AS	AS								
Dilution Factor:	1.9	1.9	19	17								
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
TVOC as Gasoline	0.56 J	1.9	0.23	0.44 J	1.9	0.23	940	19	2.3	500	17	2.0

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____

Mark Johnson
 Mark Johnson
 Operations Manager

Date _____

11/18/15

The cover letter is an integral part of this analytical report.



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA METHOD TO3

Lab No.:	G111110-01	G111110-02	G111110-03	G111110-04				
Client Sample I.D.:	VEFF-11-10	VEFF-11-10-D	VPOST-11-10	VINF-11-10				
Date/Time Sampled:	11/10/15 11:28	11/10/15 11:33	11/10/15 11:37	11/10/15 11:42				
Date/Time Analyzed:	11/17/15 15:23	11/17/15 15:46	11/17/15 16:55	11/17/15 17:18				
QC Batch No.:	151117GC11A1	151117GC11A1	151117GC11A1	151117GC11A1				
Analyst Initials:	AS	AS	AS	AS				
Dilution Factor:	1.9	1.9	19	17				
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
TVOC as Diesel (C8 - C12)	ND	1.9	ND	1.9	420	19	280	17

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/18/15

The cover letter is an integral part of this analytical report



QC Batch No: 151117GC11A1

Matrix: Air

Reporting Units: ppmv

EPA METHOD TO3
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK	LCS	LCSD								
Date Analyzed:	11/17/15 12:20	11/17/15 11:12	11/17/15 11:34								
Analyst Initials:	AS	AS	AS								
Dilution Factor:	1.0	1.0	1.0								
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	% Rec.	Result ppmv	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
TVOC as Diesel	ND	1.0	1.0	78.7	86	79.6	87	1.2	70	130	25

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____

Mark Johnson
Mark Johnson
Operations Manager

Date 11/18/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA METHOD TO3

Lab No.:	G111110-01			G111110-02			G111110-03			G111110-04		
Client Sample I.D.:	VEFF-11-10			VEFF-11-10-D			VPOST-11-10			VINP-11-10		
Date/Time Sampled:	11/10/15 11:28			11/10/15 11:33			11/10/15 11:37			11/10/15 11:42		
Date/Time Analyzed:	11/17/15 15:23			11/17/15 15:46			11/17/15 16:55			11/17/15 17:18		
QC Batch No.:	151117GC11A1			151117GC11A1			151117GC11A1			151117GC11A1		
Analyst Initials:	AS			AS			AS			AS		
Dilution Factor:	1.9			1.9			19			17		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
TVOC as Hexane	ND	1.9	0.34	ND	1.9	0.34	860	19	3.4	460	17	3.0

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 11/18/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 11/11/15
 Matrix: Air
 Reporting Units: % v/v

ASTM D1946

Lab No.:	G111110-04			
Client Sample I.D.:	VINF-11-10			
Date/Time Sampled:	11/10/15 11:42			
Date/Time Analyzed:	11/12/15 14:53			
QC Batch No.:	151112GC8A2			
Analyst Initials:	AS			
Dilution Factor:	2.1			

ANALYTE	Result % v/v	RL % v/v						
Carbon Dioxide	0.30	0.021						
Oxygen/Argon	21	1.1						
Nitrogen	78	2.1						
Methane	0.0028	0.0021						

Results normalized including non-methane hydrocarbons
 ND = Not Detected (below RL)
 RL = Reporting Limit

Reviewed/Approved By: *Mark Johnson*
 Mark Johnson
 Operations Manager

Date 11/18/15

The cover letter is an integral part of this analytical report

January 4, 2016

CH2M HILL
ATTN: Daniel Jablonski
5742 Costello Ave.
Van Nuys, CA 91401



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA013332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: SFPP - Norwalk Site
Lab Number: G121104-01

Enclosed are results for sample(s) received 12/11/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Dan Jablonski, Vidal Cortes and Steve Defibaugh on 12/23/15.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

Air Technology Laboratories, Inc.
 18501 Gale Ave # 130
 City of Industry, CA 91748
 Tel: (626) 964-4032
 Joann De La Ossa (JDeLaOssa@airtechlabs.com)

G121104-01

CHAIN OF CUSTODY RECORD

DATE: 12/10/15
 PAGE: 1 OF 1

LABORATORY CLIENT: CH2M HILL: Attn - Dan Jablonski				CLIENT PROJECT NAME/NUMBER: SFPF - Norwalk Site				P.O. NO.:											
ADDRESS: 6 Hutton Centre Dr, Suite 700				PROJECT CONTACT: James Dye				QUOTE NO.:											
CITY: Santa Ana, CA 92707				SAMPLER(S) (SIGNATURE): 				LAB USE ONLY: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>											
TEL: 714-429-2020		FAX:		E-MAIL: Daniel.Jablonski@CH2M.com		REQUESTED ANALYSIS													
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48HR <input type="checkbox"/> 72 HR <input checked="" type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS																			
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): <input type="checkbox"/> RWQCB REPORTING <input type="checkbox"/> ARCHIVE SAMPLES UNTIL / /				TO-15 (VOCs Target Analytes) TO-3 (TBM-g, TBM-d, TPH as hexane) ASTM-D 1946 (O2/Argon, CO2, CH4, N2)															
SPECIAL INSTRUCTIONS: Report: Jablonski, Daniel/LAC - Daniel.Jablonski@CH2M.com, Cortes, Vidal/SCO - Vidal.Cortes@CH2M.com CC: KMEP Steve Defibaugh - Steve_Defibaugh@kindermorgan.com "J" flags required/Use lowest possible detection limit - all methods.																			
LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING				MAT-RIX	NO. OF CONT.									Comments		
			DATE	TIME	INITIAL PRESSURE ("Hg)	FINAL PRESSURE ("Hg)													
	VINP-	Influent Vapor (from header)					Air	1									Batch Certified 1-L SUMMA		
01	VPOST-12-10	Post-Dilution	12/11/15	0805	-30	-5	Air	1	X	X									Individually Certified 1-L SUMMA
	VEFF-	Outlet (stack)					Air	1									Individually Certified 1-L SUMMA		
	VEFF-	-D Outlet (stack) Duplicate					Air	1									TAL includes historical VOCs and remaining ATLI List per subcontract.		
Relinquished by: (Signature)				Received by: (Signature) FED EX				Date: 12/10/15		Time: 1530									
Relinquished by: (Signature) FED EX				Received by: (Signature)				Date: 12/11/15		Time: 1112									
Relinquished by: (Signature)				Received by: (Signature)				Date:		Time:									

Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 12/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	G121104-01																				
Client Sample I.D.:	VPOST-12-10																				
Date/Time Sampled:	12/10/15 8:05																				
Date/Time Analyzed:	12/22/15 15:30																				
QC Batch No.:	151222MS2A1																				
Analyst Initials:	DT																				
Dilution Factor:	120																				
ANALYTE	Result ppmv	RL ppmv	MDL ppmv																		
Dichlorodifluoromethane (12)	ND	0.12	0.018																		
Chloromethane	ND	0.23	0.026																		
1,2-CI-1,1,2,2-F ethane (114)	ND	0.12	0.023																		
Vinyl Chloride	ND	0.12	0.019																		
Bromomethane	0.090 J	0.12	0.034																		
Chloroethane	ND	0.12	0.098																		
Trichlorofluoromethane (11)	ND	0.12	0.025																		
1,1-Dichloroethene	ND	0.12	0.026																		
Carbon Disulfide	ND	0.58	0.028																		
1,1,2-CI 1,2,2-F ethane (113)	ND	0.12	0.031																		
Acetone	ND	0.58	0.034																		
Methylene Chloride	ND	0.12	0.033																		
t-1,2-Dichloroethene	ND	0.12	0.035																		
1,1-Dichloroethane	ND	0.12	0.016																		
c-1,2-Dichloroethene	ND	0.12	0.023																		
2-Butanone	ND	0.12	0.072																		
t-Butyl Methyl Ether (MTBE)	ND	0.12	0.026																		
Chloroform	ND	0.12	0.016																		
1,1,1-Trichloroethane	ND	0.12	0.012																		
Carbon Tetrachloride	ND	0.12	0.020																		
Benzene	6.4	0.12	0.011																		
1,2-Dichloroethane	ND	0.12	0.0087																		
Trichloroethene	ND	0.12	0.016																		
1,2-Dichloropropane	ND	0.12	0.021																		
Bromodichloromethane	ND	0.12	0.0070																		
c-1,3-Dichloropropene	ND	0.12	0.014																		
4-Methyl-2-Pentanone	ND	0.12	0.0079																		
Toluene	10	0.12	0.0093																		
t-1,3-Dichloropropene	ND	0.12	0.012																		
1,1,2-Trichloroethane	ND	0.12	0.019																		
1,3-Dichloropropane	ND	0.12	0.0058																		
Tetrachloroethene	ND	0.12	0.014																		
2-Hexanone	ND	0.12	0.024																		
Dibromochloromethane	ND	0.12	0.021																		
1,2-Dibromoethane	ND	0.12	0.011																		
Chlorobenzene	ND	0.12	0.0091																		
Ethylbenzene	1.2	0.12	0.0067																		
p,&m-Xylene	5.6	0.12	0.013																		
o-Xylene	2.0	0.12	0.014																		



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 12/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	G121104-01																		
Client Sample I.D.:	VPOST-12-10																		
Date/Time Sampled:	12/10/15 8:05																		
Date/Time Analyzed:	12/22/15 15:30																		
QC Batch No.:	151222MS2A1																		
Analyst Initials:	DT																		
Dilution Factor:	120																		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv																
Styrene	0.090 J	0.12	0.015																
Bromoform	ND	0.12	0.0065																
Isopropyl benzene	0.053 J	0.12	0.012																
1,1,2,2-Tetrachloroethane	ND	0.23	0.0071																
Benzyl Chloride	ND	0.12	0.021																
1,2,3-Trichloropropane	ND	0.12	0.031																
n-Propyl Benzene	0.092 J	0.12	0.0068																
4-Ethyl Toluene	0.64	0.12	0.0074																
1,3,5-Trimethylbenzene	0.21 J	0.23	0.020																
4-Chlorotoluene	ND	0.12	0.014																
tert-Butylbenzene	0.034 J	0.12	0.011																
1,2,4-Trimethylbenzene	0.33	0.23	0.013																
sec-Butylbenzene	ND	0.12	0.011																
p-Isopropyltoluene	ND	0.12	0.015																
1,3-Dichlorobenzene	ND	0.12	0.014																
1,4-Dichlorobenzene	ND	0.12	0.017																
n-Butylbenzene	ND	0.12	0.0085																
1,2-Dichlorobenzene	ND	0.12	0.015																
1,2,4-Trichlorobenzene	ND	0.23	0.019																
Hexachlorobutadiene	ND	0.12	0.0068																
t-Butanol	ND	0.58	0.022																
n-Hexane	20	0.58	0.016																
Isopropyl ether	ND	0.58	0.013																
t-Butyl ethyl ether	ND	0.58	0.023																
2,2-Dichloropropane	ND	0.58	0.011																
t-Amyl methyl ether	ND	0.58	0.0082																
1,4-Dioxane	ND	0.58	0.020																
Naphthalene	ND	0.58	0.045																
1,2,3-Trichlorobenzene (TIC)	ND	--	--																

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Operations Manager

Date: 12/23/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 12/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK																			
Client Sample I.D.:	-																			
Date/Time Sampled:	-																			
Date/Time Analyzed:	12/22/15 14:00																			
QC Batch No.:	151222MS2A1																			
Analyst Initials:	DT																			
Dilution Factor:	0.20																			
ANALYTE	Result ppmv	RL ppmv	MDL ppmv																	
Dichlorodifluoromethane (12)	ND	0.00020	0.000031																	
Chloromethane	ND	0.00040	0.000044																	
1,2-CI-1,1,2,2-F ethane (114)	ND	0.00020	0.000040																	
Vinyl Chloride	ND	0.00020	0.000032																	
Bromomethane	0.00015 J	0.00020	0.000059																	
Chloroethane	ND	0.00020	0.00017																	
Trichlorofluoromethane (11)	ND	0.00020	0.000043																	
1,1-Dichloroethene	ND	0.00020	0.000045																	
Carbon Disulfide	ND	0.0010	0.000048																	
1,1,2-CI 1,2,2-F ethane (113)	ND	0.00020	0.000054																	
Acetone	0.00035 J	0.0010	0.000058																	
Methylene Chloride	ND	0.00020	0.000057																	
t-1,2-Dichloroethene	ND	0.00020	0.000060																	
1,1-Dichloroethane	ND	0.00020	0.000027																	
c-1,2-Dichloroethene	ND	0.00020	0.000039																	
2-Butanone	ND	0.00020	0.00012																	
t-Butyl Methyl Ether (MTBE)	ND	0.00020	0.000045																	
Chloroform	ND	0.00020	0.000028																	
1,1,1-Trichloroethane	ND	0.00020	0.000020																	
Carbon Tetrachloride	ND	0.00020	0.000035																	
Benzene	ND	0.00020	0.000019																	
1,2-Dichloroethane	ND	0.00020	0.000015																	
Trichloroethene	ND	0.00020	0.000028																	
1,2-Dichloropropane	ND	0.00020	0.000036																	
Bromodichloromethane	ND	0.00020	0.000012																	
c-1,3-Dichloropropene	ND	0.00020	0.000024																	
4-Methyl-2-Pentanone	ND	0.00020	0.000013																	
Toluene	ND	0.00020	0.000016																	
t-1,3-Dichloropropene	ND	0.00020	0.000021																	
1,1,2-Trichloroethane	ND	0.00020	0.000032																	
1,3-Dichloropropane	ND	0.00020	0.0000099																	
Tetrachloroethene	ND	0.00020	0.000024																	
2-Hexanone	ND	0.00020	0.000041																	
Dibromochloromethane	ND	0.00020	0.000036																	
1,2-Dibromoethane	ND	0.00020	0.000018																	
Chlorobenzene	ND	0.00020	0.000016																	
Ethylbenzene	ND	0.00020	0.000011																	
p,&m-Xylene	ND	0.00020	0.000023																	
o-Xylene	ND	0.00020	0.000024																	



