

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

May 14, 2018

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

Re: Effluent Monitoring Report

January through March 2018 SFPP, L.P. Norwalk Pump Station 15306 Norwalk Boulevard, Norwalk, California (NPDES No. CA0063509, CI No. 7497)

Attention: Information Technology Unit

Executed on the <u>14<sup>th</sup></u> day of <u>May</u> 2018.

at 9:08 p.m.

In reference to the subject National Pollutant Discharge Elimination System (NPDES) permit, please find enclosed the First Quarter 2018 Effluent Monitoring Report for the subject discharge.

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

Mysle Of
(signature)
Stephen T. Defibaugh (printed name)

Remediation Project Manager (title)

#### CH2M



2600 Michelson Drive, Suite 500 Irvine, California 92612 O +1 949 224 7500 F + 1 949 224 7501

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

May 14, 2018

Subject: Effluent Monitoring Report, January 1 to March 31, 2018 (First Quarter 2018)

SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California

(NPDES No. CA0063509, CI No. 7497, Order No. R4-2016-0309)

Dear Mr. Defibaugh,

This report has been prepared by CH2M HILL Engineers, Inc. (CH2M), on behalf of Kinder Morgan Energy Partners, L.P. (Kinder Morgan), to summarize National Pollutant Discharge Elimination System (NPDES) monitoring related to the discharge of treated groundwater from Kinder Morgan's product recovery and groundwater extraction (GWE) system. This system is located at the SFPP, L.P. (SFPP) Norwalk Pump Station within the Defense Fuel Support Point Norwalk, at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1).

This report describes NPDES monitoring activities during the period of January 1 to March 31, 2018. Kinder Morgan performed operations, maintenance, and monitoring tasks on the product recovery and GWE systems. Kinder Morgan retained CH2M to prepare this report based on the NPDES monitoring performed by Kinder Morgan.

# Remediation Systems

Kinder Morgan operates remediation systems consisting of soil vapor extraction (SVE), total fluids extraction (TFE) of free product and/or groundwater using a top-loading pump, GWE using a bottom-loading pump, and treatment of extracted soil vapors and groundwater to address the south-central and southeastern areas of the site. Biosparging is also employed in the south-central area to enhance natural attenuation of hydrocarbon constituents.

Operation of the West Side Barrier (WSB) GWE system for remediation of the western offsite area was discontinued in August 2008 based on the reduced lateral extent and low concentrations of volatile organic compounds (VOCs) west of the site.

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The remedial objectives are to contain and control the migration of hydrocarbon constituents in groundwater and soil vapor, and to remove hydrocarbon mass from soil and groundwater. The remediation system includes the following wells:

- South-Central Area
  - 20 TFE wells
  - 24 onsite and 6 offsite SVE wells (most collocated with TFE wells)
  - 2 horizontal SVE wells
  - 1 horizontal biosparge well
- Southeastern Area (24-inch Block Valve Area)
  - 4 TFE wells (GMW-O-15, GMW-O-18, GMW-36, and GMW-SF-9)
  - 3 SVE wells (collocated with TFE wells)
  - 1 GWE well (GMW-SF-10)
  - 1 horizontal biosparge well

The remediation system layout is shown on Figure 2. A brief description of each system is provided below.

## **SVE System**

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 vapor. 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 regenerative thermal oxidizer (RTO) where VOCs are converted to carbon dioxide and water prior to being discharged to the atmosphere. Operation of the GWTS and SVE system is conducted in accordance with Permits to Operate (Permit Numbers [Nos.] G46188 A/N 578779 and G46187 A/N 578777, respectively; ID 110835) issued by the South Coast Air Quality Management District.

# **Groundwater Treatment System**

The main GWTS handles free product and groundwater recovered from the south-central and southeastern parts of the site. Free product and groundwater recovered by pneumatically operated, top-loading total fluid pumps and bottom-loading groundwater pumps are piped to a dissolved air floatation oil-water separator (DAF/OWS). Free product, if any, from the DAF/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 and methyl tertiary butyl ether. The treated groundwater then passes through polishing LGAC units prior to discharge to a storm drain that leads to Coyote Creek. Discharge to Coyote Creek is performed in accordance with the NPDES permit (Permit No. CA0063509; Order No. R4-2016-0309), which was adopted on September 7, 2016, and became effective on November 1, 2016.

# Horizontal Biosparge System

Kinder Morgan completed installation of a horizontal biosparge system in the south-central area of the site in 2014. The biosparge well is constructed of 4-inch-diameter, Schedule 80 polyvinyl chloride (PVC) casing and screen completed to a vertical depth of approximately 45 feet below ground surface (bgs). The lateral distance of the screen interval is 600 feet; the screen interval is situated below the central portion of the south-central area hydrocarbon plume. Further details regarding the construction of the biosparge well are documented in the report titled, *Horizontal Biosparge Well and Soil Vapor Monitoring* 

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Probe Completion Report, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California (CH2M, 2015<sup>1</sup>).

Biosparging involves introducing air into the groundwater in situ to enhance biodegradation of VOCs present in product and groundwater. The biosparge compressor delivers ambient air to the biosparge well at a maximum design rate of approximately 500 standard cubic feet per minute. Vapors generated by the biosparge well are captured by the SVE system. The SVE system has an interlock that prevents the biosparge system from turning on unless the SVE system is operating. Operation of the SVE system reduces the potential for off-gassing of VOCs during biosparge operations. Pilot testing of the biosparge system commenced in early January 2016, and continued through October 2016. A comprehensive pilot test evaluation report that incorporates soil vapor and groundwater data was submitted to the Regional Water Quality Control Board (Water Board) in August 2017 (CH2M, 2017²). The biosparge system was restarted on June 27, 2017, after installation and startup of the new RTO system.

Based on the positive results of the pilot study, a second horizontal biosparge well was installed in the southeastern area of the site in November 2017. The design of the second biosparge well is similar to the south-central biosparge well: 4-inch-diameter Schedule 80 PVC casing and screen completed to a depth of approximately 45 feet bgs. The lateral distance of the screen interval is 240 feet centered below the southeastern area hydrocarbon plume. A construction completion report documenting construction activities and specifications will be submitted to the Water Board during the summer 2018. A second biosparge compressor will be installed in 2018 to deliver ambient air to the new biosparge well, which will be appropriately sized to allow for future system expansion.

A summary of the GWTS operations during the reporting period is presented below. Operations of the SVE and biosparge systems are presented separately in quarterly remediation progress reports that are provided to the Water Board and Restoration Advisory Board (RAB).

# Summary of Quarterly GWTS Operations

A total of 708,746 gallons of groundwater was extracted from the south-central and southeastern areas, treated, and discharged to Coyote Creek during the first quarter 2018. Wells that were in operation included MW-SF-3, MW-SF-15, GMW-9, GMW-10, GMW-O-11, GMW-O-20, and GMW-O-23 in the south-central area, and GMW-O-15, GMW-O-18, GMW-36, and GMW-SF-9 in the southeastern area. No groundwater was extracted from the WSB area during this period. Table 1 summarizes the average daily flow rate during the reporting period. The GWTS operated throughout the quarter, with the following exceptions:

- The GWTS was off from January 10 through January 22, 2018, to facilitate the removal and replacement of a Southern California Edison (SCE) power pole in the south-central area of the site, and for relocation of the GWTS control panel. The system was on briefly on January 12 and 19, 2018, to test the GWTS. The GWTS was restarted for normal operation on January 22, 2018.
- The GWTS was also off from January 30 through February 6, 2018 for routine maintenance of the OWS and GWTS. The GWTS was turned on briefly on February 2, 2018 to test the GWTS and returned to normal operation on February 6, 2018.

No free product accumulated in the product holding tank of the GWTS during the first quarter 2018.

<sup>&</sup>lt;sup>1</sup> CH2M HILL (CH2M). 2015. Horizontal Biosparge Well and Soil Vapor Monitoring Probe Completion Report, SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California. February 18.

<sup>&</sup>lt;sup>2</sup> CH2M HILL (CH2M). 2017. Evaluation Report for the South-Central Area Horizontal Biosparge Pilot Test; SFPP Norwalk Pump Station, Norwalk, California. August.

In addition, hand bailing of free product (from wells not equipped for TFE) was not performed during this reporting period because free product was not detected in the wells.

# Routine Effluent Monitoring

During the first quarter 2018, effluent water samples were collected pursuant to the Waste Discharge Requirements (WDRs) under Order No. R4-2016-0309. Samples were collected at the Order-designated monitoring point EFF-001 (Remediation System Effluent) for monthly and quarterly analyses.

All compliance samples were shipped to Asset Laboratories in Las Vegas, Nevada, for analysis. Asset Laboratories sent samples to BC Laboratories, Inc. in Bakersfield, California for biochemical oxygen demand and ammonia as nitrogen analysis. The samples were analyzed in accordance with current U.S. Environmental Protection Agency (EPA) guidelines or as specified in the WDRs for the site. The laboratory reports are included in Attachment A. A data quality assurance/quality control evaluation conducted by CH2M is included in Attachment B.

# Summary of Compliance Results

## Monthly and Quarterly Sampling

Effluent daily flow rates are presented in Table 1. Analytical results for the January, February, and March 2018 effluent sampling events are summarized in Table 2. The daily flow rate in Coyote Creek, which is based on data from the Los Angeles County Department of Public Works flow gauge station F354-R, is presented in Table 3. The results were compared with the maximum daily and average monthly discharge limits under Order No. R4-2016-0309. As shown in Table 2, all discharge limits for the treatment system effluent were met during the reporting period. Laboratory analytical reports and chain-of-custody documents are included in Attachment A. The mass emission (in pounds per day) is calculated by multiplying the daily effluent flow measured during the day of the sampling event (million gallons per day) by the concentration of the analyte (milligrams per liter) and the conversion factor of 8.34, as required by the discharge permit. If the analyte was not detected in the sample, the concentration used is half of the method detection limit.