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 12/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK																	
Client Sample I.D.:	-																	
Date/Time Sampled:	-																	
Date/Time Analyzed:	12/22/15 14:00																	
QC Batch No.:	151222MS2A1																	
Analyst Initials:	DT																	
Dilution Factor:	0.20																	
ANALYTE	Result ppmv	RL ppmv	MDL ppmv															
Styrene	ND	0.00020	0.000026															
Bromoform	ND	0.00020	0.000011															
Isopropyl benzene	ND	0.00020	0.000021															
1,1,2,2-Tetrachloroethane	ND	0.00040	0.000012															
Benzyl Chloride	ND	0.00020	0.000037															
1,2,3-Trichloropropane	ND	0.00020	0.000054															
n-Propyl Benzene	ND	0.00020	0.000012															
4-Ethyl Toluene	ND	0.00020	0.000013															
1,3,5-Trimethylbenzene	ND	0.00040	0.000035															
4-Chlorotoluene	ND	0.00020	0.000024															
terti-Butylbenzene	ND	0.00020	0.000018															
1,2,4-Trimethylbenzene	ND	0.00040	0.000023															
sec-Butylbenzene	ND	0.00020	0.000019															
p-Isopropyltoluene	ND	0.00020	0.000026															
1,3-Dichlorobenzene	ND	0.00020	0.000024															
1,4-Dichlorobenzene	ND	0.00020	0.000029															
n-Butylbenzene	ND	0.00020	0.000015															
1,2-Dichlorobenzene	ND	0.00020	0.000025															
1,2,4-Trichlorobenzene	ND	0.00040	0.000033															
Hexachlorobutadiene	ND	0.00020	0.000012															
t-Butanol	ND	0.0010	0.000038															
n-Hexane	ND	0.0010	0.000027															
Isopropyl ether	ND	0.0010	0.000022															
t-Butyl ethyl ether	ND	0.0010	0.000040															
2,2-Dichloropropane	ND	0.0010	0.000019															
t-Amyl methyl ether	ND	0.0010	0.000014															
1,4-Dioxane	ND	0.0010	0.000035															
Naphthalene	ND	0.0010	0.000077															
1,2,3-Trichlorobenzene (TIC)	ND	-	-															

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 12/23/15

The cover letter is an integral part of this analytical report



QC Batch #: 151222MS2A1

Matrix: Air

EPA Method TO-14/TO-15											
Lab No:	Method Blank		LCS		LCSD						
Date/Time Analyzed:	12/22/15 14:00		12/22/15 10:35		12/22/15 11:13						
Data File ID:	22DEC006.D		22DEC003.D		22DEC004.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	0.2		1.0		1.0		Limits				
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/ Fail
1,1-Dichloroethene	0.0	10.0	10.9	109	10.6	106	2.9	70	130	30	Pass
Methylene Chloride	0.0	10.0	11.0	110	10.6	106	3.7	70	130	30	Pass
Trichloroethene	0.0	10.0	10.8	108	11.5	115	6.0	70	130	30	Pass
Toluene	0.0	10.0	8.6	86	9.5	95	10.2	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	11.8	118	10.0	100	17.0	70	130	30	Pass

RPD = Relative Percent Difference

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date: 12/22/15

The cover letter is an integral part of this analytical report



Client: CH2M Hill
 Attn: Dan Jablonski
 Project Name: SFPP - Norwalk Site
 Project No.: NA
 Date Received: 12/11/15
 Matrix: Air
 Reporting Units: ppmv

EPA METHOD TO3

Lab No.:	G121104-01												
Client Sample I.D.:	VPOST-12-10												
Date/Time Sampled:	12/10/15 8:05												
Date/Time Analyzed:	12/14/15 11:29												
QC Batch No.:	151214GC11A1												
Analyst Initials:	AS												
Dilution Factor:	9.7												
ANALYTE	Result ppmv	RL ppmv	MDL ppmv										
TVOC as Hexane	580	9.7	1.7										

MDL = Method Detection Limit
 ND= Not Detected (below MDL)
 RL = Reporting Limit
 J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: *Mark Johnson*
 Mark Johnson
 Operations Manager

Date 12/22/15

The cover letter is an integral part of this analytical report



QC Batch No: 151214GC11A1

Matrix: Air

Reporting Units: ppmv

EPA METHOD TO3			
LABORATORY CONTROL SAMPLE SUMMARY			

Lab No.:	METHOD BLANK			LCS		LCSD					
Date Analyzed:	12/14/15 10:42			12/14/15 9:43		12/14/15 10:05					
Analyst Initials:	AS			AS		AS					
Dilution Factor:	1.0			1.0		1.0					
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	% Rec.	Result ppmv	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
TVOC as Hexane	ND	1.0	0.18	4.30	86	4.33	87	0.7	70	130	25

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit


J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: _____



 Mark Johnson
 Operations Manager

Date _____



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October 27, 2015

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

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

TEL:

FAX:

Workorder No.: N017165

RE: SFPP - Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on October 09, 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

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"Serving Clients with Passion and Professionalism"

CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N017165

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.

Analytical Comments for EPA 8015B GRO:

Matrix Spike (MS) N017165-001AMS is outside recovery criteria since the analyte concentration in the sample is disproportionate to the spike level. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8260B:

Laboratory Control Sample (LCS) recovery biased high for Acetone and 2-Butanone. NELAC standard allows for three analytes in marginal exceedence based on 51-70 analytes.



CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N017165
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N017165-001A	INF-10-08	Wastewater	10/8/2015 9:45:00 AM	10/9/2015	10/27/2015
N017165-001B	INF-10-08	Wastewater	10/8/2015 9:45:00 AM	10/9/2015	10/27/2015



ASSET Laboratories

ANALYTICAL RESULTS

Print Date: 27-Oct-15

CLIENT: CH2MHill
Lab Order: N017165
Project: SFPP - Norwalk Site
Lab ID: N017165-001

Client Sample ID: INF-10-08
Collection Date: 10/8/2015 9:45:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151010B	QC Batch: P15VW186	PrepDate:	Analyst: QBM			
1,1,1,2-Tetrachloroethane	ND	0.13	2.0	ug/L	2	10/11/2015 06:07 AM
1,1,1-Trichloroethane	ND	0.14	2.0	ug/L	2	10/11/2015 06:07 AM
1,1,2,2-Tetrachloroethane	ND	0.062	2.0	ug/L	2	10/11/2015 06:07 AM
1,1,2-Trichloroethane	ND	0.12	2.0	ug/L	2	10/11/2015 06:07 AM
1,1-Dichloroethane	ND	0.044	1.0	ug/L	2	10/11/2015 06:07 AM
1,1-Dichloroethene	ND	0.17	2.0	ug/L	2	10/11/2015 06:07 AM
1,1-Dichloropropene	ND	0.088	2.0	ug/L	2	10/11/2015 06:07 AM
1,2,3-Trichlorobenzene	ND	0.11	2.0	ug/L	2	10/11/2015 06:07 AM
1,2,3-Trichloropropane	ND	0.12	2.0	ug/L	2	10/11/2015 06:07 AM
1,2,4-Trichlorobenzene	ND	0.12	2.0	ug/L	2	10/11/2015 06:07 AM
1,2,4-Trimethylbenzene	2000	4.2	100	ug/L	100	10/11/2015 05:15 AM
1,2-Dibromo-3-chloropropane	ND	0.094	4.0	ug/L	2	10/11/2015 06:07 AM
1,2-Dibromoethane	ND	0.11	2.0	ug/L	2	10/11/2015 06:07 AM
1,2-Dichlorobenzene	ND	0.080	2.0	ug/L	2	10/11/2015 06:07 AM
1,2-Dichloroethane	ND	0.13	1.0	ug/L	2	10/11/2015 06:07 AM
1,2-Dichloropropane	ND	0.12	2.0	ug/L	2	10/11/2015 06:07 AM
1,3,5-Trimethylbenzene	500	0.15	10	ug/L	10	10/11/2015 05:41 AM
1,3-Dichlorobenzene	ND	0.11	2.0	ug/L	2	10/11/2015 06:07 AM
1,3-Dichloropropane	0.14	0.080	2.0	J ug/L	2	10/11/2015 06:07 AM
1,4-Dichlorobenzene	ND	0.060	2.0	ug/L	2	10/11/2015 06:07 AM
2,2-Dichloropropane	ND	0.052	2.0	ug/L	2	10/11/2015 06:07 AM
2-Butanone	ND	0.97	20	ug/L	2	10/11/2015 06:07 AM
2-Chlorotoluene	ND	0.080	2.0	ug/L	2	10/11/2015 06:07 AM
4-Chlorotoluene	ND	0.072	2.0	ug/L	2	10/11/2015 06:07 AM
4-Isopropyltoluene	7.5	0.044	2.0	ug/L	2	10/11/2015 06:07 AM
4-Methyl-2-pentanone	ND	0.34	20	ug/L	2	10/11/2015 06:07 AM
Acetone	31	2.1	20	ug/L	2	10/11/2015 06:07 AM
Benzene	5700	3.6	100	ug/L	100	10/11/2015 05:15 AM
Bromobenzene	ND	0.086	2.0	ug/L	2	10/11/2015 06:07 AM
Bromochloromethane	ND	0.44	2.0	ug/L	2	10/11/2015 06:07 AM
Bromodichloromethane	ND	0.062	2.0	ug/L	2	10/11/2015 06:07 AM
Bromoform	ND	0.65	2.0	ug/L	2	10/11/2015 06:07 AM
Bromomethane	ND	0.65	2.0	ug/L	2	10/11/2015 06:07 AM
Carbon disulfide	ND	0.050	2.0	ug/L	2	10/11/2015 06:07 AM
Carbon tetrachloride	ND	0.11	1.0	ug/L	2	10/11/2015 06:07 AM
Chlorobenzene	ND	0.072	2.0	ug/L	2	10/11/2015 06:07 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



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ASSET Laboratories

ANALYTICAL RESULTS

Print Date: 27-Oct-15

CLIENT: CH2MHill
Lab Order: N017165
Project: SFPP - Norwalk Site
Lab ID: N017165-001

Client Sample ID: INF-10-08
Collection Date: 10/8/2015 9:45:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151010B	QC Batch: P15VW186	PrepDate:	Analyst: QBM			
Chloroethane	ND	0.20	2.0	ug/L	2	10/11/2015 06:07 AM
Chloroform	ND	0.072	2.0	ug/L	2	10/11/2015 06:07 AM
Chloromethane	ND	0.23	2.0	ug/L	2	10/11/2015 06:07 AM
cis-1,2-Dichloroethene	ND	0.10	2.0	ug/L	2	10/11/2015 06:07 AM
cis-1,3-Dichloropropene	ND	0.088	2.0	ug/L	2	10/11/2015 06:07 AM
Di-isopropyl ether	16	0.034	2.0	ug/L	2	10/11/2015 06:07 AM
Dibromochloromethane	ND	0.14	2.0	ug/L	2	10/11/2015 06:07 AM
Dibromomethane	ND	0.34	2.0	ug/L	2	10/11/2015 06:07 AM
Dichlorodifluoromethane	ND	0.14	2.0	ug/L	2	10/11/2015 06:07 AM
Ethyl tert-butyl ether	ND	0.078	2.0	ug/L	2	10/11/2015 06:07 AM
Ethylbenzene	1400	3.6	100	ug/L	100	10/11/2015 05:15 AM
Freon-113	ND	0.15	2.0	ug/L	2	10/11/2015 06:07 AM
Hexachlorobutadiene	ND	0.21	2.0	ug/L	2	10/11/2015 06:07 AM
Isopropylbenzene	64	0.068	2.0	ug/L	2	10/11/2015 06:07 AM
m,p-Xylene	8100	2.4	100	ug/L	100	10/11/2015 05:15 AM
Methylene chloride	ND	0.56	4.0	ug/L	2	10/11/2015 06:07 AM
MTBE	680	0.62	10	ug/L	10	10/11/2015 05:41 AM
n-Butylbenzene	17	0.062	2.0	ug/L	2	10/11/2015 06:07 AM
n-Propylbenzene	190	0.036	2.0	ug/L	2	10/11/2015 06:07 AM
Naphthalene	700	0.48	10	ug/L	10	10/11/2015 05:41 AM
o-Xylene	3400	4.2	100	ug/L	100	10/11/2015 05:15 AM
sec-Butylbenzene	11	0.050	2.0	ug/L	2	10/11/2015 06:07 AM
Styrene	3.0	0.070	2.0	ug/L	2	10/11/2015 06:07 AM
Tert-amyl methyl ether	6.2	0.078	2.0	ug/L	2	10/11/2015 06:07 AM
Tert-Butanol	ND	0.60	10	ug/L	2	10/11/2015 06:07 AM
tert-Butylbenzene	0.44	0.060	2.0	J ug/L	2	10/11/2015 06:07 AM
Tetrachloroethene	ND	0.33	2.0	ug/L	2	10/11/2015 06:07 AM
Toluene	11000	4.2	200	ug/L	100	10/11/2015 05:15 AM
trans-1,2-Dichloroethene	ND	0.14	2.0	ug/L	2	10/11/2015 06:07 AM
trans-1,3-Dichloropropene	ND	0.078	2.0	ug/L	2	10/11/2015 06:07 AM
Trichloroethene	ND	0.25	2.0	ug/L	2	10/11/2015 06:07 AM
Trichlorofluoromethane	ND	0.062	2.0	ug/L	2	10/11/2015 06:07 AM
Vinyl chloride	ND	0.19	1.0	ug/L	2	10/11/2015 06:07 AM
Xylenes, Total	11000	150	200	ug/L	100	10/11/2015 05:15 AM
Surr: 1,2-Dichloroethane-d4	109	0	72-119	%REC	10	10/11/2015 05:41 AM
Surr: 1,2-Dichloroethane-d4	107	0	72-119	%REC	100	10/11/2015 05:15 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



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ANALYTICAL RESULTS

Print Date: 27-Oct-15

CLIENT: CH2MHill
Lab Order: N017165
Project: SFPP - Norwalk Site
Lab ID: N017165-001

Client Sample ID: INF-10-08
Collection Date: 10/8/2015 9:45:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151010B	QC Batch: P15VW186	PrepDate:	Analyst: QBM
Surr: 1,2-Dichloroethane-d4	106 0	72-119 %REC	2 10/11/2015 06:07 AM
Surr: 4-Bromofluorobenzene	101 0	76-119 %REC	2 10/11/2015 06:07 AM
Surr: 4-Bromofluorobenzene	101 0	76-119 %REC	100 10/11/2015 05:15 AM
Surr: 4-Bromofluorobenzene	104 0	76-119 %REC	10 10/11/2015 05:41 AM
Surr: Dibromofluoromethane	100 0	85-115 %REC	2 10/11/2015 06:07 AM
Surr: Dibromofluoromethane	107 0	85-115 %REC	100 10/11/2015 05:15 AM
Surr: Dibromofluoromethane	105 0	85-115 %REC	10 10/11/2015 05:41 AM
Surr: Toluene-d8	103 0	81-120 %REC	100 10/11/2015 05:15 AM
Surr: Toluene-d8	108 0	81-120 %REC	10 10/11/2015 05:41 AM
Surr: Toluene-d8	106 0	81-120 %REC	2 10/11/2015 06:07 AM

TPH EXTRACTABLE BY GC/FID

EPA 3510C

EPA 8015B

RunID: GC1_151015B	QC Batch: 52715	PrepDate: 10/15/2015	Analyst: MDM
TPH-Diesel (C13-C22)	55000 1600	2600 ug/L	100 10/16/2015 11:41 AM
TPH-Oil (C23-C36)	1800 14	26 ug/L	1 10/15/2015 07:22 PM
Surr: Octacosane	138 0	26-152 %REC	1 10/15/2015 07:22 PM
Surr: p-Terphenyl	93.1 0	57-132 %REC	1 10/15/2015 07:22 PM

GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B

RunID: GC4_151012A	QC Batch: E15VW063	PrepDate:	Analyst: QBM
TPH-Gasoline (C4-C12)	51000 320	1000 ug/L	20 10/12/2015 12:33 PM
Surr: Chlorobenzene - d5	77.7 0	74-138 %REC	20 10/12/2015 12:33 PM

TOTAL TPH

EPA 8015B

RunID: GC1_151015B	QC Batch: R103593	PrepDate:	Analyst: MDM
Total TPH	107800 16	50 ug/L	1 10/15/2015

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



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CLIENT: CH2MHill
 Work Order: N017165
 Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_FP_SFPP

Sample ID: MB-52715	SampType: MBLK	TestCode: 8015_W_FP_	Units: ug/L	Prep Date: 10/15/2015	RunNo: 103593						
Client ID: PBW	Batch ID: 52715	TestNo: EPA 8015B EPA 3510C		Analysis Date: 10/15/2015	SeqNo: 2108843						
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)	17.546	25									J
Surr: Octacosane	100.412		80.00		126	26	152				
Surr: p-Terphenyl	87.505		80.00		109	57	132				

Qualifiers:

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



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Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_SFPPTOT

Sample ID: MB_103593	SampType: MBLK	TestCode: 8015_W_SFP	Units: ug/L	Prep Date:	RunNo: 103593						
Client ID: PBW	Batch ID: R103593	TestNo: EPA 8015B		Analysis Date: 10/15/2015	SeqNo: 2108665						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total TPH	ND	50									

Qualifiers:

- | | | |
|--|--|--|
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Work Order: N017165
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID: E151009LCS	SampType: LCS	TestCode: 8015GAS_WS	Units: ug/L	Prep Date:	RunNo: 103511						
Client ID: LCSW	Batch ID: E15VW062	TestNo: EPA 8015B		Analysis Date: 10/9/2015	SeqNo: 2103597						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	953.000	50	1000	0	95.3	67	136				
Surr: Chlorobenzene - d5	51588.000		50000		103	74	138				

Sample ID: E151009MB1	SampType: MBLK	TestCode: 8015GAS_WS	Units: ug/L	Prep Date:	RunNo: 103511						
Client ID: PBW	Batch ID: E15VW062	TestNo: EPA 8015B		Analysis Date: 10/9/2015	SeqNo: 2103598						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	38.000	50									J
Surr: Chlorobenzene - d5	48685.000		50000		97.4	74	138				

Sample ID: N017161-001BMS	SampType: MS	TestCode: 8015GAS_WS	Units: ug/L	Prep Date:	RunNo: 103511						
Client ID: ZZZZZ	Batch ID: E15VW062	TestNo: EPA 8015B		Analysis Date: 10/9/2015	SeqNo: 2103600						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	841.000	50	1000	33.00	80.8	67	136				
Surr: Chlorobenzene - d5	48016.000		50000		96.0	74	138				

Sample ID: N017161-001BMSD	SampType: MSD	TestCode: 8015GAS_WS	Units: ug/L	Prep Date:	RunNo: 103511						
Client ID: ZZZZZ	Batch ID: E15VW062	TestNo: EPA 8015B		Analysis Date: 10/9/2015	SeqNo: 2103601						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	864.000	50	1000	33.00	83.1	67	136	841.0	2.70	30	
Surr: Chlorobenzene - d5	49124.000		50000		98.2	74	138		0	0	

Qualifiers:

- | | | |
|--|--|--|
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CLIENT: CH2MHill
Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID: E151012LCS		SampType: LCS		TestCode: 8015GAS_WS Units: ug/L			Prep Date:		RunNo: 103525		
Client ID: LCSW		Batch ID: E15VW063		TestNo: EPA 8015B			Analysis Date: 10/12/2015		SeqNo: 2103974		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	849.000	50	1000	0	84.9	67	136				
Surr: Chlorobenzene - d5	45301.000		50000		90.6	74	138				

Sample ID: E151012MB1		SampType: MBLK		TestCode: 8015GAS_WS Units: ug/L			Prep Date:		RunNo: 103525		
Client ID: PBW		Batch ID: E15VW063		TestNo: EPA 8015B			Analysis Date: 10/12/2015		SeqNo: 2103975		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	28.000	50									J
Surr: Chlorobenzene - d5	44308.000		50000		88.6	74	138				

Sample ID: N017165-001AMS		SampType: MS		TestCode: 8015GAS_WS Units: ug/L			Prep Date:		RunNo: 103525		
Client ID: ZZZZZ		Batch ID: E15VW063		TestNo: EPA 8015B			Analysis Date: 10/12/2015		SeqNo: 2103977		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	64140.000	1000	20000	51120	65.1	67	136				S
Surr: Chlorobenzene - d5	794420.000		1000000		79.4	74	138				

Qualifiers:

- | | | |
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Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010LCS2	SampType: LCS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: LCSW	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/10/2015	SeqNo: 2104348						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.180	1.0	20.00	0	101	81	129				
1,1,1-Trichloroethane	20.850	1.0	20.00	0	104	67	132				
1,1,2,2-Tetrachloroethane	19.060	1.0	20.00	0	95.3	63	128				
1,1,2-Trichloroethane	20.920	1.0	20.00	0	105	75	125				
1,1-Dichloroethane	18.710	0.50	20.00	0	93.6	69	133				
1,1-Dichloroethene	19.660	1.0	20.00	0	98.3	68	130				
1,1-Dichloropropene	20.430	1.0	20.00	0	102	73	132				
1,2,3-Trichlorobenzene	20.250	1.0	20.00	0	101	67	137				
1,2,3-Trichloropropane	19.420	1.0	20.00	0	97.1	73	124				
1,2,4-Trichlorobenzene	20.230	1.0	20.00	0	101	66	134				
1,2,4-Trimethylbenzene	20.270	1.0	20.00	0	101	74	132				
1,2-Dibromo-3-chloropropane	21.020	2.0	20.00	0	105	50	132				
1,2-Dibromoethane	20.820	1.0	20.00	0	104	80	121				
1,2-Dichlorobenzene	19.390	1.0	20.00	0	97.0	71	122				
1,2-Dichloroethane	20.800	0.50	20.00	0	104	69	132				
1,2-Dichloropropane	20.000	1.0	20.00	0	100	75	125				
1,3,5-Trimethylbenzene	20.590	1.0	20.00	0	103	74	131				
1,3-Dichlorobenzene	19.670	1.0	20.00	0	98.4	75	124				
1,3-Dichloropropane	19.720	1.0	20.00	0	98.6	73	126				
1,4-Dichlorobenzene	19.140	1.0	20.00	0	95.7	74	123				
2,2-Dichloropropane	22.430	1.0	20.00	0	112	69	137				
2-Butanone	303.590	10	200.0	0	152	49	136				S
2-Chlorotoluene	19.700	1.0	20.00	0	98.5	73	126				
4-Chlorotoluene	19.710	1.0	20.00	0	98.6	74	128				
4-Isopropyltoluene	20.270	1.0	20.00	0	101	73	130				
4-Methyl-2-pentanone	224.730	10	200.0	0	112	58	134				
Acetone	401.340	10	200.0	0	201	40	135				S
Benzene	20.780	1.0	20.00	0	104	81	122				
Bromobenzene	19.360	1.0	20.00	0	96.8	76	124				
Bromochloromethane	20.870	1.0	20.00	0	104	65	129				

Qualifiers:

- | | | |
|--|--|--|
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CLIENT: CH2MHill
Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010LCS2	SampType: LCS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529
Client ID: LCSW	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/10/2015	SeqNo: 2104348

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	20.720	1.0	20.00	0	104	76	121				
Bromoform	19.490	1.0	20.00	0	97.5	69	128				
Bromomethane	15.740	1.0	20.00	0	78.7	53	141				
Carbon disulfide	19.430	1.0	20.00	0	97.2	75	125				
Carbon tetrachloride	20.740	0.50	20.00	0	104	66	138				
Chlorobenzene	19.830	1.0	20.00	0	99.2	81	122				
Chloroethane	23.190	1.0	20.00	0	116	58	133				
Chloroform	19.740	1.0	20.00	0	98.7	69	128				
Chloromethane	17.840	1.0	20.00	0	89.2	56	131				
cis-1,2-Dichloroethene	19.770	1.0	20.00	0	98.8	72	126				
cis-1,3-Dichloropropene	21.510	1.0	20.00	0	108	69	131				
Di-isopropyl ether	20.770	1.0	20.00	0	104	70	130				
Dibromochloromethane	20.070	1.0	20.00	0	100	66	133				
Dibromomethane	21.750	1.0	20.00	0	109	76	125				
Dichlorodifluoromethane	22.020	1.0	20.00	0	110	53	153				
Ethyl tert-butyl ether	21.750	1.0	20.00	0	109	70	130				
Ethylbenzene	19.760	1.0	20.00	0	98.8	73	127				
Freon-113	20.310	1.0	20.00	0	102	75	125				
Hexachlorobutadiene	19.760	1.0	20.00	0	98.8	67	131				
Isopropylbenzene	19.850	1.0	20.00	0	99.2	75	127				
m,p-Xylene	40.340	1.0	40.00	0	101	76	128				
Methylene chloride	19.580	2.0	20.00	0	97.9	63	137				
MTBE	21.340	1.0	20.00	0	107	65	123				
n-Butylbenzene	20.220	1.0	20.00	0	101	69	137				
n-Propylbenzene	19.930	1.0	20.00	0	99.7	72	129				
Naphthalene	20.990	1.0	20.00	0	105	54	138				
o-Xylene	20.610	1.0	20.00	0	103	80	121				
sec-Butylbenzene	20.200	1.0	20.00	0	101	72	127				
Styrene	20.980	1.0	20.00	0	105	65	134				
Tert-amyl methyl ether	21.350	1.0	20.00	0	107	70	130				

Qualifiers:

- | | | |
|--|--|--|
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010LCS2	SampType: LCS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: LCSSW	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/10/2015	SeqNo: 2104348						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-Butanol	112.310	5.0	100.0	0	112	70	130				
tert-Butylbenzene	19.690	1.0	20.00	0	98.4	70	129				
Tetrachloroethene	19.770	1.0	20.00	0	98.8	66	128				
Toluene	21.080	2.0	20.00	0	105	77	122				
trans-1,2-Dichloroethene	21.830	1.0	20.00	0	109	63	137				
trans-1,3-Dichloropropene	21.510	1.0	20.00	0	108	59	135				
Trichloroethene	21.730	1.0	20.00	0	109	70	127				
Trichlorofluoromethane	20.050	1.0	20.00	0	100	57	129				
Vinyl chloride	21.100	0.50	20.00	0	106	50	134				
Xylenes, Total	60.950	2.0	60.00	0	102	75	125				
Surr: 1,2-Dichloroethane-d4	26.740		25.00		107	72	119				
Surr: 4-Bromofluorobenzene	26.270		25.00		105	76	119				
Surr: Dibromofluoromethane	26.140		25.00		105	85	115				
Surr: Toluene-d8	26.280		25.00		105	81	120				

Sample ID: P151010LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: LCSS02	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/11/2015	SeqNo: 2104349						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	19.710	1.0	20.00	0	98.6	81	129	20.18	2.36	20	
1,1,1-Trichloroethane	20.540	1.0	20.00	0	103	67	132	20.85	1.50	20	
1,1,2,2-Tetrachloroethane	18.710	1.0	20.00	0	93.6	63	128	19.06	1.85	20	
1,1,2-Trichloroethane	20.850	1.0	20.00	0	104	75	125	20.92	0.335	20	
1,1-Dichloroethane	18.270	0.50	20.00	0	91.4	69	133	18.71	2.38	20	
1,1-Dichloroethene	19.240	1.0	20.00	0	96.2	68	130	19.66	2.16	20	
1,1-Dichloropropene	20.520	1.0	20.00	0	103	73	132	20.43	0.440	20	
1,2,3-Trichlorobenzene	20.120	1.0	20.00	0	101	67	137	20.25	0.644	20	
1,2,3-Trichloropropane	19.230	1.0	20.00	0	96.2	73	124	19.42	0.983	20	
1,2,4-Trichlorobenzene	19.980	1.0	20.00	0	99.9	66	134	20.23	1.24	20	
1,2,4-Trimethylbenzene	19.920	1.0	20.00	0	99.6	74	132	20.27	1.74	20	

Qualifiers:

- | | | |
|--|--|--|
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: LCSS02	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/11/2015	SeqNo: 2104349						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	20.930	2.0	20.00	0	105	50	132	21.02	0.429	20	
1,2-Dibromoethane	21.100	1.0	20.00	0	106	80	121	20.82	1.34	20	
1,2-Dichlorobenzene	19.690	1.0	20.00	0	98.4	71	122	19.39	1.54	20	
1,2-Dichloroethane	21.010	0.50	20.00	0	105	69	132	20.80	1.00	20	
1,2-Dichloropropane	20.070	1.0	20.00	0	100	75	125	20.00	0.349	20	
1,3,5-Trimethylbenzene	20.030	1.0	20.00	0	100	74	131	20.59	2.76	20	
1,3-Dichlorobenzene	19.540	1.0	20.00	0	97.7	75	124	19.67	0.663	20	
1,3-Dichloropropane	19.650	1.0	20.00	0	98.2	73	126	19.72	0.356	20	
1,4-Dichlorobenzene	18.990	1.0	20.00	0	95.0	74	123	19.14	0.787	20	
2,2-Dichloropropane	21.650	1.0	20.00	0	108	69	137	22.43	3.54	20	
2-Butanone	294.630	10	200.0	0	147	49	136	303.6	3.00	20	S
2-Chlorotoluene	19.440	1.0	20.00	0	97.2	73	126	19.70	1.33	20	
4-Chlorotoluene	19.840	1.0	20.00	0	99.2	74	128	19.71	0.657	20	
4-Isopropyltoluene	20.200	1.0	20.00	0	101	73	130	20.27	0.346	20	
4-Methyl-2-pentanone	222.190	10	200.0	0	111	58	134	224.7	1.14	20	
Acetone	385.650	10	200.0	0	193	40	135	401.3	3.99	20	S
Benzene	20.550	1.0	20.00	0	103	81	122	20.78	1.11	20	
Bromobenzene	19.130	1.0	20.00	0	95.7	76	124	19.36	1.20	20	
Bromochloromethane	20.090	1.0	20.00	0	100	65	129	20.87	3.81	20	
Bromodichloromethane	20.350	1.0	20.00	0	102	76	121	20.72	1.80	20	
Bromoform	19.110	1.0	20.00	0	95.6	69	128	19.49	1.97	20	
Bromomethane	15.910	1.0	20.00	0	79.6	53	141	15.74	1.07	20	
Carbon disulfide	19.230	1.0	20.00	0	96.2	75	125	19.43	1.03	20	
Carbon tetrachloride	20.460	0.50	20.00	0	102	66	138	20.74	1.36	20	
Chlorobenzene	19.540	1.0	20.00	0	97.7	81	122	19.83	1.47	20	
Chloroethane	20.770	1.0	20.00	0	104	58	133	23.19	11.0	20	
Chloroform	19.850	1.0	20.00	0	99.2	69	128	19.74	0.556	20	
Chloromethane	17.770	1.0	20.00	0	88.8	56	131	17.84	0.393	20	
cis-1,2-Dichloroethene	19.750	1.0	20.00	0	98.8	72	126	19.77	0.101	20	
cis-1,3-Dichloropropene	21.010	1.0	20.00	0	105	69	131	21.51	2.35	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 |



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NEVADA
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 P: 702.307.2659 F: 702.307.2691

"Serving Clients with Passion and Professionalism"

CLIENT: CH2MHill
Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: LCSS02	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/11/2015	SeqNo: 2104349						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	20.520	1.0	20.00	0	103	70	130	20.77	1.21	20	
Dibromochloromethane	20.290	1.0	20.00	0	101	66	133	20.07	1.09	20	
Dibromomethane	21.780	1.0	20.00	0	109	76	125	21.75	0.138	20	
Dichlorodifluoromethane	20.850	1.0	20.00	0	104	53	153	22.02	5.46	20	
Ethyl tert-butyl ether	21.620	1.0	20.00	0	108	70	130	21.75	0.599	20	
Ethylbenzene	19.480	1.0	20.00	0	97.4	73	127	19.76	1.43	20	
Freon-113	19.360	1.0	20.00	0	96.8	75	125	20.31	4.79	20	
Hexachlorobutadiene	19.120	1.0	20.00	0	95.6	67	131	19.76	3.29	20	
Isopropylbenzene	19.720	1.0	20.00	0	98.6	75	127	19.85	0.657	20	
m,p-Xylene	39.410	1.0	40.00	0	98.5	76	128	40.34	2.33	20	
Methylene chloride	19.320	2.0	20.00	0	96.6	63	137	19.58	1.34	20	
MTBE	21.160	1.0	20.00	0	106	65	123	21.34	0.847	20	
n-Butylbenzene	19.770	1.0	20.00	0	98.8	69	137	20.22	2.25	20	
n-Propylbenzene	19.720	1.0	20.00	0	98.6	72	129	19.93	1.06	20	
Naphthalene	20.970	1.0	20.00	0	105	54	138	20.99	0.0953	20	
o-Xylene	20.230	1.0	20.00	0	101	80	121	20.61	1.86	20	
sec-Butylbenzene	19.900	1.0	20.00	0	99.5	72	127	20.20	1.50	20	
Styrene	20.620	1.0	20.00	0	103	65	134	20.98	1.73	20	
Tert-amyl methyl ether	20.950	1.0	20.00	0	105	70	130	21.35	1.89	20	
Tert-Butanol	116.100	5.0	100.0	0	116	70	130	112.3	3.32	20	
tert-Butylbenzene	19.680	1.0	20.00	0	98.4	70	129	19.69	0.0508	20	
Tetrachloroethene	19.490	1.0	20.00	0	97.5	66	128	19.77	1.43	20	
Toluene	20.720	2.0	20.00	0	104	77	122	21.08	1.72	20	
trans-1,2-Dichloroethene	21.580	1.0	20.00	0	108	63	137	21.83	1.15	20	
trans-1,3-Dichloropropene	21.240	1.0	20.00	0	106	59	135	21.51	1.26	20	
Trichloroethene	21.530	1.0	20.00	0	108	70	127	21.73	0.925	20	
Trichlorofluoromethane	19.640	1.0	20.00	0	98.2	57	129	20.05	2.07	20	
Vinyl chloride	20.790	0.50	20.00	0	104	50	134	21.10	1.48	20	
Xylenes, Total	59.640	2.0	60.00	0	99.4	75	125	60.95	2.17	20	
Surr: 1,2-Dichloroethane-d4	26.830		25.00		107	72	119		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 |



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"Serving Clients with Passion and Professionalism"

CLIENT: CH2MHill
Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: LCSS02	Batch ID: P15VW186	TestNo: EPA 8260B	Analysis Date: 10/11/2015	SeqNo: 2104349							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25.450		25.00		102	76	119		0		
Surr: Dibromofluoromethane	25.940		25.00		104	85	115		0		
Surr: Toluene-d8	26.320		25.00		105	81	120		0		

Sample ID: P151010MB6	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529						
Client ID: PBW	Batch ID: P15VW186	TestNo: EPA 8260B	Analysis Date: 10/11/2015	SeqNo: 2104350							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	10									

Qualifiers:

- | | | |
|--|--|--|
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CLIENT: CH2MHill
Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010MB6	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529
Client ID: PBW	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/11/2015	SeqNo: 2104350

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	1.720	10									J
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	0.290	1.0									J
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl tert-butyl ether	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	0.040	1.0									J
Methylene chloride	1.250	2.0									J

Qualifiers:

- | | | |
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Work Order: N017165
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151010MB6	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 103529
Client ID: PBW	Batch ID: P15VW186	TestNo: EPA 8260B		Analysis Date: 10/11/2015	SeqNo: 2104350

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	ND	1.0									
n-Butylbenzene	ND	1.0									
n-Propylbenzene	ND	1.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									
tert-Butylbenzene	ND	1.0									
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									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	25.950		25.00		104	72	119				
Surr: 4-Bromofluorobenzene	25.210		25.00		101	76	119				
Surr: Dibromofluoromethane	26.570		25.00		106	85	115				
Surr: Toluene-d8	26.010		25.00		104	81	120				

Qualifiers:

- | | | |
|--|--|--|
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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: 10/9/2015 Workorder: N017165
 Rep sample Temp (Deg C): 2.1 IR Gun ID: 1
 Temp Blank: Yes No
 Carrier name: Golden State Overnight
 Last 4 digits of Tracking No.: 2228 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 <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. Custody seals intact, signed, dated on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 5. Sampler's name present in COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 9. Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 10. Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 11. All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Temperature of rep sample or Temp Blank within acceptable limit? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 14. Water - pH acceptable upon receipt?
Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 15. Did the bottle labels indicate correct preservatives used? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 16. Were there Non-Conformance issues at login? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Was Client notified? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Comments

Checklist Completed B for MBC PA 10/12/2015

Reviewed By:  10/14/15

ASSET Laboratories

WORK ORDER Summary

09-Oct-15

WorkOrder: N017165

Client ID: CH2HI03

Project: SFPP - Norwalk Site

QC Level: RTNE

Date Received: 10/9/2015

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
N017165-001A	INF-10-08	10/8/2015 9:45:00 AM	10/16/2015	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			10/16/2015		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N017165-001B			10/16/2015		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			10/16/2015		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			10/16/2015		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N017165-002A	FOLDER		10/16/2015	Folder	Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



800-322-5555 www.gso.com

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

Tracking #: 529552228

CPS

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

COD: \$0.00

Weight: 0 lb(s)

Reference:

C89102A

Delivery Instructions:

HOLD FOR PICK UP

Signature Type: REQUIRED



43398677

Print Date: 10/8/2015 6:00 PM

Package 4 of 4

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.

December 04, 2015

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

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

TEL:
FAX:

Workorder No.: N017743

RE: SFPP - Norwalk

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on November 25, 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

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in
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www.assetlaboratories.com

CLIENT: CH2MHill
Project: SFPP - Norwalk
Lab Order: N017743

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.

Analytical Comments for EPA 8015B_DRO/ORO:

Surrogate p-Terphenyl was outside recovery limit on sample N017743-001 possibly due to matrix interference. The other surrogate Octacosane was recovered within control limits.

Analytical Comments for EPA 8260B:

Dilution was necessary due to high concentration of some target analytes.

Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) recoveries biased high for Chloroethane. Sample result was non-detect (ND) for this analyte therefore reanalysis of the sample was not necessary.



CLIENT: CH2MHill
Project: SFPP - Norwalk
Lab Order: N017743
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N017743-001A	INF-11-24	Wastewater	11/24/2015 9:55:00 AM	11/25/2015	12/4/2015
N017743-001B	INF-11-24	Wastewater	11/24/2015 9:55:00 AM	11/25/2015	12/4/2015



ASSET Laboratories

ANALYTICAL RESULTS

Print Date: 04-Dec-15

CLIENT: CH2MHill
Lab Order: N017743
Project: SFPP - Norwalk
Lab ID: N017743-001

Client Sample ID: INF-11-24
Collection Date: 11/24/2015 9:55:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
----------	--------	-----	-----	------	-------	----	---------------

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151203A	QC Batch: P15VW229	PrepDate	Analyst: QBM			
1,1,1,2-Tetrachloroethane	ND	0.33	5.0	ug/L	5	12/3/2015 01:40 PM
1,1,1-Trichloroethane	ND	0.34	5.0	ug/L	5	12/3/2015 01:40 PM
1,1,2,2-Tetrachloroethane	ND	0.16	5.0	ug/L	5	12/3/2015 01:40 PM
1,1,2-Trichloroethane	ND	0.31	5.0	ug/L	5	12/3/2015 01:40 PM
1,1-Dichloroethane	ND	0.11	2.5	ug/L	5	12/3/2015 01:40 PM
1,1-Dichloroethene	ND	0.44	5.0	ug/L	5	12/3/2015 01:40 PM
1,1-Dichloropropene	ND	0.22	5.0	ug/L	5	12/3/2015 01:40 PM
1,2,3-Trichlorobenzene	ND	0.28	5.0	ug/L	5	12/3/2015 01:40 PM
1,2,3-Trichloropropane	ND	0.30	5.0	ug/L	5	12/3/2015 01:40 PM
1,2,4-Trichlorobenzene	ND	0.30	5.0	ug/L	5	12/3/2015 01:40 PM
1,2,4-Trimethylbenzene	1700	0.84	20	ug/L	20	12/3/2015 02:05 PM
1,2-Dibromo-3-chloropropane	ND	0.24	10	ug/L	5	12/3/2015 01:40 PM
1,2-Dibromoethane	ND	0.29	5.0	ug/L	5	12/3/2015 01:40 PM
1,2-Dichlorobenzene	ND	0.20	5.0	ug/L	5	12/3/2015 01:40 PM
1,2-Dichloroethane	ND	0.32	2.5	ug/L	5	12/3/2015 01:40 PM
1,2-Dichloropropane	ND	0.31	5.0	ug/L	5	12/3/2015 01:40 PM
1,3,5-Trimethylbenzene	420	0.075	5.0	ug/L	5	12/3/2015 01:40 PM
1,3-Dichlorobenzene	ND	0.29	5.0	ug/L	5	12/3/2015 01:40 PM
1,3-Dichloropropane	ND	0.20	5.0	ug/L	5	12/3/2015 01:40 PM
1,4-Dichlorobenzene	ND	0.15	5.0	ug/L	5	12/3/2015 01:40 PM
2,2-Dichloropropane	ND	0.13	5.0	ug/L	5	12/3/2015 01:40 PM
2-Butanone	ND	2.4	50	ug/L	5	12/3/2015 01:40 PM
2-Chlorotoluene	ND	0.20	5.0	ug/L	5	12/3/2015 01:40 PM
4-Chlorotoluene	ND	0.18	5.0	ug/L	5	12/3/2015 01:40 PM
4-Isopropyltoluene	33	0.11	5.0	ug/L	5	12/3/2015 01:40 PM
4-Methyl-2-pentanone	ND	0.86	50	ug/L	5	12/3/2015 01:40 PM
Acetone	ND	5.3	50	ug/L	5	12/3/2015 01:40 PM
Benzene	3400	7.2	200	ug/L	200	12/3/2015 02:31 PM
Bromobenzene	ND	0.22	5.0	ug/L	5	12/3/2015 01:40 PM
Bromochloromethane	ND	1.1	5.0	ug/L	5	12/3/2015 01:40 PM
Bromodichloromethane	ND	0.16	5.0	ug/L	5	12/3/2015 01:40 PM
Bromoform	ND	1.6	5.0	ug/L	5	12/3/2015 01:40 PM
Bromomethane	ND	1.6	5.0	ug/L	5	12/3/2015 01:40 PM
Carbon disulfide	0.45	0.12	5.0	J ug/L	5	12/3/2015 01:40 PM
Carbon tetrachloride	ND	0.29	2.5	ug/L	5	12/3/2015 01:40 PM
Chlorobenzene	ND	0.18	5.0	ug/L	5	12/3/2015 01:40 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