Under NPDES Order No. R4-2016-0306, a wet weather condition is present when the maximum daily flow in Coyote Creek is equal to or greater than 156 cubic feet per second (cfs) as measured at the Los Angeles County Department of Public Works flow gauge station F354-R, located at the bottom of the creek just above the Long Beach Water Reclamation Plant. Based on the data, the January 2018 sampling event (with maximum daily flows of 7,100 cfs) occurred during wet weather conditions. Therefore, analytical results for January 2018 are compared to the wet weather discharge limit, and analytical results for February and March 2018 are compared to the dry weather discharge limit.

# Waste Hauling

On January 30, 2018, approximately 2,300 gallons of hazardous waste liquid (rinsate water from cleaning of the OWS) were removed from the site by Patriot Environmental Services of 508 East E. Street, Unit A, Wilmington, California 90744. The waste was transported to DeMenno Kerdoon at 2000 North Alameda Street, Compton, California 90222.

On March 19, 2018, approximately 280 pounds of non-Resource Conservation and Recovery Act (RCRA) hazardous waste (spent bag filters) were removed from the site by Clean Harbors Environmental Service Inc. of 1737 East Denni Street, Wilmington, California 90744. The waste was transported to Clean Harbors Wilmington LLC. at 1737 East Denni Street, Wilmington, California 90744.

Copies of the waste manifests are included in Attachment C.

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Should you require any further information, please contact Vladimir Carino at (949) 224-7548.

Regards,

CH2M HILL Engineers, Inc.

Vladimir Carino Project Engineer

CH2M HILL is now part of Jacobs Engineering Group Inc.

### Attachments:

Table 1 – Effluent Flow Rate Measurements, First Quarter 2018

Table 2 – NPDES Effluent Monitoring, First Quarter 2018

Table 3 – Maximum Daily Flow in Coyote Creek, First Quarter 2018

Figure 1 – Site Location Map

Figure 2 – Remediation System Layout

Attachment A – Laboratory Analytical Reports and Chain-of-Custody Documents

Attachment B - Data Quality Assurance/Quality Control

Attachment C – Waste Manifests

Tables

Table 1. Effluent Flow Rate Measurements, First Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Average Flow Rate (gpd)
Date	(Maximum Daily Discharge Limit = 150,000 gpd <sup>a</sup> )
01/01/18	9,122
01/02/18	9,938
01/03/18	11,254
01/04/18	11,090
01/05/18	11,030
01/06/18	11,184
01/07/18	10,898
01/08/18	11,314
01/09/18	10,224
01/10/18	1,812
01/11/18	0
01/12/18	62
01/13/18	0
01/14/18	0
01/15/18	0
01/16/18	0
01/17/18	0
01/18/18	0
01/19/18	818
01/20/18	0
01/21/18	0
01/22/18	0
01/23/18	6,920
01/24/18	8,208
01/25/18	6,078
01/26/18	5,782
01/27/18	5,920
01/28/18	5,660
01/29/18	5,060
01/30/18	2,720
01/31/18	0
02/01/18	0
02/02/18	666
02/03/18	0
02/04/18	0
02/05/18	0
02/06/18	7,110
02/07/18	15,888
02/08/18	18,060
02/09/18	14,340
02/10/18	12,860
02/11/18	12,436
02/12/18	12,434
02/13/18	11,720
02/14/18	11,142
02/15/18	11,732
02/16/18	11,110
02/17/18	11,016
02/18/18	11,034
02/19/18	10,856
02/20/18	11,016
02/21/18	11,160
02/22/18	13,044
02/23/18	11,404
02/24/18	8,032
	11,108
02/25/18	11.108

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Table 1. Effluent Flow Rate Measurements, First Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Average Flow Rate (gpd)
Date	(Maximum Daily Discharge Limit = 150,000 gpda)
02/27/18	11,820
02/28/18	9,636
03/01/18	9,010
03/02/18	9,351
03/03/18	9,351
03/04/18	9,351
03/05/18	9,351
03/06/18	5,477
03/07/18	4,635
03/08/18	3,891
03/09/18	1,520
03/10/18	5,312
03/11/18	6,076
03/12/18	4,900
03/13/18	8,768
03/14/18	11,774
03/15/18	9,454
03/16/18	11,668
03/17/18	12,380
03/18/18	11,920
03/19/18	12,050
03/20/18	11,090
03/21/18	11,600
03/22/18	12,016
03/23/18	11,612
03/24/18	11,560
03/25/18	11,616
03/26/18	11,472
03/27/18	11,420
03/28/18	11,150
03/29/18	11,150
03/30/18	11,094
03/31/18	10,686

## Notes:

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<sup>&</sup>lt;sup>a</sup> California Regional Water Quality Control Board Waste Discharge Requirements (WDRs). gpd = gallons per day

## Table 2. NPDES Effluent Monitoring, First Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

SEPP Norwalk Pump Station, Norwalk, Call										Di	scharge Limits <sup>b</sup>
	Sampling	Analytical								Monthly	Daily
Analyte	Frequency	Method	Units	MDL <sup>c</sup>	RL <sup>c</sup>	$ML^a$	1/9/2018	2/6/2018	3/6/2018	Average	Maximum
Flow	Daily		gpd				10,224	7,110	5,447		150,000
TPH as gas (C4-C12)	Monthly	EPA 8015B	μg/L	16	50	NE	<16	<16	<16		
TPH as Diesel (C13-C22)	Monthly	EPA 8015B	μg/L	16	26	NE	<16	<16	<15		
TPH as Oil (C23+)	Monthly	EPA 8015B	μg/L	14	26	NE	<14	14 J	<19		
Total TPH	Monthly	EPA 8015B	μg/L	16	50	NE	<16	<16	<19		100
Total TPH	Monthly	Calculated	lbs/day				0.000682	0.000474	0.000432		0.13
Benzene	Monthly	EPA 8260B	μg/L	0.34	1	2.0	<0.34	<0.34	<0.34		
1,1-Dichloroethane	Monthly	EPA 8260B	μg/L	0.45	0.5	1.0	<0.45	<0.45	<0.45		
1,2-Dichloroethane	Monthly	EPA 8260B	μg/L	0.29	0.5	2.0	<0.29	<0.29	<0.29		
Ethylbenzene	Monthly	EPA 8260B	μg/L	0.31	1.0	2.0	<0.31	<0.31	<0.31		
Phenol	Monthly	EPA 8270C	μg/L	0.33	1.0	1	<0.33	<0.33	<0.33		
Toluene	Monthly	EPA 8260B	μg/L	0.46	2.0	2.0	<0.46	<0.46	<0.46		
Methyl tertiary-butyl ether	Monthly	EPA 8260B	μg/L	0.34	1.0	NE	<0.34	<0.34	<0.34		
Tertiary butyl alcohol	Monthly	EPA 8260B	μg/L	2.4	5.0	NE	<2.4	<2.4	<2.4		
Total Xylenes	Monthly	EPA 8260B	μg/L	1.5	2.0	NE	<1.5	<1.5	<1.5		
Copper (total recoverable) (dry weather)	Monthly	EPA 200.8	μg/L μg/L	0.26	0.5	0.5	\1.5 	<0.26	<0.26	9.7	32
Copper (total recoverable) (dry weather)	Monthly	Calculated	lbs/day	0.20				0.000008	0.000006	0.012	0.04
		EPA 200.8			0.5	0.5	<0.26			8.3	27
Copper (total recoverable) (wet weather)	Monthly		μg/L	0.26			0.000011			0.010	0.034
Copper (total recoverable) (wet weather)	Monthly	Calculated	lbs/day								
Lead (total recoverable) (wet weather)	Monthly	EPA 200.8	μg/L	0.13	0.5	0.5	<0.037			33	106
Lead (total recoverable) (wet weather)	Monthly	Calculated	lbs/day				0.000002			0.041	0.13
Mercury (total recoverable)	Monthly	EPA 245.1	μg/L	0.018	0.1	0.2	<0.018	<0.018	<0.018	0.051	0.10
Mercury (total recoverable)	Monthly	Calculated	lbs/day				0.000001	0.000001	0	6.4E-05	1.3E-04
Zinc (total recoverable) (dry weather)	Monthly	EPA 200.8	μg/L	0.27	1.0	1.0		1.1	<0.27	64	220
Zinc (total recoverable) (dry weather)	Monthly	Calculated	lbs/day					0.000065	0.000006	0.080	0.28
Zinc (total recoverable) (wet weather)	Monthly	EPA 200.8	μg/L	0.27	1.0	1.0	<0.27			46	158
Zinc (total recoverable) (wet weather)	Monthly	Calculated	lbs/day				0.000012			0.058	0.2
BOD	Quarterly	SM 5210B	mg/L	1.5	1.5	NE	1.8			20	30
BOD	Quarterly	Calculated	lbs/day				0.153483			25	38
Total Suspended Solids	Quarterly	SM 2540D	mg/L	10	10.00	NE	<10			50	75
Total Suspended Solids	Quarterly	Calculated	lbs/day				0.426341			63	94
pH	Quarterly		s.u.			NE	7.2				6.5/8.5
Oil and Grease	Quarterly	EPA 1664A	mg/L	0.74	4.50	NE	<0.74			10	15
Oil and Grease	Quarterly	Calculated	lbs/day				0.031549			13	19
Ammonia Nitrogen (as N)	Quarterly	SM 4500 NH3G	mg/L	0.078	0.20	NE	<0.078				
Settleable Solids	Quarterly	SM 2540F	mL/L/hr	0.096	0.10	NE	<0.096			0.1	0.3
Temperature	Quarterly	Temperature	°F			NE	65.8				86
Turbidity	Quarterly	SM 2130B	NTU	0.1	0.10	NE	0.36			50	75
Salinity	2x/year	SM 2520B	ppt			NE					
Chronic Toxicity	2x/year		PASS/FAIL			NE				Pass	Pass and % Effect <50
Di-isopropyl Ether	Annually	EPA 8260B	μg/L			NE					
Methyl ethyl ketone	Annually	EPA 8260B	μg/L			NE					
Methylene Blue Active Substances	Annually	SM 5540C	mg/L			NE					
Nitrate + Nitrite as N	Annually	EPA 300.0	mg/L			NE					
Sulfides	Annually	SM 4500 SD	mg/L			NE					
Tert-amyl-methyl Ether	Annually	EPA 8260B	μg/L			NE					
TCDD Equivalents	Annually	EPA 8290	pg/L			NE					
Other Priority Pollutants	Annually		See Table 3								

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### Table 2. NPDES Effluent Monitoring, First Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

#### Notes:

#### Abbreviations:

-- = not measured or not analyzed

< = not detected above the MDL

° F = degrees Fahrenheit

μg/L = micrograms per liter

 $\mbox{\ensuremath{\mathsf{J}}}$  = detected at a concentration below the RL and above the MDL.