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ANALYTICAL RESULTS

Print Date: 04-Dec-15

CLIENT: CH2MHill
Lab Order: N017743
Project: SFPP - Norwalk
Lab ID: N017743-001

Client Sample ID: INF-11-24
Collection Date: 11/24/2015 9:55:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151203A	QC Batch: P15VW229				PrepDate	Analyst: QBM	
Chloroethane	ND	0.50	5.0		ug/L	5	12/3/2015 01:40 PM
Chloroform	ND	0.18	5.0		ug/L	5	12/3/2015 01:40 PM
Chloromethane	ND	0.58	5.0		ug/L	5	12/3/2015 01:40 PM
cis-1,2-Dichloroethene	ND	0.26	5.0		ug/L	5	12/3/2015 01:40 PM
cis-1,3-Dichloropropene	ND	0.22	5.0		ug/L	5	12/3/2015 01:40 PM
Di-isopropyl ether	16	0.085	5.0		ug/L	5	12/3/2015 01:40 PM
Dibromochloromethane	ND	0.36	5.0		ug/L	5	12/3/2015 01:40 PM
Dibromomethane	ND	0.86	5.0		ug/L	5	12/3/2015 01:40 PM
Dichlorodifluoromethane	ND	0.35	5.0		ug/L	5	12/3/2015 01:40 PM
Ethyl tert-butyl ether	ND	0.20	5.0		ug/L	5	12/3/2015 01:40 PM
Ethylbenzene	1100	0.72	20		ug/L	20	12/3/2015 02:05 PM
Freon-113	ND	0.37	5.0		ug/L	5	12/3/2015 01:40 PM
Hexachlorobutadiene	ND	0.53	5.0		ug/L	5	12/3/2015 01:40 PM
Isopropylbenzene	60	0.17	5.0		ug/L	5	12/3/2015 01:40 PM
m,p-Xylene	5600	4.8	200		ug/L	200	12/3/2015 02:31 PM
Methylene chloride	ND	1.4	10		ug/L	5	12/3/2015 01:40 PM
MTBE	ND	0.31	5.0		ug/L	5	12/3/2015 01:40 PM
n-Butylbenzene	20	0.16	5.0		ug/L	5	12/3/2015 01:40 PM
n-Propylbenzene	180	0.090	5.0		ug/L	5	12/3/2015 01:40 PM
Naphthalene	440	0.24	5.0		ug/L	5	12/3/2015 01:40 PM
o-Xylene	2200	8.4	200		ug/L	200	12/3/2015 02:31 PM
sec-Butylbenzene	12	0.12	5.0		ug/L	5	12/3/2015 01:40 PM
Styrene	ND	0.18	5.0		ug/L	5	12/3/2015 01:40 PM
Tert-amyl methyl ether	ND	0.20	5.0		ug/L	5	12/3/2015 01:40 PM
Tert-Butanol	ND	1.5	25		ug/L	5	12/3/2015 01:40 PM
tert-Butylbenzene	ND	0.15	5.0		ug/L	5	12/3/2015 01:40 PM
Tetrachloroethene	ND	0.82	5.0		ug/L	5	12/3/2015 01:40 PM
Toluene	7000	8.4	400		ug/L	200	12/3/2015 02:31 PM
trans-1,2-Dichloroethene	ND	0.35	5.0		ug/L	5	12/3/2015 01:40 PM
trans-1,3-Dichloropropene	ND	0.20	5.0		ug/L	5	12/3/2015 01:40 PM
Trichloroethene	ND	0.62	5.0		ug/L	5	12/3/2015 01:40 PM
Trichlorofluoromethane	ND	0.16	5.0		ug/L	5	12/3/2015 01:40 PM
Vinyl chloride	ND	0.48	2.5		ug/L	5	12/3/2015 01:40 PM
Xylenes, Total	7800	300	400		ug/L	200	12/3/2015 02:31 PM
Surr: 1,2-Dichloroethane-d4	101	0	72-119		%REC	5	12/3/2015 01:40 PM
Surr: 1,2-Dichloroethane-d4	100	0	72-119		%REC	20	12/3/2015 02:05 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



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ANALYTICAL RESULTS

Print Date: 04-Dec-15

CLIENT: CH2MHill
Lab Order: N017743
Project: SFPP - Norwalk
Lab ID: N017743-001

Client Sample ID: INF-11-24
Collection Date: 11/24/2015 9:55:00 AM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151203A	QC Batch: P15VW229			PrepDate	Analyst: QBM		
Surr: 1,2-Dichloroethane-d4	97.6	0	72-119	%REC	200	12/3/2015 02:31 PM	
Surr: 4-Bromofluorobenzene	102	0	76-119	%REC	20	12/3/2015 02:05 PM	
Surr: 4-Bromofluorobenzene	102	0	76-119	%REC	5	12/3/2015 01:40 PM	
Surr: 4-Bromofluorobenzene	98.4	0	76-119	%REC	200	12/3/2015 02:31 PM	
Surr: Dibromofluoromethane	97.3	0	85-115	%REC	200	12/3/2015 02:31 PM	
Surr: Dibromofluoromethane	99.2	0	85-115	%REC	20	12/3/2015 02:05 PM	
Surr: Dibromofluoromethane	97.6	0	85-115	%REC	5	12/3/2015 01:40 PM	
Surr: Toluene-d8	104	0	81-120	%REC	5	12/3/2015 01:40 PM	
Surr: Toluene-d8	101	0	81-120	%REC	200	12/3/2015 02:31 PM	
Surr: Toluene-d8	103	0	81-120	%REC	20	12/3/2015 02:05 PM	

TPH EXTRACTABLE BY GC/FID

EPA 3510C

EPA 8015B

RunID: GC3_151126A	QC Batch: 55177			PrepDate	11/26/2015	Analyst: MDM
TPH-Diesel (C13-C22)	74000	1500	2500	ug/L	100	11/27/2015 02:32 PM
TPH-Oil (C23-C36)	2800	14	25	ug/L	1	11/26/2015 05:14 PM
Surr: Octacosane	111	0	26-152	%REC	1	11/26/2015 05:14 PM
Surr: p-Terphenyl	171	0	57-132	S %REC	1	11/26/2015 05:14 PM

GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B

RunID: GC4_151201A	QC Batch: E15VW076			PrepDate	Analyst: QBM		
TPH-Gasoline (C4-C12)	45000	320	1000	ug/L	20	12/1/2015 03:15 PM	
Surr: Chlorobenzene - d5	81.9	0	74-138	%REC	20	12/1/2015 03:15 PM	

TOTAL TPH

EPA 8015B

RunID: GC3_151126A	QC Batch: R104392			PrepDate	Analyst: MDM		
Total TPH	121800	16	50	ug/L	1	11/26/2015 05:14 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



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_FP_SFPP

Sample ID MB-55177	SampType: MBLK	TestCode: 8015_W_FP_	Units: ug/L	Prep Date: 11/26/2015	RunNo: 104392						
Client ID: PBW	Batch ID: 55177	TestNo: EPA 8015B EPA 3510C		Analysis Date: 11/26/2015	SeqNo: 2150967						
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	74.926		80.00		93.7	26	152				
Surr: p-Terphenyl	71.022		80.00		88.8	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 |



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_SFPPTOT

Sample ID MB-R104392	SampType: MBLK	TestCode: 8015_W_SFP	Units: ug/L	Prep Date:	RunNo: 104392						
Client ID: PBW	Batch ID: R104392	TestNo: EPA 8015B		Analysis Date: 11/26/2015	SeqNo: 2151059						
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 |



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID E151201LCS	SampType: LCS	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104399						
Client ID: LCSW	Batch ID: E15VW076	TestNo: EPA 8015B	Analysis Date: 12/1/2015	SeqNo: 2151072							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	853.000	50	1000	0	85.3	67	136				
Surr: Chlorobenzene - d5	44317.000		50000		88.6	74	138				

Sample ID E151201MB1	SampType: MBLK	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104399						
Client ID: PBW	Batch ID: E15VW076	TestNo: EPA 8015B	Analysis Date: 12/1/2015	SeqNo: 2151073							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	30.000	50									J
Surr: Chlorobenzene - d5	52150.000		50000		104	74	138				

Sample ID N017744-003AMS	SampType: MS	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104399						
Client ID: ZZZZZ	Batch ID: E15VW076	TestNo: EPA 8015B	Analysis Date: 12/1/2015	SeqNo: 2151080							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	927.000	50	1000	28.00	89.9	67	136				
Surr: Chlorobenzene - d5	51175.000		50000		102	74	138				

Sample ID N017744-003AMSD	SampType: MSD	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104399						
Client ID: ZZZZZ	Batch ID: E15VW076	TestNo: EPA 8015B	Analysis Date: 12/1/2015	SeqNo: 2151081							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	902.000	50	1000	28.00	87.4	67	136	927.0	2.73	30	
Surr: Chlorobenzene - d5	50403.000		50000		101	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 |



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151203LCS	LCS	8260_WP_SF	ug/L		104427						
Client ID: LCSW	Batch ID: P15VW229	TestNo: EPA 8260B		Analysis Date: 12/3/2015	SeqNo: 2152855						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	23.430	1.0	20.00	0	117	81	129				
1,1,1-Trichloroethane	20.790	1.0	20.00	0	104	67	132				
1,1,2,2-Tetrachloroethane	23.040	1.0	20.00	0	115	63	128				
1,1,2-Trichloroethane	21.190	1.0	20.00	0	106	75	125				
1,1-Dichloroethane	22.600	0.50	20.00	0	113	69	133				
1,1-Dichloroethene	23.250	1.0	20.00	0	116	68	130				
1,1-Dichloropropene	22.000	1.0	20.00	0	110	73	132				
1,2,3-Trichlorobenzene	20.220	1.0	20.00	0	101	67	137				
1,2,3-Trichloropropane	21.590	1.0	20.00	0	108	73	124				
1,2,4-Trichlorobenzene	20.480	1.0	20.00	0	102	66	134				
1,2,4-Trimethylbenzene	21.790	1.0	20.00	0	109	74	132				
1,2-Dibromo-3-chloropropane	18.930	2.0	20.00	0	94.6	50	132				
1,2-Dibromoethane	21.180	1.0	20.00	0	106	80	121				
1,2-Dichlorobenzene	21.750	1.0	20.00	0	109	71	122				
1,2-Dichloroethane	21.170	0.50	20.00	0	106	69	132				
1,2-Dichloropropane	22.190	1.0	20.00	0	111	75	125				
1,3,5-Trimethylbenzene	21.750	1.0	20.00	0	109	74	131				
1,3-Dichlorobenzene	21.420	1.0	20.00	0	107	75	124				
1,3-Dichloropropane	22.410	1.0	20.00	0	112	73	126				
1,4-Dichlorobenzene	21.370	1.0	20.00	0	107	74	123				
2,2-Dichloropropane	22.030	1.0	20.00	0	110	69	137				
2-Butanone	187.490	10	200.0	0	93.7	49	136				
2-Chlorotoluene	22.570	1.0	20.00	0	113	73	126				
4-Chlorotoluene	22.490	1.0	20.00	0	112	74	128				
4-Isopropyltoluene	21.390	1.0	20.00	0	107	73	130				
4-Methyl-2-pentanone	207.700	10	200.0	0	104	58	134				
Acetone	194.140	10	200.0	0	97.1	40	135				
Benzene	22.380	1.0	20.00	0	112	81	122				
Bromobenzene	21.140	1.0	20.00	0	106	76	124				
Bromochloromethane	20.180	1.0	20.00	0	101	65	129				

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 |



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151203LCS	LCS	8260_WP_SF	ug/L		104427						
Client ID: LCSW	Batch ID: P15VW229	TestNo: EPA 8260B		Analysis Date: 12/3/2015	SeqNo: 2152855						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	23.790	1.0	20.00	0	119	76	121				
Bromoform	20.190	1.0	20.00	0	101	69	128				
Bromomethane	17.370	1.0	20.00	0	86.9	53	141				
Carbon disulfide	23.310	1.0	20.00	0	117	75	125				
Carbon tetrachloride	22.840	0.50	20.00	0	114	66	138				
Chlorobenzene	21.600	1.0	20.00	0	108	81	122				
Chloroethane	29.960	1.0	20.00	0	150	58	133				S
Chloroform	20.900	1.0	20.00	0	104	69	128				
Chloromethane	21.770	1.0	20.00	0	109	56	131				
cis-1,2-Dichloroethene	21.650	1.0	20.00	0	108	72	126				
cis-1,3-Dichloropropene	22.240	1.0	20.00	0	111	69	131				
Di-isopropyl ether	21.850	1.0	20.00	0	109	70	130				
Dibromochloromethane	21.920	1.0	20.00	0	110	66	133				
Dibromomethane	21.850	1.0	20.00	0	109	76	125				
Dichlorodifluoromethane	20.830	1.0	20.00	0	104	53	153				
Ethyl tert-butyl ether	20.880	1.0	20.00	0	104	70	130				
Ethylbenzene	22.080	1.0	20.00	0	110	73	127				
Freon-113	23.230	1.0	20.00	0	116	75	125				
Hexachlorobutadiene	19.490	1.0	20.00	0	97.5	67	131				
Isopropylbenzene	22.370	1.0	20.00	0	112	75	127				
m,p-Xylene	44.190	1.0	40.00	0	110	76	128				
Methylene chloride	20.380	2.0	20.00	0	102	63	137				
MTBE	19.480	1.0	20.00	0	97.4	65	123				
n-Butylbenzene	22.480	1.0	20.00	0	112	69	137				
n-Propylbenzene	22.700	1.0	20.00	0	114	72	129				
Naphthalene	19.940	1.0	20.00	0	99.7	54	138				
o-Xylene	21.760	1.0	20.00	0	109	80	121				
sec-Butylbenzene	21.970	1.0	20.00	0	110	72	127				
Styrene	21.450	1.0	20.00	0	107	65	134				
Tert-amyl methyl ether	20.410	1.0	20.00	0	102	70	130				

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 |



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151203LCS	LCS	8260_WP_SF	ug/L		104427						
Client ID	Batch ID	TestNo									
LCSW	P15VW229	EPA 8260B	Analysis Date: 12/3/2015 SeqNo: 2152855								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-Butanol	75.240	5.0	100.0	0	75.2	70	130				
tert-Butylbenzene	21.340	1.0	20.00	0	107	70	129				
Tetrachloroethene	20.600	1.0	20.00	0	103	66	128				
Toluene	21.830	2.0	20.00	0	109	77	122				
trans-1,2-Dichloroethene	21.590	1.0	20.00	0	108	63	137				
trans-1,3-Dichloropropene	22.720	1.0	20.00	0	114	59	135				
Trichloroethene	21.190	1.0	20.00	0	106	70	127				
Trichlorofluoromethane	24.900	1.0	20.00	0	125	57	129				
Vinyl chloride	22.900	0.50	20.00	0	114	50	134				
Xylenes, Total	65.950	2.0	60.00	0	110	75	125				
Surr: 1,2-Dichloroethane-d4	25.460		25.00		102	72	119				
Surr: 4-Bromofluorobenzene	25.600		25.00		102	76	119				
Surr: Dibromofluoromethane	25.360		25.00		101	85	115				
Surr: Toluene-d8	25.940		25.00		104	81	120				