Reported value is estimated.

MDL = laboratory method detection limit mg/L = milligrams per liter ML = minimum level. See note a.

mL/L/hr = milliliters per liter per hour

NE = not established

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<sup>&</sup>lt;sup>a</sup> ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is also the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes, and processing steps have been followed.

<sup>&</sup>lt;sup>b</sup> California Regional Water Quality Control Board Waste Discharge Requirements (WDRs) under Order No. R4-2016-0309.

<sup>&</sup>lt;sup>c</sup> The highest MDL and RL during this reporting period are shown.

Table 3. Maximum Daily Flow in Coyote Creek, First Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Maximum Daily Flow Rate	
Date	(cfs) <sup>a</sup>	Comments
01/01/18	4.4	
01/02/18	5.0	
01/03/18	5.7	
01/04/18	5.6	
01/05/18	12.1	
01/06/18	4.1	
01/07/18	3.8	
1/8/2018 <sup>a</sup>	1,300	
1/9/2018 <sup>a</sup>	7,100	January 2018 sampling conducted
1/10/2018 <sup>a</sup>	366	
01/11/18	16.2	
01/12/18	11.6	
01/13/18	7.9	
01/14/18	9.1	
01/15/18	5.9	
01/16/18	8.2	
01/17/18	9.4	
01/18/18	8.6	
01/19/18	10.5	
01/20/18	23.4	
01/21/18	9.5	
01/22/18	5.8	
01/23/18	8.5	
01/24/18	16.6	
01/25/18	30.3	
01/26/18	68.6	
01/27/18	13.4	
01/28/18	38.9	
01/29/18	15.1	
01/30/18	34.8	
01/31/18	37.7	
02/01/18	45.3	
02/02/18	4.8	
02/03/18	4.4	
02/04/18	5.4	
02/05/18	6.3	
02/06/18	9.9	February 2018 sampling conducted
02/07/18	8.9	restraity 2010 sampling conducted
02/08/18	8.1	
02/09/18	10.0	
02/10/18	10.5	
02/11/18	9.5	
02/11/18	12.2	
02/13/18	23.8	
02/13/18	17.3	
02/15/18	17.5	
02/15/18	17.9	
02/17/18	12.8	
02/17/18	8.5	
02/19/18	9.1	
02/20/18	20.0	
02/21/18	18.2	
02/22/18 02/23/18	19.1 18.8	
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Table 3. Maximum Daily Flow in Coyote Creek, First Quarter 2018

SFPP Norwalk Pump Station, Norwalk, California

	Maximum Daily Flow Rate	
Date	(cfs) <sup>a</sup>	Comments
02/25/18	29.4	
02/26/18	145	
2/27/2018 <sup>a</sup>	1,010	
02/28/18	11.5	
03/01/18	2.0	
3/2/2018 <sup>a</sup>	567	
3/3/2018 <sup>a</sup>	332	
03/04/18	3.8	
03/05/18	1.2	
03/06/18	1.1	March 2018 sampling conducted
03/07/18	1.2	
03/08/18	1.4	
03/09/18	0.8	
3/10/2018 <sup>a</sup>	980	
3/11/2018 <sup>a</sup>	1,470	
03/12/18	3.0	
03/13/18	128	
03/14/18	145	
3/15/2018 <sup>a</sup>	320	
3/16/2018 <sup>a</sup>	1,140	
3/17/2018 <sup>a</sup>	1,460	
03/18/18	3.1	
03/19/18	1.2	
03/20/18	1.4	
3/21/2018 <sup>a</sup>	175	
3/22/2018 <sup>a</sup>	834	
3/23/2018 <sup>a</sup>	226	
03/24/18	3.5	
03/25/18	1.1	
03/26/18	2.4	
03/27/18	5.5	
03/28/18	3.4	
03/29/18	7.8	
03/30/18	8.1	
03/31/18	5.8	

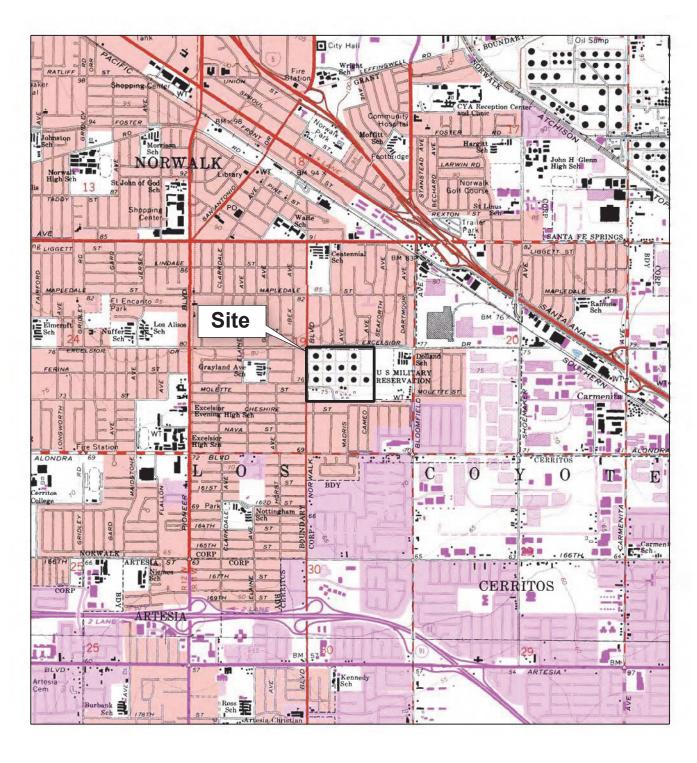
## Notes:

cfs = cubic feet per second

AX0508181729SCO Page 2 of 2

<sup>&</sup>lt;sup>a</sup> A wet weather event is any day when the maximum daily flow of Coyote Creek is greater than or equal to 156 cfs. A dry weather event is any day when the maximum daily flow of Coyote Creek is less than 156 cfs.

Figures



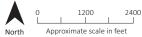
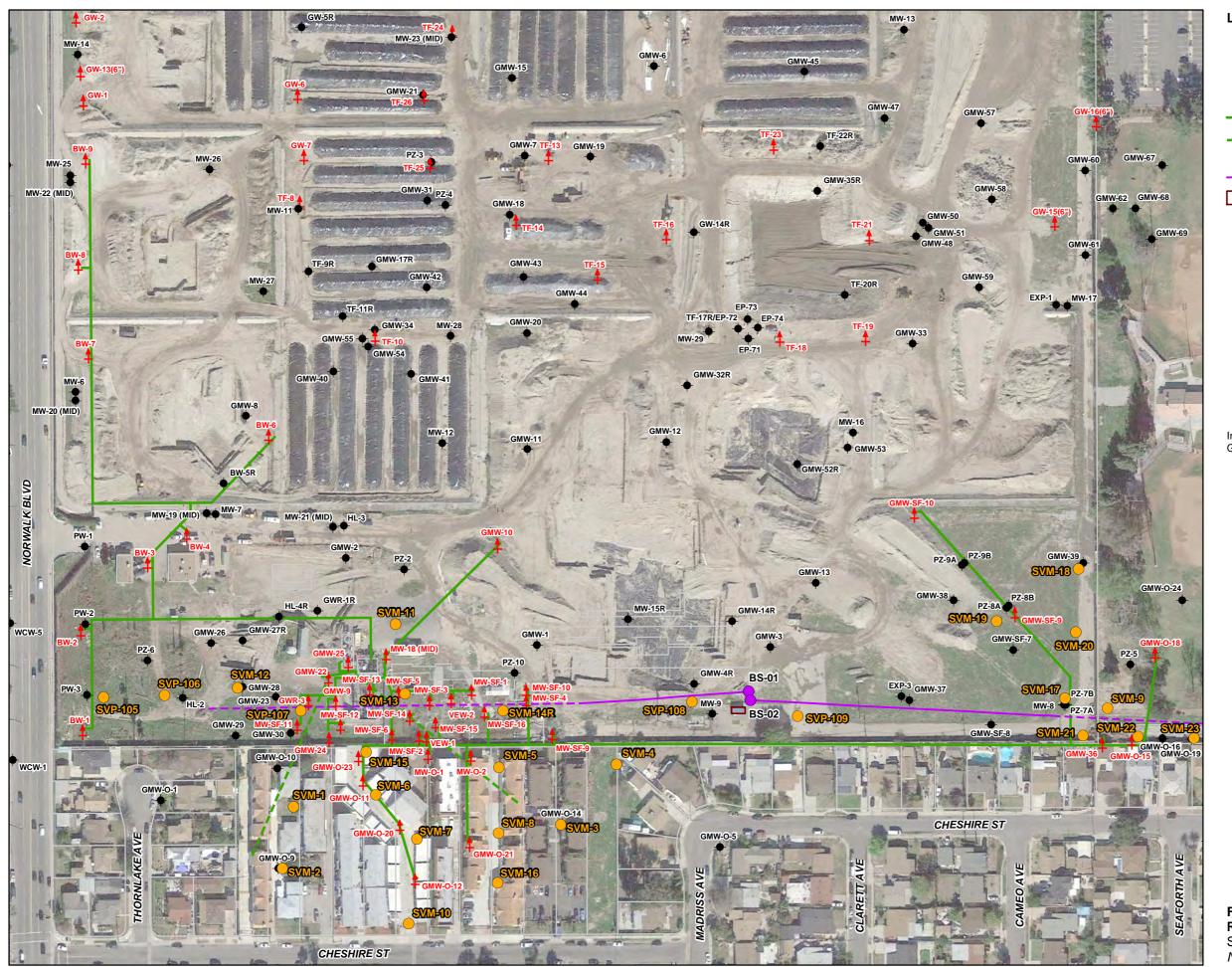


Figure 1
Site Location Map
SFPP Norwalk Pump Station
Norwalk, California

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

- Soil Vapor Probe/Soil Vapor Monitoring Probe
- Horizontal Biosparge Well Entry Point
- Existing Groundwater Monitoring Well
- Existing Remediation Well
  - KMEP Remediation Piping Layout (Above Ground and Below Ground)
- - Horizontal Vapor Extraction Well Piping Horizontal Biosparge Well (Dashed Line Depicts Approximate Lateral Extent of Well Screen)
- Air Compressor System

Imagery Source: Google Earth October 18, 2016.

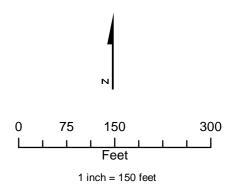


Figure 2 **Remediation System Layout** SFPP Norwalk Pump Station Norwalk, California

Attachment A Laboratory Analytical Reports and Chain-of-Custody Documents January 18, 2018

Eric Davis CH2MHill 1000 Wilshire Blvd.

Los Angeles, CA 90017

TEL:

FAX: Workorder No.: N027903

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on January 09, 2018 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,

Quennie Manimtim

Laboratory Director

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

## **ASSET Laboratories**

CLIENT: CH2MHill
Project: SFPP Norwalk

Lab Order: N027903

# CASE NARRATIVE

**Date:** 18-Jan-18

## SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

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

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

Samples were analyzed within method holding time.

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

## Subcontracted Analysis:

BOD by SM5210B and Ammonia by SM4500NH3C were subcontracted to BC Laboratories with ELAP Cer# 1186.

## **ASSET Laboratories**

CLIENT: CH2MHill
Project: SFPP Norwalk

Lab Order: N027903

Contract No:

## **Work Order Sample Summary**

**Date:** 18-Jan-18

Lab Sample ID Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N027903-001A EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001B EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001C EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001D EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001E EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001F EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001G EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001H EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018
N027903-001I EFF-01-09	Wastewater	1/9/2018 12:50:00 PM	1/9/2018	1/18/2018

## ANALYTICAL RESULTS

**Print Date:** 18-Jan-18

## **ASSET Laboratories**

CLIENT: CH2MHill Client Sample ID: EFF-01-09

Lab Order:N027903Collection Date:1/9/2018 12:50:00 PMProject:SFPP NorwalkMatrix:WASTEWATER

**Lab ID:** N027903-001

Lab ID	N027903-001							
Analyse	es	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
TOTAL	NON-FILTERABLE RESID	DUE						
				SM	2540D			
RunID:	NV00922-WC_180110G	QC Batch: 66	322		PrepDa	ate	1/10/2018	Analyst: LR
Suspe Filtera	ended Solids (Residue, Non- able)	ND	10	10		mg/L	1	1/10/2018 10:22 AM
SETTL	EABLE MATTER							
				SM	2540F			
RunID:	NV00922-WC_180110N	QC Batch: 66	320		PrepDa	ate	1/10/2018	Analyst: QBM
Settle	able Matter	ND	0.096	0.096		ml/L	1	1/10/2018 09:12 AM
ΗΕΧΔΝ	IE EXTRACTABLE MATER	NAI (HEM)						
IILAAI	LE EXTRAOTABLE MATER	CIAL (CILIN)		EPA 1664	_HEM REV	В		
RunID:	NV00922-WC_180112A	QC Batch: 66	348		PrepDa	ate	1/12/2018	Analyst: LR
Oil &	Grease	ND	0.74	4.5		mg/L	1	1/12/2018 07:33 AM
TURBI	DITY							
				SM	2130B			
RunID:	NV00922-WC_180110H	QC Batch: R1	21337		PrepDa	ate		Analyst: LR
Turbio	dity	0.36	0.10	0.10		NTU	1	1/10/2018 04:50 PM
SEMIV	OLATILE ORGANIC COMP	OUNDS BY GC/	MS					
	E	EPA 3510C		EPA	8270C			
RunID:	NV00922-MS3_180114A	QC Batch: 66	356		PrepDa	ate	1/12/2018	Analyst: MJM
Phen	ol	ND	0.33	1.0		μg/L	1	1/14/2018 11:39 PM
Su	rr: 1,2-Dichlorobenzene-d4	72.0	0	16-120		%REC	1	1/14/2018 11:39 PM
Su	rr: 2-Fluorobiphenyl	70.0	0	25-120		%REC	1	1/14/2018 11:39 PM
Su	rr: 4-Terphenyl-d14	105	0	46-132		%REC	1	1/14/2018 11:39 PM
Su	rr: Phenol-d5	32.0	0	15-120		%REC	1	1/14/2018 11:39 PM
VOLAT	TILE ORGANIC COMPOUN	DS BY GC/MS						
				EPA	8260B			
RunID:	NV00922-MS5_180110A	QC Batch: P1	8VW007		PrepDa	ate		Analyst: QBM
1,1-D	ichloroethane	ND	0.45	0.50		ug/L	1	1/10/2018 01:32 PM
1,2-D	ichloroethane	ND	0.29	0.50		ug/L	1	1/10/2018 01:32 PM
Benze	ene	ND	0.34	1.0		ug/L	1	1/10/2018 01:32 PM
Ethyll	penzene	ND	0.31	1.0		ug/L	1	1/10/2018 01:32 PM
m,p-X	(ylene	ND	0.23	1.0		ug/L	1	1/10/2018 01:32 PM
MTBE	<u> </u>	ND	0.34	1.0		ug/L	1	1/10/2018 01:32 PM
o-Xyle	ane	ND	0.31	1.0		ug/L	1	1/10/2018 01:32 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

ASSET LABORATORIES

- 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

CALIFORNIA | P:562.219.7435 F:562.219.7436 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638

## ANALYTICAL RESULTS

**Print Date:** 18-Jan-18

## **ASSET Laboratories**

CLIENT: CH2MHill Client Sample ID: EFF-01-09

Lab Order:N027903Collection Date:1/9/2018 12:50:00 PMProject:SFPP NorwalkMatrix:WASTEWATER

**Lab ID:** N027903-001

Analyse	s	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
VOLAT	ILE ORGANIC COMPOUN	IDS BY GC/MS						
				EPA	8260B			
RunID:	NV00922-MS5_180110A	QC Batch: P1	8VW007		PrepD	ate		Analyst: QBM
Tert-B	Butanol	ND	2.4	5.0		ug/L	1	1/10/2018 01:32 PM
Tolue	ne	ND	0.46	2.0		ug/L	1	1/10/2018 01:32 PM
Xylene	es, Total	ND	1.5	2.0		ug/L	1	1/10/2018 01:32 PM
Sur	r: 1,2-Dichloroethane-d4	105	0	72-119		%REC	1	1/10/2018 01:32 PM
Sur	r: 4-Bromofluorobenzene	99.4	0	76-119		%REC	1	1/10/2018 01:32 PM
Sur	r: Dibromofluoromethane	105	0	85-115		%REC	1	1/10/2018 01:32 PM
Sur	r: Toluene-d8	101	0	81-120		%REC	1	1/10/2018 01:32 PM
TPH EX	(TRACTABLE BY GC/FID							
		EPA 3510C		EPA	8015B			
RunID:	NV00922-GC3_180110A	QC Batch: 663	317		PrepD	ate	1/10/2018	Analyst: SS
TPH-	Diesel (C13-C22)	ND	16	26		ug/L	1	1/10/2018 01:58 PM
TPH-0	Oil (C23-C36)	ND	14	26		ug/L	1	1/10/2018 01:58 PM
Sur	r: Octacosane	63.9	0	26-152		%REC	1	1/10/2018 01:58 PM
Sur	r: p-Terphenyl	61.7	0	57-132		%REC	1	1/10/2018 01:58 PM
GASOL	INE RANGE ORGANICS	BY GC/FID						
				EPA	8015B			
RunID:	NV00922-GC4_180110A	QC Batch: E1	8VW005		PrepD	ate		Analyst: QBM
TPH-0	Gasoline (C4-C12)	ND	16	50		ug/L	1	1/10/2018 04:29 PM
Sur	r: Chlorobenzene - d5	116	0	74-138		%REC	1	1/10/2018 04:29 PM
MERCL	JRY BY COLD VAPOR TE	CHNIQUE						
				EP	A 245.1			
RunID:	NV00922-AA1_180110B	QC Batch: 663	305		PrepD	ate	1/10/2018	Analyst: MG
Mercu	ıry	ND	0.018	0.050		μg/L	1	1/10/2018 01:24 PM
TOTAL	METALS BY ICPMS							
				EPA	A 200.8			
RunID:	NV00922-ICP7_180110A	QC Batch: 663	307		PrepD	ate	1/10/2018	Analyst: CEI
Сорре	er	ND	0.26	0.50		μg/L	1	1/10/2018 12:20 PM
Lead		ND	0.037	0.50		μg/L	1	1/10/2018 12:20 PM
Zinc		ND	0.27	1.0		μg/L	1	1/10/2018 12:20 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

ASSET Laboratories Print Date: 18-Jan-18

CLIENT: CH2MHill Client Sample ID: EFF-01-09

Lab Order:N027903Collection Date: 1/9/2018 12:50:00 PMProject:SFPP NorwalkMatrix: WASTEWATER

**Lab ID:** N027903-001

Analyses Result MDL PQL Qual Units DF Date Analyzed

TOTAL TPH EPA 8015B

RunlD: **NV00922-GC3\_180110A** QC Batch: **R121329** PrepDate Analyst: **SS** 

Total TPH ND 16 50 ug/L 1 1/10/2018

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

ASSET LABORATORIES
AMALICAL REPOST SEMESTRED PRODUCTION ACCORDANCE OF THE PRODUCTION AND PROFESSIONALISM."