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151203LCSD	LCSD	8260_WP_SF	ug/L		104427						
Client ID	Batch ID	TestNo									
LCSS02	P15VW229	EPA 8260B	Analysis Date: 12/3/2015 SeqNo: 2152856								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	23.070	1.0	20.00	0	115	81	129	23.43	1.55	20	
1,1,1-Trichloroethane	20.210	1.0	20.00	0	101	67	132	20.79	2.83	20	
1,1,2,2-Tetrachloroethane	21.600	1.0	20.00	0	108	63	128	23.04	6.45	20	
1,1,2-Trichloroethane	20.640	1.0	20.00	0	103	75	125	21.19	2.63	20	
1,1-Dichloroethane	21.780	0.50	20.00	0	109	69	133	22.60	3.70	20	
1,1-Dichloroethene	22.620	1.0	20.00	0	113	68	130	23.25	2.75	20	
1,1-Dichloropropene	21.810	1.0	20.00	0	109	73	132	22.00	0.867	20	
1,2,3-Trichlorobenzene	19.840	1.0	20.00	0	99.2	67	137	20.22	1.90	20	
1,2,3-Trichloropropane	20.660	1.0	20.00	0	103	73	124	21.59	4.40	20	
1,2,4-Trichlorobenzene	19.780	1.0	20.00	0	98.9	66	134	20.48	3.48	20	
1,2,4-Trimethylbenzene	20.870	1.0	20.00	0	104	74	132	21.79	4.31	20	

Qualifiers:

- | | | |
|--|--|--|
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| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out | Calculations are based on raw values |



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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151203LCSD	LCSD	8260_WP_SF	ug/L		104427						
Client ID: LCSS02	Batch ID: P15VW229	TestNo: EPA 8260B		Analysis Date: 12/3/2015	SeqNo: 2152856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	18.550	2.0	20.00	0	92.8	50	132	18.93	2.03	20	
1,2-Dibromoethane	20.880	1.0	20.00	0	104	80	121	21.18	1.43	20	
1,2-Dichlorobenzene	20.800	1.0	20.00	0	104	71	122	21.75	4.47	20	
1,2-Dichloroethane	20.780	0.50	20.00	0	104	69	132	21.17	1.86	20	
1,2-Dichloropropane	21.800	1.0	20.00	0	109	75	125	22.19	1.77	20	
1,3,5-Trimethylbenzene	20.950	1.0	20.00	0	105	74	131	21.75	3.75	20	
1,3-Dichlorobenzene	20.850	1.0	20.00	0	104	75	124	21.42	2.70	20	
1,3-Dichloropropane	21.850	1.0	20.00	0	109	73	126	22.41	2.53	20	
1,4-Dichlorobenzene	20.290	1.0	20.00	0	101	74	123	21.37	5.18	20	
2,2-Dichloropropane	20.560	1.0	20.00	0	103	69	137	22.03	6.90	20	
2-Butanone	180.790	10	200.0	0	90.4	49	136	187.5	3.64	20	
2-Chlorotoluene	21.590	1.0	20.00	0	108	73	126	22.57	4.44	20	
4-Chlorotoluene	21.690	1.0	20.00	0	108	74	128	22.49	3.62	20	
4-Isopropyltoluene	20.650	1.0	20.00	0	103	73	130	21.39	3.52	20	
4-Methyl-2-pentanone	207.310	10	200.0	0	104	58	134	207.7	0.188	20	
Acetone	174.980	10	200.0	0	87.5	40	135	194.1	10.4	20	
Benzene	21.890	1.0	20.00	0	109	81	122	22.38	2.21	20	
Bromobenzene	20.530	1.0	20.00	0	103	76	124	21.14	2.93	20	
Bromochloromethane	19.570	1.0	20.00	0	97.9	65	129	20.18	3.07	20	
Bromodichloromethane	23.030	1.0	20.00	0	115	76	121	23.79	3.25	20	
Bromoform	20.140	1.0	20.00	0	101	69	128	20.19	0.248	20	
Bromomethane	17.020	1.0	20.00	0	85.1	53	141	17.37	2.04	20	
Carbon disulfide	22.670	1.0	20.00	0	113	75	125	23.31	2.78	20	
Carbon tetrachloride	22.770	0.50	20.00	0	114	66	138	22.84	0.307	20	
Chlorobenzene	20.890	1.0	20.00	0	104	81	122	21.60	3.34	20	
Chloroethane	27.430	1.0	20.00	0	137	58	133	29.96	8.82	20	S
Chloroform	20.290	1.0	20.00	0	101	69	128	20.90	2.96	20	
Chloromethane	21.100	1.0	20.00	0	106	56	131	21.77	3.13	20	
cis-1,2-Dichloroethene	20.770	1.0	20.00	0	104	72	126	21.65	4.15	20	
cis-1,3-Dichloropropene	21.850	1.0	20.00	0	109	69	131	22.24	1.77	20	

Qualifiers:

- | | | |
|--|--|--|
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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151203LCSD	LCSD	8260_WP_SF	ug/L		104427						
Client ID	Batch ID	TestNo									
LCSS02	P15VW229	EPA 8260B	Analysis Date: 12/3/2015								
SeqNo: 2152856											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	21.020	1.0	20.00	0	105	70	130	21.85	3.87	20	
Dibromochloromethane	21.010	1.0	20.00	0	105	66	133	21.92	4.24	20	
Dibromomethane	21.490	1.0	20.00	0	107	76	125	21.85	1.66	20	
Dichlorodifluoromethane	20.150	1.0	20.00	0	101	53	153	20.83	3.32	20	
Ethyl tert-butyl ether	20.270	1.0	20.00	0	101	70	130	20.88	2.96	20	
Ethylbenzene	21.240	1.0	20.00	0	106	73	127	22.08	3.88	20	
Freon-113	22.380	1.0	20.00	0	112	75	125	23.23	3.73	20	
Hexachlorobutadiene	18.590	1.0	20.00	0	93.0	67	131	19.49	4.73	20	
Isopropylbenzene	21.570	1.0	20.00	0	108	75	127	22.37	3.64	20	
m,p-Xylene	42.610	1.0	40.00	0	107	76	128	44.19	3.64	20	
Methylene chloride	19.790	2.0	20.00	0	99.0	63	137	20.38	2.94	20	
MTBE	18.760	1.0	20.00	0	93.8	65	123	19.48	3.77	20	
n-Butylbenzene	21.660	1.0	20.00	0	108	69	137	22.48	3.72	20	
n-Propylbenzene	21.820	1.0	20.00	0	109	72	129	22.70	3.95	20	
Naphthalene	19.490	1.0	20.00	0	97.5	54	138	19.94	2.28	20	
o-Xylene	21.100	1.0	20.00	0	106	80	121	21.76	3.08	20	
sec-Butylbenzene	21.460	1.0	20.00	0	107	72	127	21.97	2.35	20	
Styrene	20.840	1.0	20.00	0	104	65	134	21.45	2.88	20	
Tert-amyl methyl ether	19.910	1.0	20.00	0	99.6	70	130	20.41	2.48	20	
Tert-Butanol	76.800	5.0	100.0	0	76.8	70	130	75.24	2.05	20	
tert-Butylbenzene	20.490	1.0	20.00	0	102	70	129	21.34	4.06	20	
Tetrachloroethene	20.160	1.0	20.00	0	101	66	128	20.60	2.16	20	
Toluene	21.210	2.0	20.00	0	106	77	122	21.83	2.88	20	
trans-1,2-Dichloroethene	20.730	1.0	20.00	0	104	63	137	21.59	4.06	20	
trans-1,3-Dichloropropene	21.830	1.0	20.00	0	109	59	135	22.72	4.00	20	
Trichloroethene	20.750	1.0	20.00	0	104	70	127	21.19	2.10	20	
Trichlorofluoromethane	24.110	1.0	20.00	0	121	57	129	24.90	3.22	20	
Vinyl chloride	22.070	0.50	20.00	0	110	50	134	22.90	3.69	20	
Xylenes, Total	63.710	2.0	60.00	0	106	75	125	65.95	3.46	20	
Surr: 1,2-Dichloroethane-d4	25.150		25.00		101	72	119		0		

Qualifiers:

- | | | |
|--|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
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CLIENT: CH2MHill
Work Order: N017743
Project: SFPP - Norwalk

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID P151203LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104427						
Client ID: LCSS02	Batch ID: P15VW229	TestNo: EPA 8260B		Analysis Date: 12/3/2015	SeqNo: 2152856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25.690		25.00		103	76	119		0		
Surr: Dibromofluoromethane	25.360		25.00		101	85	115		0		
Surr: Toluene-d8	26.160		25.00		105	81	120		0		

Sample ID P151203MB3	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104427						
Client ID: PBW	Batch ID: P15VW229	TestNo: EPA 8260B		Analysis Date: 12/3/2015	SeqNo: 2152857						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	10									

Qualifiers:

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|--|--|--|
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151203MB3	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104427						
Client ID: PBW	Batch ID: P15VW229	TestNo: EPA 8260B		Analysis Date: 12/3/2015	SeqNo: 2152857						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	ND	10									
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl tert-butyl ether	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
Methylene chloride	0.330	2.0									J

Qualifiers:

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID: P151203MB3	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104427						
Client ID: PBW	Batch ID: P15VW229	TestNo: EPA 8260B	Analysis Date: 12/3/2015	SeqNo: 2152857							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	ND	1.0									
n-Butylbenzene	ND	1.0									
n-Propylbenzene	ND	1.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									
tert-Butylbenzene	ND	1.0									
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									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	24.840		25.00		99.4	72	119				
Surr: 4-Bromofluorobenzene	24.460		25.00		97.8	76	119				
Surr: Dibromofluoromethane	24.740		25.00		99.0	85	115				
Surr: Toluene-d8	25.880		25.00		104	81	120				

Qualifiers:

- | | | |
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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: 11/25/2015 Workorder: N017743
 Rep sample Temp (Deg C): 5.5 IR Gun ID: 2
 Temp Blank: Yes No
 Carrier name: Golden State Overnight
 Last 4 digits of Tracking No.: 3564 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 <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. Custody seals intact, signed, dated on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 5. Sampler's name present in COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 9. Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 10. Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 11. All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Temperature of rep sample or Temp Blank within acceptable limit? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 14. Water - pH acceptable upon receipt?
Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 15. Did the bottle labels indicate correct preservatives used? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 16. Were there Non-Conformance issues at login?
Was Client notified? | Yes <input type="checkbox"/>
Yes <input type="checkbox"/> | No <input type="checkbox"/>
No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>
NA <input checked="" type="checkbox"/> |

Comments:

Checklist Completed By: YR For: [Signature] 12/02/2015

Reviewed By: [Signature] 12/4/2015

ASSET Laboratories

WORK ORDER Summary

25-Nov-15

WorkOrder: N017743

Client ID: CH2HI03

Project: SFPP - Norwalk

QC Level: RTNE

Date Received: 11/25/2015

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
N017743-001A	INF-11-24	11/24/2015 9:55:00 AM	12/4/2015	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			12/4/2015		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N017743-001B			12/4/2015		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			12/4/2015		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			12/4/2015		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N017743-002A	FOLDER		12/4/2015		Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



800-322-5555 www.gso.com

Ship From

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

Tracking #: 530073564

CPS



Ship To

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

LVS
LAS VEGAS

A

COD: \$0.00

Weight: 0 lb(s)

Reference:

C89102A

Delivery Instructions:

HOLD FOR PICK UP

Signature Type: REQUIRED



45238962

Print Date: 11/24/2015 4:21 PM

Package 2 of 3

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.

December 14, 2015

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

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

TEL:
FAX:

Workorder No.: N017813

RE: SFPP - Norwalk Site

Attention: Dan Jablonski

Enclosed are the results for sample(s) received on December 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

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in
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P: 702.307.2659 F: 702.307.2691

"Serving Clients with Passion and Professionalism"

CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N017813

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.

Analytical Comments for EPA 8260B:

Dilution was necessary due to high concentration of some target analytes.

Laboratory Control Sample (LCS) recovery biased high for Chloromethane and Chloroethane. Sample result was non-detect (ND) for these analytes therefore reanalysis of the sample was not necessary.

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



CLIENT: CH2MHill
Project: SFPP - Norwalk Site
Lab Order: N017813
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N017813-001A	INF-12-03	Wastewater	12/3/2015 1:30:00 PM	12/4/2015	12/14/2015
N017813-001B	INF-12-03	Wastewater	12/3/2015 1:30:00 PM	12/4/2015	12/14/2015



ASSET Laboratories

ANALYTICAL RESULTS

Print Date: 14-Dec-15

CLIENT: CH2MHill
Lab Order: N017813
Project: SFPP - Norwalk Site
Lab ID: N017813-001

Client Sample ID: INF-12-03
Collection Date: 12/3/2015 1:30:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151208A	QC Batch: P15VW235	PrepDate	Analyst: QBM			
1,1,1,2-Tetrachloroethane	ND	0.33	5.0	ug/L	5	12/8/2015 02:34 PM
1,1,1-Trichloroethane	ND	0.34	5.0	ug/L	5	12/8/2015 02:34 PM
1,1,2,2-Tetrachloroethane	ND	0.16	5.0	ug/L	5	12/8/2015 02:34 PM
1,1,2-Trichloroethane	ND	0.31	5.0	ug/L	5	12/8/2015 02:34 PM
1,1-Dichloroethane	ND	0.11	2.5	ug/L	5	12/8/2015 02:34 PM
1,1-Dichloroethene	ND	0.44	5.0	ug/L	5	12/8/2015 02:34 PM
1,1-Dichloropropene	ND	0.22	5.0	ug/L	5	12/8/2015 02:34 PM
1,2,3-Trichlorobenzene	ND	0.28	5.0	ug/L	5	12/8/2015 02:34 PM
1,2,3-Trichloropropane	ND	0.30	5.0	ug/L	5	12/8/2015 02:34 PM
1,2,4-Trichlorobenzene	ND	0.30	5.0	ug/L	5	12/8/2015 02:34 PM
1,2,4-Trimethylbenzene	1700	0.84	20	ug/L	20	12/8/2015 02:59 PM
1,2-Dibromo-3-chloropropane	ND	0.24	10	ug/L	5	12/8/2015 02:34 PM
1,2-Dibromoethane	ND	0.29	5.0	ug/L	5	12/8/2015 02:34 PM
1,2-Dichlorobenzene	ND	0.20	5.0	ug/L	5	12/8/2015 02:34 PM
1,2-Dichloroethane	ND	0.32	2.5	ug/L	5	12/8/2015 02:34 PM
1,2-Dichloropropane	ND	0.31	5.0	ug/L	5	12/8/2015 02:34 PM
1,3,5-Trimethylbenzene	420	0.075	5.0	ug/L	5	12/8/2015 02:34 PM
1,3-Dichlorobenzene	ND	0.29	5.0	ug/L	5	12/8/2015 02:34 PM
1,3-Dichloropropane	ND	0.20	5.0	ug/L	5	12/8/2015 02:34 PM
1,4-Dichlorobenzene	ND	0.15	5.0	ug/L	5	12/8/2015 02:34 PM
2,2-Dichloropropane	ND	0.13	5.0	ug/L	5	12/8/2015 02:34 PM
2-Butanone	ND	2.4	50	ug/L	5	12/8/2015 02:34 PM
2-Chlorotoluene	ND	0.20	5.0	ug/L	5	12/8/2015 02:34 PM
4-Chlorotoluene	ND	0.18	5.0	ug/L	5	12/8/2015 02:34 PM
4-Isopropyltoluene	31	0.11	5.0	ug/L	5	12/8/2015 02:34 PM
4-Methyl-2-pentanone	ND	0.86	50	ug/L	5	12/8/2015 02:34 PM
Acetone	ND	5.3	50	ug/L	5	12/8/2015 02:34 PM
Benzene	4800	7.2	200	ug/L	200	12/8/2015 03:25 PM
Bromobenzene	ND	0.22	5.0	ug/L	5	12/8/2015 02:34 PM
Bromochloromethane	ND	1.1	5.0	ug/L	5	12/8/2015 02:34 PM
Bromodichloromethane	ND	0.16	5.0	ug/L	5	12/8/2015 02:34 PM
Bromoform	ND	1.6	5.0	ug/L	5	12/8/2015 02:34 PM
Bromomethane	ND	1.6	5.0	ug/L	5	12/8/2015 02:34 PM
Carbon disulfide	ND	0.12	5.0	ug/L	5	12/8/2015 02:34 PM
Carbon tetrachloride	ND	0.29	2.5	ug/L	5	12/8/2015 02:34 PM
Chlorobenzene	ND	0.18	5.0	ug/L	5	12/8/2015 02:34 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