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**ASSET Laboratories Date:** 18-Jan-18

CLIENT: CH2MHill Work Order: N027903

ANALYTICAL QC SUMMARY REPORT

**TestCode: 160.2\_2540D\_W** Project: SFPP Norwalk

Sample ID LCS-66322	SampType: LCS	TestCode: 160.2_2540D Units: mg/L	Prep Date: 1/10/2018	RunNo: <b>121336</b>
Client ID: LCSW	Batch ID: 66322	TestNo: SM2540D	Analysis Date: 1/10/2018	SeqNo: <b>2891468</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Suspended Solids (Residue, I	Non-Filter 951.000	10 1000 0	95.1 80 120	
Sample ID MB-66322	SampType: MBLK	TestCode: 160.2_2540D Units: mg/L	Prep Date: 1/10/2018	RunNo: <b>121336</b>
Client ID: PBW	Batch ID: 66322	TestNo: SM2540D	Analysis Date: 1/10/2018	SeqNo: <b>2891469</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Suspended Solids (Residue, I	Non-Filter ND	10		
Sample ID <b>N027895-001ADU</b>	JP SampType: DUP	TestCode: 160.2_2540D Units: mg/L	Prep Date: 1/10/2018	RunNo: <b>121336</b>
Client ID: ZZZZZZ	Batch ID: 66322	TestNo: SM2540D	Analysis Date: 1/10/2018	SeqNo: <b>2891471</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Suspended Solids (Residue, 1	Non-Filter 113.000	10	109.0	3.60 5

### Qualifiers:

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

Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 160.5\_2540F\_W

Sample ID MB-66320	SampType: MBLK	TestCode: 160.5_2540F_ Units: ml/L	Prep Date: 1/10/2018	RunNo: 121409
--------------------	----------------	------------------------------------	----------------------	---------------

Client ID: PBW Batch ID: 66320 TestNo: SM2540F Analysis Date: 1/10/2018 SeqNo: 2893761

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

Settleable Matter ND 0.10

SFPP Norwalk

#### Qualifiers:

B Analyte detected in the associated Method Blank

E Value above quantitation range Analyte detected below quantitation limits Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out CALIFORNIA | P:562.219.7435 F:562.219.7436 ASSET LABORATORIES

NEVADA | P:702.307.2659 F:702.307.269 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

H Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits Calculations are based on raw values

ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 1664\_HEM\_W

Sample ID MB-66348	SampType: MBLK	TestCode: 1664_HEM_ Units: mg/L	Prep Date: 1/12/2018	RunNo: 121382
Client ID: PBW	Batch ID: 66348	TestNo: EPA 1664 _H	Analysis Date: 1/12/2018	SeqNo: <b>2892884</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Oil & Grease	ND	4.0		
Sample ID LCS-66348	SampType: LCS	TestCode: 1664_HEM_ Units: mg/L	Prep Date: 1/12/2018	RunNo: <b>121382</b>
Client ID: LCSW	Batch ID: 66348	TestNo: EPA 1664 _H	Analysis Date: 1/12/2018	SeqNo: <b>2892885</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Oil & Grease	32.600	4.0 40.00 0	81.5 78 114	
Sample ID N027903-001GMS	SampType: MS	TestCode: 1664_HEM_ Units: mg/L	Prep Date: 1/12/2018	RunNo: <b>121382</b>
Sample ID N027903-001GMS Client ID: ZZZZZZ	SampType: MS Batch ID: 66348	TestCode: 1664_HEM_ Units: mg/L TestNo: EPA 1664 _H	Prep Date: 1/12/2018 Analysis Date: 1/12/2018	RunNo: <b>121382</b> SeqNo: <b>2892896</b>
			·	
Client ID: ZZZZZZ	Batch ID: <b>66348</b>	TestNo: EPA 1664 _H	Analysis Date: 1/12/2018	SeqNo: <b>2892896</b>
Client ID: ZZZZZZZ Analyte	Batch ID: <b>66348</b> Result  36.364	TestNo: <b>EPA 1664</b> _ <b>H</b> PQL SPK value SPK Ref Val	Analysis Date: 1/12/2018  %REC LowLimit HighLimit RPD Ref Val	SeqNo: <b>2892896</b>
Client ID: ZZZZZZ Analyte Oil & Grease	Batch ID: <b>66348</b> Result  36.364	TestNo: <b>EPA 1664</b> _ <b>H</b> PQL	Analysis Date: 1/12/2018  %REC LowLimit HighLimit RPD Ref Val  80.0 78 114	SeqNo: <b>2892896</b> %RPD RPDLimit Qual
Client ID: ZZZZZZ  Analyte  Oil & Grease  Sample ID N027903-001GMSD	Batch ID: 66348  Result  36.364  SampType: MSD	TestNo: <b>EPA 1664</b> _ <b>H</b> PQL	Analysis Date:       1/12/2018         %REC       LowLimit       HighLimit       RPD Ref Val         80.0       78       114         Prep Date:       1/12/2018	SeqNo:         2892896           %RPD         RPDLimit         Qual           RunNo:         121382

### Qualifiers:

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

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

ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk

TestCode: 200.8\_W\_SFPP

Sample ID	MB-66307	SampType: MBLK	TestCoo	de: <b>200.8_W</b> _\$	SF Units: µg/L		Prep Date	e: <b>1/10/2018</b>	3	RunNo: 12	1312	
Client ID:	PBW	Batch ID: 66307	TestN	lo: <b>EPA 200.8</b>			Analysis Date	e: <b>1/10/2018</b>	1	SeqNo: 28	90246	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	PD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	0.50									
Lead		ND	0.50									
Zinc		ND	1.0									
Sample ID	LCS-66307	SampType: <b>LCS</b>	TestCoo	de: <b>200.8_W</b> _\$	SF Units: µg/L		Prep Date	e: <b>1/10/2018</b>	3	RunNo: 12	1312	
Client ID:	LCSW	Batch ID: 66307	TestN	lo: EPA 200.8			Analysis Date	e: <b>1/10/2018</b>	1	SeqNo: 28	90247	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	PD Ref Val	%RPD	RPDLimit	Qual
Copper		9.918	0.50	10.00	0	99.2	85	115				
Lead		9.816	0.50	10.00	0	98.2	85	115				
Zinc		102.542	1.0	100.0	0	103	85	115				
Sample ID	N027903-001C-DUP	SampType: <b>DUP</b>	TestCod	de: <b>200.8_W</b> _\$	SF Units: µg/L		Prep Date	e: <b>1/10/2018</b>	}	RunNo: 12	1312	
Client ID:	ZZZZZZ	Batch ID: 66307	TestN	lo: <b>EPA 200.8</b>			Analysis Date	e: 1/10/2018	1	SeqNo: 28	90250	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	PD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	0.50						0	0	20	
Lead		ND	0.50						0	0	20	
Zinc		ND	1.0						0	0	20	
Sample ID	N027903-001C-MS	SampType: MS	TestCoo	de: <b>200.8_W</b> _\$	SF Units: µg/L		Prep Date	e: 1/10/2018	3	RunNo: 12	1312	
Client ID:	ZZZZZZ	Batch ID: 66307	TestN	lo: EPA 200.8			Analysis Date	e: 1/10/2018	1	SeqNo: 28	90252	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit R	PD Ref Val	%RPD	RPDLimit	Qual
Copper		7.922	0.50	10.00	0	79.2	75	125				
Copper Lead		7.922 10.459	0.50 0.50	10.00 10.00	0	79.2 105	75 75	125 125				

### Qualifiers:

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

  CALIFORNIA | P:562.219.7435 F:562.219.7436
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  Serving Clients with Passion and Professionalism"
  EPA ID CA01638

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

ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 200.8\_W\_SFPP

Sample ID N027903-001C-MSD	SampType: MSD	TestCoo	de: <b>200.8_W</b> _	SF Units: µg/L		Prep Dat	e: <b>1/10/20</b>	18	RunNo: <b>12</b> 1	1312	
Client ID: ZZZZZZ	Batch ID: 66307	TestN	lo: EPA 200.8	3		Analysis Dat	te: <b>1/10/20</b>	18	SeqNo: 289	90253	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	7.724	0.50	10.00	0	77.2	75	125	7.922	2.52	20	
Lead	10.483	0.50	10.00	0	105	75	125	10.46	0.225	20	
Zinc	108.660	1.0	100.0	0	109	75	125	110.8	1.93	20	

#### Qualifiers:

B Analyte detected in the associated Method Blank

Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

CALIFORNIA | P:562.219.7435 F:562.219.7436 ASSET LABORATORIES 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921

**EPA ID CA01638** 

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

ANALYTICAL QC SUMMARY REPORT

TestCode: 2130\_W

Project: SFPP Norwalk

Sample ID MB-R121337	SampType: MBLK	TestCode: 2130_W	Units: NTU	Prep Date:	RunNo: 121337
Client ID: PBW	Batch ID: R121337	TestNo: SM 2130B		Analysis Date: 1/10/2018	SeqNo: 2891482

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

Turbidity ND 0.10

·	SampType: <b>DUP</b>		le: 2130_W	Units: NTU		Prep Da			RunNo: <b>12</b> 1		
Client ID: ZZZZZZ	Batch ID: R121337		lo: SM 2130B			•	te: 1/10/20		SeqNo: 289		
Analyte	0.340	0.10	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD 5.71	RPDLimit 30	Qual

#### Qualifiers:

B Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out



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ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 245.1\_W\_LL

Sample ID	MB-66305	SampType:	MBLK	TestCode:	245.1_W_L	.L Units: µg/L		Prep Date	: 1/10/2018		RunNo: <b>12</b> 1	1314	
Client ID:	PBW	Batch ID:	66305	TestNo:	EPA 245.1			Analysis Date	: 1/10/2018		SeqNo: <b>28</b> 9	90278	
Analyte			Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit H	HighLimit RI	PD Ref Val	%RPD	RPDLimit	Qual
Mercury			ND	0.050									
Sample ID	LCS-66305	SampType:	LCS	TestCode:	245.1_W_L	L Units: µg/L		Prep Date	: 1/10/2018		RunNo: <b>12</b> 1	1314	
Client ID:	LCSW	Batch ID:	66305	TestNo:	EPA 245.1			Analysis Date	: 1/10/2018		SeqNo: 289	90280	
Analyte			Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit H	HighLimit RI	PD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.587	0.050	2.500	0	103	85	115				
Sample ID	N027903-001C-MS	SampType:	MS	TestCode:	245.1_W_L	L Units: µg/L		Prep Date	: 1/10/2018		RunNo: <b>12</b> 1	1314	
Client ID:	ZZZZZZ	Batch ID:	66305	TestNo:	EPA 245.1			Analysis Date	: 1/10/2018		SeqNo: <b>28</b> 9	90281	
Analyte			Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit H	HighLimit RI	PD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.269	0.050	2.500	0	90.7	75	125				
Sample ID	N027903-001C-MSD	SampType:	MSD	TestCode:	245.1_W_L	.L Units: µg/L		Prep Date	: 1/10/2018		RunNo: <b>12</b> 1	1314	
Client ID:	ZZZZZZ	Batch ID:	66305	TestNo:	EPA 245.1			Analysis Date	: 1/10/2018		SeqNo: <b>28</b> 9	90282	
Analyte			Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit I	HighLimit RI	PD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.384	0.050	2.500	0	95.3	75	125	2.269	4.95	20	
Sample ID	N027903-001C-DUP	SampType:	DUP	TestCode:	245.1_W_L	.L Units: µg/L		Prep Date	: 1/10/2018		RunNo: <b>12</b> 1	1314	
Client ID:	ZZZZZZ	Batch ID:	66305	TestNo:	EPA 245.1			Analysis Date	: 1/10/2018		SeqNo: <b>28</b> 9	90284	
Analyte			Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit H	HighLimit RI	PD Ref Val	%RPD	RPDLimit	Qual
Mercury			ND	0.050						0	0	20	

### Qualifiers:

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

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

ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 8015\_W\_FP\_SFPP

Sample ID MB-66317	SampType: MBLK	TestCode: 8	3015_W_F	P_ Units: ug/L		Prep Dat	te: <b>1/10/2</b> 0	)18	RunNo: <b>12</b> 1	1329	
Client ID: PBW	Batch ID: 66317	TestNo: I	EPA 8015	B EPA 3510C		Analysis Da	te: <b>1/10/2</b> 0	18	SeqNo: <b>28</b> 9	90751	
Analyte	Result	PQL S	PK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25									
TPH-Oil (C23-C36)	16.894	25									J
Surr: Octacosane	58.797		80.00		73.5	26	152				
Surr: p-Terphenyl	57.012		80.00		71.3	57	132				

#### Qualifiers:



Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out



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**EPA ID CA01638** 

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RPD outside accepted recovery limits

ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 8015\_W\_SFPPTOT

Sample ID MB-R121329	SampType: MBLK	TestCode: 8015_W_SFP Units: ug/L	Prep Date:	RunNo: <b>121329</b>
Client ID: PBW	Batch ID: R121329	TestNo: EPA 8015B	Analysis Date: 1/10/2018	SeqNo: <b>2891451</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Total TPH	16.894	50		J

#### Qualifiers:

B Analyte detected in the associated Method Blank

Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

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H Holding times for preparation or analysis exceeded

N027903

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS\_WSFPP

Sample ID E180110LCS	SampType: LCS		de: <b>8015GAS</b>	_		Prep Dat			RunNo: <b>12</b> 1		
Client ID: LCSW	Batch ID: E18VW005	TestN	lo: <b>EPA 8015</b>	В		Analysis Dat	e: 1/10/20	018	SeqNo: 289	90395	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	916.000 44568.000	50	1000 50000	0	91.6 89.1	67 74	136 138				
Sample ID E180110MB1	SampType: MBLK	TestCod	de: <b>8015GAS</b>	_W Units: ug/L		Prep Dat	e:		RunNo: <b>12</b> 1	1321	
Client ID: PBW	Batch ID: E18VW005	TestN	lo: <b>EPA 8015</b>	В		Analysis Dat	e: 1/10/20	)18	SeqNo: <b>28</b> 9	90396	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	ND 54971.000	50	50000		110	74	138				
Sample ID N027903-001AMS	SampType: MS	TestCod	de: <b>8015GAS</b>	W Units: ug/L		D D			RunNo: 121	1004	
•	Campiypo. III C	1031000	ac. 00 100 AO	_w Onits. ug/L		Prep Dat	e:		Runno: 12	1321	
Client ID: ZZZZZZ	Batch ID: E18VW005		lo: EPA 8015	_		Analysis Dat		018	SeqNo: 289		
Client ID: ZZZZZZ Analyte			lo: <b>EPA 8015</b>	_	%REC	Analysis Dat	e: <b>1/10/2</b> 0	018 RPD Ref Val			Qual
	Batch ID: E18VW005	TestN	lo: <b>EPA 8015</b>	В		Analysis Dat	e: <b>1/10/2</b> 0		SeqNo: <b>28</b> 9	90579	Qual
Analyte  TPH-Gasoline (C4-C12)	Batch ID: <b>E18VW005</b> Result  811.000	TestN PQL 50	SPK value	SPK Ref Val	%REC 81.1	Analysis Dat	e: <b>1/10/20</b> HighLimit 136 138		SeqNo: <b>28</b> 9	90579 RPDLimit	Qual
Analyte  TPH-Gasoline (C4-C12)  Surr: Chlorobenzene - d5	Batch ID: <b>E18VW005</b> Result  811.000  43260.000	PQL 50	No: <b>EPA 8015</b> SPK value  1000  50000	SPK Ref Val  0  _W Units: ug/L	%REC 81.1 86.5	Analysis Dat LowLimit 67 74	e: <b>1/10/2</b> 0 HighLimit 136 138 e:	RPD Ref Val	SeqNo: 289	RPDLimit	Qual
Analyte  TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5  Sample ID N027903-001AMSD	Batch ID: <b>E18VW005</b> Result  811.000 43260.000  SampType: <b>MSD</b>	PQL 50	SPK value  1000 50000  de: 8015GAS	SPK Ref Val  0  _W Units: ug/L	%REC 81.1 86.5	Analysis Dat  LowLimit  67  74  Prep Dat  Analysis Dat	e: 1/10/20 HighLimit 136 138 e:	RPD Ref Val	SeqNo: 289 %RPD	RPDLimit	Qual

### Qualifiers:

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

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

## ANALYTICAL QC SUMMARY REPORT

Project: SFPP Norwalk TestCode: 8260\_WP\_SFPP

Sample ID N027903-001AMS	SampType: MS	TestCod	de: <b>8260_WP</b> .	_SF Units: ug/L		Prep Da	te:		RunNo: 12	1320	
Client ID: ZZZZZZ	Batch ID: P18VW007	TestN	No: EPA 8260	В		Analysis Da	te: 1/10/20	)18	SeqNo: <b>28</b> !	90385	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	19.040	0.50	20.00	0	95.2	69	133				
1,2-Dichloroethane	21.520	0.50	20.00	0	108	69	132				
Benzene	19.700	1.0	20.00	0	98.5	81	122				
Ethylbenzene	18.440	1.0	20.00	0	92.2	73	127				
m,p-Xylene	38.340	1.0	40.00	0	95.9	76	128				
MTBE	17.170	1.0	20.00	0	85.9	65	123				
o-Xylene	19.000	1.0	20.00	0	95.0	80	121				
Tert-Butanol	70.010	5.0	100.0	0	70.0	70	130				
Toluene	18.890	2.0	20.00	0	94.4	77	122				
Xylenes, Total	57.340	2.0	60.00	0	95.6	75	125				
Surr: 1,2-Dichloroethane-d4	27.900		25.00		112	72	119				
Surr: 4-Bromofluorobenzene	24.990		25.00		100	76	119				
Surr: Dibromofluoromethane	27.160		25.00		109	85	115				
Surr: Toluene-d8	25.960		25.00		104	81	120				

Sample ID N027903-001AMSD	SampType: MSD	TestCo	de: <b>8260_WP</b> .	_SF Units: ug/L		Prep Da	te:		RunNo: 12	1320	
Client ID: ZZZZZZ	Batch ID: P18VW007	Test	No: <b>EPA 8260</b>	В		Analysis Da	te: 1/10/20	118	SeqNo: <b>28</b> 9	90386	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	18.870	0.50	20.00	0	94.4	69	133	19.04	0.897	20	
1,2-Dichloroethane	20.880	0.50	20.00	0	104	69	132	21.52	3.02	20	
Benzene	19.810	1.0	20.00	0	99.0	81	122	19.70	0.557	20	
Ethylbenzene	19.230	1.0	20.00	0	96.2	73	127	18.44	4.19	20	
m,p-Xylene	39.280	1.0	40.00	0	98.2	76	128	38.34	2.42	20	
MTBE	17.370	1.0	20.00	0	86.9	65	123	17.17	1.16	20	
o-Xylene	19.820	1.0	20.00	0	99.1	80	121	19.00	4.22	20	
Tert-Butanol	71.710	5.0	100.0	0	71.7	70	130	70.01	2.40	20	
Toluene	18.610	2.0	20.00	0	93.0	77	122	18.89	1.49	20	
Xylenes, Total	59.100	2.0	60.00	0	98.5	75	125	57.34	3.02	20	
Surr: 1,2-Dichloroethane-d4	26.630		25.00		107	72	119		0		