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ANALYTICAL RESULTS

Print Date: 14-Dec-15

CLIENT: CH2MHill
Lab Order: N017813
Project: SFPP - Norwalk Site
Lab ID: N017813-001

Client Sample ID: INF-12-03
Collection Date: 12/3/2015 1:30:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151208A	QC Batch: P15VW235	PrepDate			Analyst: QBM	
Chloroethane	ND	0.50	5.0	ug/L	5	12/8/2015 02:34 PM
Chloroform	ND	0.18	5.0	ug/L	5	12/8/2015 02:34 PM
Chloromethane	ND	0.58	5.0	ug/L	5	12/8/2015 02:34 PM
cis-1,2-Dichloroethene	ND	0.26	5.0	ug/L	5	12/8/2015 02:34 PM
cis-1,3-Dichloropropene	ND	0.22	5.0	ug/L	5	12/8/2015 02:34 PM
Di-isopropyl ether	19	0.085	5.0	ug/L	5	12/8/2015 02:34 PM
Dibromochloromethane	ND	0.36	5.0	ug/L	5	12/8/2015 02:34 PM
Dibromomethane	ND	0.86	5.0	ug/L	5	12/8/2015 02:34 PM
Dichlorodifluoromethane	ND	0.35	5.0	ug/L	5	12/8/2015 02:34 PM
Ethyl tert-butyl ether	ND	0.20	5.0	ug/L	5	12/8/2015 02:34 PM
Ethylbenzene	1100	0.72	20	ug/L	20	12/8/2015 02:59 PM
Freon-113	ND	0.37	5.0	ug/L	5	12/8/2015 02:34 PM
Hexachlorobutadiene	ND	0.53	5.0	ug/L	5	12/8/2015 02:34 PM
Isopropylbenzene	55	0.17	5.0	ug/L	5	12/8/2015 02:34 PM
m,p-Xylene	6000	4.8	200	ug/L	200	12/8/2015 03:25 PM
Methylene chloride	ND	1.4	10	ug/L	5	12/8/2015 02:34 PM
MTBE	580	1.2	20	ug/L	20	12/8/2015 02:59 PM
n-Butylbenzene	21	0.16	5.0	ug/L	5	12/8/2015 02:34 PM
n-Propylbenzene	170	0.090	5.0	ug/L	5	12/8/2015 02:34 PM
Naphthalene	450	0.24	5.0	ug/L	5	12/8/2015 02:34 PM
o-Xylene	2400	8.4	200	ug/L	200	12/8/2015 03:25 PM
sec-Butylbenzene	13	0.12	5.0	ug/L	5	12/8/2015 02:34 PM
Styrene	ND	0.18	5.0	ug/L	5	12/8/2015 02:34 PM
Tert-amyl methyl ether	5.9	0.20	5.0	ug/L	5	12/8/2015 02:34 PM
Tert-Butanol	ND	1.5	25	ug/L	5	12/8/2015 02:34 PM
tert-Butylbenzene	ND	0.15	5.0	ug/L	5	12/8/2015 02:34 PM
Tetrachloroethene	0.95	0.82	5.0	J ug/L	5	12/8/2015 02:34 PM
Toluene	7700	8.4	400	ug/L	200	12/8/2015 03:25 PM
trans-1,2-Dichloroethene	ND	0.35	5.0	ug/L	5	12/8/2015 02:34 PM
trans-1,3-Dichloropropene	ND	0.20	5.0	ug/L	5	12/8/2015 02:34 PM
Trichloroethene	ND	0.62	5.0	ug/L	5	12/8/2015 02:34 PM
Trichlorofluoromethane	ND	0.16	5.0	ug/L	5	12/8/2015 02:34 PM
Vinyl chloride	ND	0.48	2.5	ug/L	5	12/8/2015 02:34 PM
Xylenes, Total	8300	300	400	ug/L	200	12/8/2015 03:25 PM
Surr: 1,2-Dichloroethane-d4	115	0	72-119	%REC	5	12/8/2015 02:34 PM
Surr: 1,2-Dichloroethane-d4	111	0	72-119	%REC	20	12/8/2015 02:59 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



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ANALYTICAL RESULTS

Print Date: 14-Dec-15

CLIENT: CH2MHill
Lab Order: N017813
Project: SFPP - Norwalk Site
Lab ID: N017813-001

Client Sample ID: INF-12-03
Collection Date: 12/3/2015 1:30:00 PM
Matrix: WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS5_151208A	QC Batch: P15VW235			PrepDate	Analyst: QBM		
Surr: 1,2-Dichloroethane-d4	109	0	72-119	%REC	200	12/8/2015 03:25 PM	
Surr: 4-Bromofluorobenzene	101	0	76-119	%REC	200	12/8/2015 03:25 PM	
Surr: 4-Bromofluorobenzene	106	0	76-119	%REC	5	12/8/2015 02:34 PM	
Surr: 4-Bromofluorobenzene	105	0	76-119	%REC	20	12/8/2015 02:59 PM	
Surr: Dibromofluoromethane	106	0	85-115	%REC	5	12/8/2015 02:34 PM	
Surr: Dibromofluoromethane	105	0	85-115	%REC	20	12/8/2015 02:59 PM	
Surr: Dibromofluoromethane	104	0	85-115	%REC	200	12/8/2015 03:25 PM	
Surr: Toluene-d8	107	0	81-120	%REC	20	12/8/2015 02:59 PM	
Surr: Toluene-d8	107	0	81-120	%REC	5	12/8/2015 02:34 PM	
Surr: Toluene-d8	105	0	81-120	%REC	200	12/8/2015 03:25 PM	

TPH EXTRACTABLE BY GC/FID

EPA 3510C

EPA 8015B

RunID: GC3_151204A	QC Batch: 55236			PrepDate	12/4/2015	Analyst: MDM
TPH-Diesel (C13-C22)	120000	3200	5300	ug/L	200	12/6/2015 12:03 AM
TPH-Oil (C23-C36)	4000	140	260	ug/L	10	12/4/2015 11:04 PM
Surr: Octacosane	107	0	26-152	%REC	10	12/4/2015 11:04 PM
Surr: p-Terphenyl	128	0	57-132	%REC	10	12/4/2015 11:04 PM

GASOLINE RANGE ORGANICS BY GC/FID

EPA 8015B

RunID: GC4_151207A	QC Batch: E15VW078			PrepDate	Analyst: QBM		
TPH-Gasoline (C4-C12)	40000	320	1000	ug/L	20	12/7/2015 04:15 PM	
Surr: Chlorobenzene - d5	77.6	0	74-138	%REC	20	12/7/2015 04:15 PM	

TOTAL TPH

EPA 8015B

RunID: GC3_151204A	QC Batch: R104459			PrepDate	Analyst: MDM		
Total TPH	164000	16	50	ug/L	1	12/4/2015	

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



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CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_FP_SFPP

Sample ID MB-55236	SampType: MBLK	TestCode: 8015_W_FP_	Units: ug/L	Prep Date: 12/4/2015	RunNo: 104459						
Client ID: PBW	Batch ID: 55236	TestNo: EPA 8015B EPA 3510C		Analysis Date: 12/4/2015	SeqNo: 2154550						
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	73.066		80.00		91.3	26	152				
Surr: p-Terphenyl	67.560		80.00		84.4	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 |



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CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_SFPPTOT

Sample ID MB-R104459	SampType: MBLK	TestCode: 8015_W_SFP	Units: ug/L	Prep Date:	RunNo: 104459						
Client ID: PBW	Batch ID: R104459	TestNo: EPA 8015B		Analysis Date: 12/4/2015	SeqNo: 2160832						
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 |



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CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS_WSFPP

Sample ID E151207LCS	SampType: LCS	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104487						
Client ID: LCSW	Batch ID: E15VW078	TestNo: EPA 8015B		Analysis Date: 12/7/2015	SeqNo: 2155840						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	902.000	50	1000	0	90.2	67	136				
Surr: Chlorobenzene - d5	47699.000		50000		95.4	74	138				

Sample ID E151207MB1	SampType: MBLK	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104487						
Client ID: PBW	Batch ID: E15VW078	TestNo: EPA 8015B		Analysis Date: 12/7/2015	SeqNo: 2155841						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	35.000	50									J
Surr: Chlorobenzene - d5	45002.000		50000		90.0	74	138				

Sample ID N017812-001JMS	SampType: MS	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104487						
Client ID: ZZZZZ	Batch ID: E15VW078	TestNo: EPA 8015B		Analysis Date: 12/7/2015	SeqNo: 2155844						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	850.000	50	1000	27.00	82.3	67	136				
Surr: Chlorobenzene - d5	46675.000		50000		93.4	74	138				

Sample ID N017812-001JMSD	SampType: MSD	TestCode: 8015GAS_W	Units: ug/L	Prep Date:	RunNo: 104487						
Client ID: ZZZZZ	Batch ID: E15VW078	TestNo: EPA 8015B		Analysis Date: 12/7/2015	SeqNo: 2155845						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	817.000	50	1000	27.00	79.0	67	136	850.0	3.96	30	
Surr: Chlorobenzene - d5	45963.000		50000		91.9	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 |



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CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	P151208LCS	SampType: LCS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104516					
Client ID:	LCSW	Batch ID:	P15VW235	TestNo:	EPA 8260B	Analysis Date:	12/8/2015	SeqNo:	2158269		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.400	1.0	20.00	0	102	81	129				
1,1,1-Trichloroethane	19.890	1.0	20.00	0	99.4	67	132				
1,1,2,2-Tetrachloroethane	21.360	1.0	20.00	0	107	63	128				
1,1,2-Trichloroethane	19.840	1.0	20.00	0	99.2	75	125				
1,1-Dichloroethane	22.430	0.50	20.00	0	112	69	133				
1,1-Dichloroethene	22.630	1.0	20.00	0	113	68	130				
1,1-Dichloropropene	21.170	1.0	20.00	0	106	73	132				
1,2,3-Trichlorobenzene	17.330	1.0	20.00	0	86.7	67	137				
1,2,3-Trichloropropane	20.720	1.0	20.00	0	104	73	124				
1,2,4-Trichlorobenzene	17.070	1.0	20.00	0	85.4	66	134				
1,2,4-Trimethylbenzene	19.270	1.0	20.00	0	96.4	74	132				
1,2-Dibromo-3-chloropropane	17.190	2.0	20.00	0	86.0	50	132				
1,2-Dibromoethane	19.430	1.0	20.00	0	97.2	80	121				
1,2-Dichlorobenzene	18.750	1.0	20.00	0	93.8	71	122				
1,2-Dichloroethane	20.120	0.50	20.00	0	101	69	132				
1,2-Dichloropropane	21.270	1.0	20.00	0	106	75	125				
1,3,5-Trimethylbenzene	19.510	1.0	20.00	0	97.6	74	131				
1,3-Dichlorobenzene	18.630	1.0	20.00	0	93.2	75	124				
1,3-Dichloropropane	20.740	1.0	20.00	0	104	73	126				
1,4-Dichlorobenzene	18.580	1.0	20.00	0	92.9	74	123				
2,2-Dichloropropane	20.550	1.0	20.00	0	103	69	137				
2-Butanone	216.750	10	200.0	0	108	49	136				
2-Chlorotoluene	20.480	1.0	20.00	0	102	73	126				
4-Chlorotoluene	20.540	1.0	20.00	0	103	74	128				
4-Isopropyltoluene	18.920	1.0	20.00	0	94.6	73	130				
4-Methyl-2-pentanone	213.110	10	200.0	0	107	58	134				
Acetone	248.970	10	200.0	0	124	40	135				
Benzene	20.990	1.0	20.00	0	105	81	122				
Bromobenzene	18.390	1.0	20.00	0	92.0	76	124				
Bromochloromethane	18.210	1.0	20.00	0	91.1	65	129				

Qualifiers:

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CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151208LCS	LCS	8260_WP_SF	ug/L		104516						
Client ID	Batch ID	TestNo		Analysis Date	SeqNo						
LCSW	P15VW235	EPA 8260B		12/8/2015	2158269						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	22.090	1.0	20.00	0	110	76	121				
Bromoform	18.680	1.0	20.00	0	93.4	69	128				
Bromomethane	18.600	1.0	20.00	0	93.0	53	141				
Carbon disulfide	22.900	1.0	20.00	0	114	75	125				
Carbon tetrachloride	21.490	0.50	20.00	0	107	66	138				
Chlorobenzene	18.880	1.0	20.00	0	94.4	81	122				
Chloroethane	26.780	1.0	20.00	0	134	58	133				S
Chloroform	20.540	1.0	20.00	0	103	69	128				
Chloromethane	26.370	1.0	20.00	0	132	56	131				S
cis-1,2-Dichloroethene	20.120	1.0	20.00	0	101	72	126				
cis-1,3-Dichloropropene	20.570	1.0	20.00	0	103	69	131				
Di-isopropyl ether	21.640	1.0	20.00	0	108	70	130				
Dibromochloromethane	19.940	1.0	20.00	0	99.7	66	133				
Dibromomethane	20.290	1.0	20.00	0	101	76	125				
Dichlorodifluoromethane	20.270	1.0	20.00	0	101	53	153				
Ethyl tert-butyl ether	20.350	1.0	20.00	0	102	70	130				
Ethylbenzene	19.640	1.0	20.00	0	98.2	73	127				
Freon-113	22.610	1.0	20.00	0	113	75	125				
Hexachlorobutadiene	17.340	1.0	20.00	0	86.7	67	131				
Isopropylbenzene	19.790	1.0	20.00	0	99.0	75	127				
m,p-Xylene	39.540	1.0	40.00	0	98.8	76	128				
Methylene chloride	21.070	2.0	20.00	0	105	63	137				
MTBE	18.870	1.0	20.00	0	94.4	65	123				
n-Butylbenzene	20.300	1.0	20.00	0	102	69	137				
n-Propylbenzene	20.400	1.0	20.00	0	102	72	129				
Naphthalene	17.410	1.0	20.00	0	87.1	54	138				
o-Xylene	19.390	1.0	20.00	0	97.0	80	121				
sec-Butylbenzene	19.650	1.0	20.00	0	98.2	72	127				
Styrene	18.990	1.0	20.00	0	95.0	65	134				
Tert-amyl methyl ether	18.790	1.0	20.00	0	94.0	70	130				

Qualifiers:

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Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	P151208LCS	SampType: LCS	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104516					
Client ID:	LCSW	Batch ID:	P15VW235	TestNo:	EPA 8260B	Analysis Date:	12/8/2015	SeqNo:	2158269		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-Butanol	80.550	5.0	100.0	0	80.6	70	130				
tert-Butylbenzene	18.670	1.0	20.00	0	93.4	70	129				
Tetrachloroethene	18.390	1.0	20.00	0	92.0	66	128				
Toluene	19.830	2.0	20.00	0	99.2	77	122				
trans-1,2-Dichloroethene	20.170	1.0	20.00	0	101	63	137				
trans-1,3-Dichloropropene	20.570	1.0	20.00	0	103	59	135				
Trichloroethene	18.680	1.0	20.00	0	93.4	70	127				
Trichlorofluoromethane	23.970	1.0	20.00	0	120	57	129				
Vinyl chloride	22.740	0.50	20.00	0	114	50	134				
Xylenes, Total	58.930	2.0	60.00	0	98.2	75	125				
Surr: 1,2-Dichloroethane-d4	28.640		25.00		115	72	119				
Surr: 4-Bromofluorobenzene	26.090		25.00		104	76	119				
Surr: Dibromofluoromethane	27.010		25.00		108	85	115				
Surr: Toluene-d8	26.500		25.00		106	81	120				

Sample ID	P151208LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104516					
Client ID:	LCSS02	Batch ID:	P15VW235	TestNo:	EPA 8260B	Analysis Date:	12/8/2015	SeqNo:	2158270		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	20.870	1.0	20.00	0	104	81	129	20.40	2.28	20	
1,1,1-Trichloroethane	19.680	1.0	20.00	0	98.4	67	132	19.89	1.06	20	
1,1,2,2-Tetrachloroethane	21.600	1.0	20.00	0	108	63	128	21.36	1.12	20	
1,1,2-Trichloroethane	19.990	1.0	20.00	0	100	75	125	19.84	0.753	20	
1,1-Dichloroethane	21.930	0.50	20.00	0	110	69	133	22.43	2.25	20	
1,1-Dichloroethene	22.650	1.0	20.00	0	113	68	130	22.63	0.0883	20	
1,1-Dichloropropene	20.730	1.0	20.00	0	104	73	132	21.17	2.10	20	
1,2,3-Trichlorobenzene	17.410	1.0	20.00	0	87.1	67	137	17.33	0.461	20	
1,2,3-Trichloropropane	20.940	1.0	20.00	0	105	73	124	20.72	1.06	20	
1,2,4-Trichlorobenzene	17.470	1.0	20.00	0	87.4	66	134	17.07	2.32	20	
1,2,4-Trimethylbenzene	19.300	1.0	20.00	0	96.5	74	132	19.27	0.156	20	

Qualifiers:

- | | | |
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Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151208LCSD	LCSD	8260_WP_SF	ug/L		104516						
Client ID: LCSS02	Batch ID: P15VW235	TestNo: EPA 8260B		Analysis Date: 12/8/2015	SeqNo: 2158270						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	18.180	2.0	20.00	0	90.9	50	132	17.19	5.60	20	
1,2-Dibromoethane	19.550	1.0	20.00	0	97.8	80	121	19.43	0.616	20	
1,2-Dichlorobenzene	18.860	1.0	20.00	0	94.3	71	122	18.75	0.585	20	
1,2-Dichloroethane	20.380	0.50	20.00	0	102	69	132	20.12	1.28	20	
1,2-Dichloropropane	21.260	1.0	20.00	0	106	75	125	21.27	0.0470	20	
1,3,5-Trimethylbenzene	19.480	1.0	20.00	0	97.4	74	131	19.51	0.154	20	
1,3-Dichlorobenzene	18.790	1.0	20.00	0	94.0	75	124	18.63	0.855	20	
1,3-Dichloropropane	20.830	1.0	20.00	0	104	73	126	20.74	0.433	20	
1,4-Dichlorobenzene	18.560	1.0	20.00	0	92.8	74	123	18.58	0.108	20	
2,2-Dichloropropane	19.980	1.0	20.00	0	99.9	69	137	20.55	2.81	20	
2-Butanone	200.980	10	200.0	0	100	49	136	216.8	7.55	20	
2-Chlorotoluene	20.220	1.0	20.00	0	101	73	126	20.48	1.28	20	
4-Chlorotoluene	20.250	1.0	20.00	0	101	74	128	20.54	1.42	20	
4-Isopropyltoluene	18.820	1.0	20.00	0	94.1	73	130	18.92	0.530	20	
4-Methyl-2-pentanone	215.470	10	200.0	0	108	58	134	213.1	1.10	20	
Acetone	203.830	10	200.0	0	102	40	135	249.0	19.9	20	
Benzene	20.760	1.0	20.00	0	104	81	122	20.99	1.10	20	
Bromobenzene	18.400	1.0	20.00	0	92.0	76	124	18.39	0.0544	20	
Bromochloromethane	17.850	1.0	20.00	0	89.2	65	129	18.21	2.00	20	
Bromodichloromethane	22.210	1.0	20.00	0	111	76	121	22.09	0.542	20	
Bromoform	18.690	1.0	20.00	0	93.5	69	128	18.68	0.0535	20	
Bromomethane	18.770	1.0	20.00	0	93.8	53	141	18.60	0.910	20	
Carbon disulfide	22.670	1.0	20.00	0	113	75	125	22.90	1.01	20	
Carbon tetrachloride	21.490	0.50	20.00	0	107	66	138	21.49	0	20	
Chlorobenzene	18.660	1.0	20.00	0	93.3	81	122	18.88	1.17	20	
Chloroethane	26.650	1.0	20.00	0	133	58	133	26.78	0.487	20	S
Chloroform	20.130	1.0	20.00	0	101	69	128	20.54	2.02	20	
Chloromethane	25.540	1.0	20.00	0	128	56	131	26.37	3.20	20	
cis-1,2-Dichloroethene	19.730	1.0	20.00	0	98.6	72	126	20.12	1.96	20	
cis-1,3-Dichloropropene	20.610	1.0	20.00	0	103	69	131	20.57	0.194	20	

Qualifiers:

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CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151208LCSD	LCSD	8260_WP_SF	ug/L		104516						
Client ID	Batch ID	TestNo									
LCSS02	P15VW235	EPA 8260B	Analysis Date: 12/8/2015								
SeqNo: 2158270											
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	21.620	1.0	20.00	0	108	70	130	21.64	0.0925	20	
Dibromochloromethane	19.850	1.0	20.00	0	99.2	66	133	19.94	0.452	20	
Dibromomethane	20.440	1.0	20.00	0	102	76	125	20.29	0.737	20	
Dichlorodifluoromethane	19.950	1.0	20.00	0	99.8	53	153	20.27	1.59	20	
Ethyl tert-butyl ether	20.010	1.0	20.00	0	100	70	130	20.35	1.68	20	
Ethylbenzene	19.520	1.0	20.00	0	97.6	73	127	19.64	0.613	20	
Freon-113	22.200	1.0	20.00	0	111	75	125	22.61	1.83	20	
Hexachlorobutadiene	17.130	1.0	20.00	0	85.7	67	131	17.34	1.22	20	
Isopropylbenzene	19.700	1.0	20.00	0	98.5	75	127	19.79	0.456	20	
m,p-Xylene	38.990	1.0	40.00	0	97.5	76	128	39.54	1.40	20	
Methylene chloride	20.600	2.0	20.00	0	103	63	137	21.07	2.26	20	
MTBE	18.640	1.0	20.00	0	93.2	65	123	18.87	1.23	20	
n-Butylbenzene	20.290	1.0	20.00	0	101	69	137	20.30	0.0493	20	
n-Propylbenzene	20.490	1.0	20.00	0	102	72	129	20.40	0.440	20	
Naphthalene	17.610	1.0	20.00	0	88.0	54	138	17.41	1.14	20	
o-Xylene	19.320	1.0	20.00	0	96.6	80	121	19.39	0.362	20	
sec-Butylbenzene	19.810	1.0	20.00	0	99.0	72	127	19.65	0.811	20	
Styrene	18.900	1.0	20.00	0	94.5	65	134	18.99	0.475	20	
Tert-amyl methyl ether	18.830	1.0	20.00	0	94.2	70	130	18.79	0.213	20	
Tert-Butanol	80.530	5.0	100.0	0	80.5	70	130	80.55	0.0248	20	
tert-Butylbenzene	18.840	1.0	20.00	0	94.2	70	129	18.67	0.906	20	
Tetrachloroethene	18.870	1.0	20.00	0	94.4	66	128	18.39	2.58	20	
Toluene	19.870	2.0	20.00	0	99.4	77	122	19.83	0.202	20	
trans-1,2-Dichloroethene	20.070	1.0	20.00	0	100	63	137	20.17	0.497	20	
trans-1,3-Dichloropropene	20.630	1.0	20.00	0	103	59	135	20.57	0.291	20	
Trichloroethene	18.830	1.0	20.00	0	94.2	70	127	18.68	0.800	20	
Trichlorofluoromethane	23.710	1.0	20.00	0	119	57	129	23.97	1.09	20	
Vinyl chloride	22.090	0.50	20.00	0	110	50	134	22.74	2.90	20	
Xylenes, Total	58.310	2.0	60.00	0	97.2	75	125	58.93	1.06	20	
Surr: 1,2-Dichloroethane-d4	27.890		25.00		112	72	119		0		

Qualifiers:

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|--|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range | H Holding times for preparation or analysis exceeded |
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Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID P151208LCSD	SampType: LCSD	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104516						
Client ID: LCSS02	Batch ID: P15VW235	TestNo: EPA 8260B		Analysis Date: 12/8/2015	SeqNo: 2158270						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	26.220		25.00		105	76	119		0		
Surr: Dibromofluoromethane	27.360		25.00		109	85	115		0		
Surr: Toluene-d8	26.940		25.00		108	81	120		0		

Sample ID P151208MB3	SampType: MBLK	TestCode: 8260_WP_SF	Units: ug/L	Prep Date:	RunNo: 104516						
Client ID: PBW	Batch ID: P15VW235	TestNo: EPA 8260B		Analysis Date: 12/8/2015	SeqNo: 2158271						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.0									
1,1,1-Trichloroethane	ND	1.0									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	1.0									
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	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 |



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

"Serving Clients with Passion and Professionalism"

CLIENT: CH2MHill
Work Order: N017813
Project: SFPP - Norwalk Site

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_SFPP

Sample ID	SampType	TestCode	Units	Prep Date	RunNo						
P151208MB3	MLK	8260_WP_SF	ug/L		104516						
Client ID: PBW	Batch ID: P15VW235	TestNo: EPA 8260B		Analysis Date: 12/8/2015	SeqNo: 2158271						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	ND	10									
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	0.060	1.0									J
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
Di-isopropyl ether	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl tert-butyl ether	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	0.030	1.0									J
Methylene chloride	ND	2.0									

Qualifiers:

- | | | |
|--|--|--|
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Client ID: PBW	Batch ID: P15VW235	TestNo: EPA 8260B		Analysis Date: 12/8/2015	SeqNo: 2158271						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	ND	1.0									
n-Butylbenzene	0.040	1.0									J
n-Propylbenzene	ND	1.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
Tert-amyl methyl ether	ND	1.0									
Tert-Butanol	ND	5.0									
tert-Butylbenzene	ND	1.0									
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									
Trichlorofluoromethane	ND	1.0									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.0									
Surr: 1,2-Dichloroethane-d4	28.180		25.00		113	72	119				
Surr: 4-Bromofluorobenzene	24.960		25.00		99.8	76	119				
Surr: Dibromofluoromethane	26.830		25.00		107	85	115				
Surr: Toluene-d8	26.460		25.00		106	81	120				

Qualifiers:

- | | | |
|--|--|--|
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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: 12/4/2015 Workorder: N017813
 Rep sample Temp (Deg C): 3.8 IR Gun ID: 2
 Temp Blank: Yes No
 Carrier name: Golden State Overnight
 Last 4 digits of Tracking No.: 8689 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 <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 2. Custody seals intact, signed, dated on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 5. Sampler's name present in COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 6. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 7. Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 8. Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 9. Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 10. Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 11. All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| 12. Temperature of rep sample or Temp Blank within acceptable limit? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 13. Water - VOA vials have zero headspace? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 14. Water - pH acceptable upon receipt?
Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| 15. Did the bottle labels indicate correct preservatives used? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/> |
| 16. Were there Non-Conformance issues at login?
Was Client notified? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| | Yes <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |

Comments:

Checklist Completed By: HG  12/10/15

Reviewed By:  for 12/11/15

ASSET Laboratories

WORK ORDER Summary

04-Dec-15

WorkOrder: N017813

Client ID: CH2HI03

Project: SFPP - Norwalk Site

QC Level: RTNE

Date Received: 12/4/2015

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
N017813-001A	INF-12-03	12/3/2015 1:30:00 PM	12/11/2015	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
			12/11/2015		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VW
N017813-001B			12/11/2015		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			12/11/2015		EPA 8015B	TPH EXTRACTABLE BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			12/11/2015		EPA 8015B	Total TPH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N017813-002A	FOLDER		12/11/2015	Folder	Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



800-322-5555 www.gso.com

Ship From

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

Tracking #: 530158689

CPS



Ship To

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

LVS
LAS VEGAS

A

COD: \$0.00

Weight: 0 lb(s)

Reference:

C89102A

Delivery Instructions:

HOLD FOR PICK UP

Signature Type: REQUIRED



45561469

Print Date: 12/3/2015 4:12 PM

Package 1 of 3

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.