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit

- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

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

## ANALYTICAL QC SUMMARY REPORT

Project: SFPP Norwalk TestCode: 8260\_WP\_SFPP

Sample ID N027903-001AMSD	SampType: MSD	TestCode: 8260_WP_SF Units: ug/L	RunNo: 121320	
Client ID: ZZZZZZ	Batch ID: P18VW007	TestNo: EPA 8260B	Analysis Date: 1/10/2018	SeqNo: <b>2890386</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Surr: 4-Bromofluorobenzene	25.180	25.00	101 76 119	0
Surr: Dibromofluoromethane	25.890	25.00	104 85 115	0
Surr: Toluene-d8	25.000	25.00	100 81 120	0
Sample ID P180110MB3	SampType: MBLK	TestCode: 8260_WP_SF Units: ug/L	Prep Date:	RunNo: <b>121320</b>
Client ID: PBW	Batch ID: P18VW007	TestNo: EPA 8260B	Analysis Date: 1/10/2018	SeqNo: <b>2890389</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
1,1-Dichloroethane	ND	0.50		
1,2-Dichloroethane	ND	0.50		
Benzene	ND	1.0		
Ethylbenzene	ND	1.0		
m,p-Xylene	ND	1.0		
MTBE	ND	1.0		
o-Xylene	ND	1.0		
Tert-Butanol	ND	5.0		
Toluene	ND	2.0		
Xylenes, Total	ND	2.0		
Surr: 1,2-Dichloroethane-d4	25.890	25.00	104 72 119	
Surr: 4-Bromofluorobenzene	25.600	25.00	102 76 119	
Surr: Dibromofluoromethane	26.410	25.00	106 85 115	
Surr: Toluene-d8	25.220	25.00	101 81 120	
Sample ID P180110LCS	SampType: LCS	TestCode: 8260_WP_SF Units: ug/L	Prep Date:	RunNo: <b>121320</b>
Client ID: LCSW	Batch ID: P18VW007	TestNo: EPA 8260B	Analysis Date: 1/10/2018	SeqNo: <b>2890757</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

## Benzene Qualifiers:

1,1-Dichloroethane

1,2-Dichloroethane

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

20.00

20.00

20.00

RPD outside accepted recovery limits Calculations are based on raw values

H Holding times for preparation or analysis exceeded

133

132

122

69

69

81



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0.50

0.50

1.0

20.010

21.420

20.660

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0

0

0

100

107

103

TestCode: 8260\_WP\_SFPP **Project:** SFPP Norwalk

Sample ID P180110LCS	SampType: <b>LCS</b>	TestCo	de: <b>8260_WP</b> .	_SF Units: ug/L		Prep Da	te:		RunNo: 12	1320	
Client ID: LCSW	Batch ID: P18VW007	TestN	lo: EPA 8260	В		Analysis Da	te: 1/10/20	118	SeqNo: <b>28</b> !	90757	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	20.310	1.0	20.00	0	102	73	127				
m,p-Xylene	41.140	1.0	40.00	0	103	76	128				
MTBE	17.380	1.0	20.00	0	86.9	65	123				
o-Xylene	20.260	1.0	20.00	0	101	80	121				
Tert-Butanol	73.940	5.0	100.0	0	73.9	70	130				
Toluene	19.540	2.0	20.00	0	97.7	77	122				
Xylenes, Total	61.400	2.0	60.00	0	102	75	125				
Surr: 1,2-Dichloroethane-d4	27.560		25.00		110	72	119				
Surr: 4-Bromofluorobenzene	25.330		25.00		101	76	119				
Surr: Dibromofluoromethane	27.590		25.00		110	85	115				
Surr: Toluene-d8	25.310		25.00		101	81	120				

### Qualifiers:

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

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

ANALYTICAL QC SUMMARY REPORT

#### **CLIENT:** CH2MHill

Work Order: N027903

Project: SFPP Norwalk

### ANALYTICAL QC SUMMARY REPORT

TestCode: 8270WATER\_SIMEXT

Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Calculations are based on raw values

Sample ID LCS-66356	SampType: <b>LCS</b>	TestCode: 8270WATER	_ Units: µg/L		Prep Date:	: 1/12/2018	RunNo: <b>121407</b>	
Client ID: LCSW	Batch ID: 66356	TestNo: EPA 8270C	EPA 3510C		Analysis Date:	1/14/2018	SeqNo: <b>2893732</b>	
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LowLimit F	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Phenol	2.290	1.0 6.000	0	38.2	24	120		
Surr: 1,2-Dichlorobenzene-d4	0.780	1.000		78.0	16	120		
Surr: 2-Fluorobiphenyl	0.810	1.000		81.0	25	120		
Surr: 4-Terphenyl-d14	1.070	1.000		107	46	132		
Surr: Phenol-d5	0.400	1.000		40.0	15	120		
Sample ID MB-66356	SampType: MBLK	TestCode: 8270WATER	_ Units: µg/L		Prep Date:	: 1/12/2018	RunNo: <b>121407</b>	
Client ID: PBW	Batch ID: 66356	TestNo: EPA 8270C	EPA 3510C		Analysis Date:	: 1/14/2018	SeqNo: <b>2893733</b>	
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LowLimit F	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Phenol	ND	1.0						
Surr: 1,2-Dichlorobenzene-d4	0.660	1.000		66.0	16	120		
Surr: 2-Fluorobiphenyl	0.750	1.000		75.0	25	120		
Surr: 4-Terphenyl-d14	0.960	1.000		96.0	46	132		
Surr: Phenol-d5	0.320	1.000		32.0	15	120		
Sample ID N027903-001D-MS	SampType: MS	TestCode: 8270WATER	_ Units: µg/L		Prep Date:	1/12/2018	RunNo: <b>121407</b>	
Client ID: ZZZZZZ	Batch ID: 66356	TestNo: EPA 8270C	EPA 3510C		Analysis Date:	1/15/2018	SeqNo: <b>2893735</b>	
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LowLimit F	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Phenol	2.366	1.1 6.452	0	36.7	24	120		
Surr: 1,2-Dichlorobenzene-d4	0.785	1.075		73.0	16	120		
Surr: 2-Fluorobiphenyl	0.742	1.075		69.0	25	120		
Surr: 4-Terphenyl-d14	1.065	1.075		99.0	46	132		
Surr: Phenol-d5	0.376	1.075		35.0	15	120		

#### Qualifiers:

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

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ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 8270WATER\_SIMEXT

Sample ID N027903-001D-MSD	SampType: MSD	TestCod	le: 8270WAT	ER_ Units: μg/L		Prep Da	te: <b>1/12/2</b> 0	)18	RunNo: 12		
Client ID: ZZZZZZ	Batch ID: 66356	TestN	lo: EPA 8270	C EPA 3510C		Analysis Da	te: 1/15/20	)18	SeqNo: <b>28</b> 9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	2.186	1.0	6.186	0	35.3	24	120	2.366	7.91	20	
Surr: 1,2-Dichlorobenzene-d4	0.732		1.031		71.0	16	120		0		
Surr: 2-Fluorobiphenyl	0.753		1.031		73.0	25	120		0		
Surr: 4-Terphenyl-d14	1.041		1.031		101	46	132		0		
Surr: Phenol-d5	0.361		1.031		35.0	15	120		0		

#### Qualifiers:



Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

ELAP Cert 2921

**EPA ID CA01638** 

CALIFORNIA | P:562.219.7435 F:562.219.7436 ASSET LABORATORIES 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 Serving Clients with Passion and Professionalism"

NEVADA | P:702.307.2659 F:702.307.269 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046 RPD outside accepted recovery limits Calculations are based on raw values

Asset Laboratories
3151 W. Post Road
Las Vegas, NV 89118
Tel: 702-307-2659 Fax: 702-307-2691
Marlon Cartin (marlon@assetlaboratories.com)

CHAIN OF CUSTODY RECORD

DATE: PAGE:

Section A	A Client Information:		Section B Required Project	ct Inforn	nation:				ection (													Section							
Company:		,	Report To:		Davis				tention		_	Defiba	ugh - Re	f. AFE#	81195	_					•	Sample	er Inform er	James Dy	•				
Address:	1100 Town & Country Road		Сору То:	Stev	e Defibac	ugh		Co	mpany		Kinde	r Morga	n Energ	gy Parti	ners		-					Name: Sample			//	1		_	
Email To:	Orange, CA 92868 steve_defibaugh@kindermo	organ.com	Purchase Order	er No.:					me: dress:			Town &										Signati	ure:	- jon	-1				
Phone: 7	eric.davis@ch2m.com	4-560-4801			cron	Manuall					Orang	e, CA 9	2868	y modu						8		Sample Date:			1/9/1	8			
none. 7	14-300-4002	-700-4801	Project Name:	8	SFPP	Norwalk			L Projec mager:		Marlo	n Cartin	1									1	/						
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	SAMPLE ID	LOCATION/ DESC	RIPTION	1	AB			S2		MTBE, TBA (		(801	17		(80	M254		SM.	0										
				1	(G=GRAB			AINE		3		TPH	g (24		M521	s) spi		as N)	(SM2540F)										
				1	1			LNOS	est	1,2-1	58)	, Tota	(8) H (1)		S)	130B	(999)	nagen	ds (SA	16									
				×	E TYPE			TOTAL # OF CONTAINERS	Analysis Tesi	BTEX, 1,1-DCA, 1,2-DCA,	TPH-gas (8015B)	FPH-d, TPH-oil, Total TPH (8015B)	Cu, Pb, Zn (200.8); Hg (245.1)	(520)	BOD (@ 20 deg. C)(SM5210B)	Suspended Solids (SM29	Oil & Grease (1664)	Ammonia Nitrogen (as N) (SM-4500	Solids										
ITEM #				MATRIX	SAMPLE			TAL	lualy	X 1,1	-gas	-d, T	Pb, Zı	Phenol (8270)	(0)	al Sus	& Gre	nonis	ettleable										
_				_		DATE	TIME	-	_ ^		-	-			-	Total		-	+ 01							Con	nments		
	FF-01-09	EFFLUENT		ww	V G	1/9/18	1250	19		X	Х	Х	X	X	X	X	X	X	X					N0279	903-01	17 17800			
3		-		$\vdash$	+-		-		-						-	<u> </u>							_	Report metals, T	PH and VOC	preliminary data	on 24-hr TAT		
4				+	1			-	-						-	_		_		-	-		_	Report total Xyle	nes				
5				+	+				- 3						-	-			-	-	-	-	-						
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	my W	1/9/18	13.	3C	)	_	X			_		1 I	71	10	,	[	T	/			B = 24								
//	y (Signature and finted Name):	Date / Time			ľ	Relinquished by	y ligrature and I	Printed Name):		11111111	MINISTER D	. 1	Date / T	ime		7.175.00				525-536	C = 48								
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inquished by	(Sanature and Printed Name):	Qate / Time	0		P	elinguished by	y (Signature and F	Printed Name):	1		/		Date Ti	ime	12	1	-				E = 10	Workd	ays						
/	' /					1							2		8	. 1	1 3	2		TATS	Starte at 8	AM the	followi	iing day if samples		.1			
	· ·					4														"	a. c			0 PM.	ceived aite	`l			
										T	Matrix:					_	-			Prese	ervatives	:				Container Typ	P:		
										,	W = Wa	ater	V	VW = 1	Waste	water				H = H			= HNO	)3   S = H	2504	T = Tube	V = VOA	P = Pint	A = Amber
											O = Oil		-	= Pro			S = Soil				n(AC)2		= NaO		a2S2O3	J = Jar	B = Tedlar	G = Glass	- Amber
										d	Others/	/Specify	y:							-	rs/Specif					M = Metal	P = Plastic	C = Can	

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

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On:	1/9/2018				Workorder:	N027903		
Rep sample Temp (Deg C):	2.6				IR Gun ID:	2		
Temp Blank:	<b>✓</b> Yes	☐ No						
Carrier name:	Golden Stat	te Overnight						
Last 4 digits of Tracking No.:	7656			Packin	g Material Used:	Bubble Wrap		
Cooling process:	<b>✓</b> Ice	☐ Ice Pack	Dry Ice	Other	■ None			
		Sa	mple Receip	ot Checklis	st			
1. Shipping container/cooler in g	good condition				Yes 🗹	No 🗆	Not Present	
2. Custody seals intact, signed,	dated on ship	pping container/c	ooler?		Yes	No 🗆	Not Present	<b>✓</b>
3. Custody seals intact on samp	ole bottles?				Yes	No 🗆	Not Present	$\checkmark$
4. Chain of custody present?					Yes 🗹	No 🗆		
5. Sampler's name present in C	OC?				Yes 🗹	No 🗌		
6. Chain of custody signed whe	n relinquished	and received?			Yes 🗸	No $\square$		
7. Chain of custody agrees with	sample labels	s?			Yes 🗸	No 🗌		
8. Samples in proper container/l	oottle?				Yes 🗸	No $\square$		
9. Sample containers intact?					Yes 🗸	No $\square$		
10. Sufficient sample volume fo	r indicated tes	st?			Yes 🗸	No $\square$		
11. All samples received within	holding time?				Yes 🗸	No $\square$		
12. Temperature of rep sample	or Temp Blan	k within acceptab	le limit?		Yes 🗸	No 🗆	NA	
13. Water - VOA vials have zero	headspace?				Yes 🗸	No $\square$	NA	
14. Water - pH acceptable upor	•				Yes 🗸	No $\square$	NA	
Example: pH > 12 for (CN					v	$\Box$		
15. Did the bottle labels indicate	•				Yes 🗹	No 🗆	NA	
<ol><li>Were there Non-Conforman</li><li>W</li></ol>	ce issues at lo as Client notif	•			Yes □ Yes □	No □ No □	NA NA	<b>✓</b>
Comments:								

YR 41/10/2018

11/10/2018

# **WORK ORDER Summary**

10-Jan-18

WorkOrder: N027903

Client ID: CH2HI03

**Project:** SFPP Norwalk

QC Level: RTNE Date Received: 1/9/2018

**Comments:** Report metals, TPH and VOC preliminary data on 24-hr TAT. Report Total Xylenes.

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N027903-001A	EFF-01-09	1/9/2018 12:50:00 PM	1/10/2018	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID				VW
			1/10/2018		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS				VW
N027903-001B			1/10/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS				WW
			1/10/2018		EPA 8015B	TPH EXTRACTABLE BY GC/FID				WW
			1/10/2018		EPA 8015B	Total TPH				ww
N027903-001C			1/10/2018			AQPREP TOTAL METALS: ICP, FLAA				ww
			1/10/2018		EPA 200.8	TOTAL METALS BY ICPMS				ww
			1/10/2018		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE				WW
			1/10/2018			MERCURY PREP				ww
N027903-001D			1/16/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM				WW
			1/16/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				WW
N027903-001E			1/16/2018		SM 5210 B	BIOCHEMICAL OXYGEN DEMAND			<b>✓</b>	SUB
N027903-001F			1/16/2018		SM2540D	TOTAL NON-FILTERABLE RESIDUE				LSR
			1/16/2018			Total Suspended Solids Prep				LSR
			1/16/2018		SM 2130B	TURBIDITY				LSR
N027903-001G			1/16/2018			Oil and Grease Sample Prep				ww
			1/16/2018		EPA 1664 _HEM	Hexane Extractable Material (HEM)				ww
N027903-001H			1/16/2018		SM4500-NH3C	AMMONIA-N			<b>✓</b>	SUB
N027903-001I			1/16/2018		SM2540F	SETTLEABLE MATTER				ww
			1/16/2018			Setteable Matter				ww
-										

**WORK ORDER Summary** 

10-Jan-18

WorkOrder: N027903

**Client ID:** CH2HI03

**Project:** 

SFPP Norwalk QC Level: RTNE Date Received: 1/9/2018

**Comments:** Report metals, TPH and VOC preliminary data on 24-hr TAT. Report Total Xylenes.

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld MS Sub Storage
N027903-002A	FOLDER	1/10/2018	1/10/2018		Folder	Folder	LAB
			1/10/2018		Folder	Folder	LAB



800-322-5555 www.gso.com •

**CPS** 

Ship From

ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, NV 89118

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

**Delivery Instructions:** HOLD FOR PICKUP

Signature Type: NOT REQUIRED

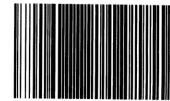
3 of 6

Tracking #: 539037656

LVS

**LAS VEGAS** 

C89102A



77723796

Print Date: 1/9/2018 6:58 PM

Package 3 of 6

#### LABEL INSTRUCTIONS:

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

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.

Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

2.6°C



Date of Report: 01/18/2018

Molky Brar

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

Client Project: N027903
BCL Project: Cerritos
BCL Work Order: 1801069
Invoice ID: B291510

Enclosed are the results of analyses for samples received by the laboratory on 1/10/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval

Client Service Rep

Stuart Buttram
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



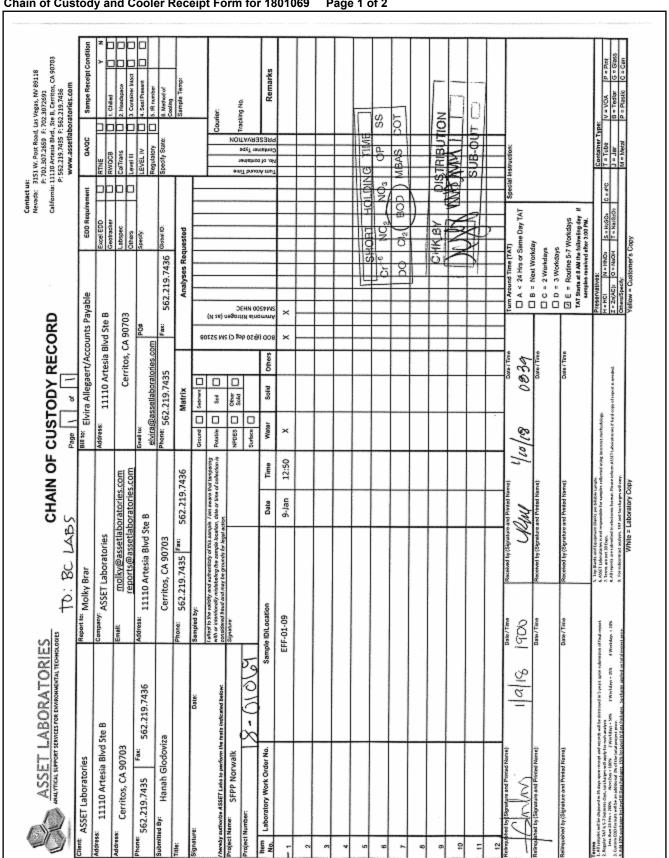
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Quality Control Reports	
Water Analysis (General Chemistry)	
Method Blank Analysis	7
Laboratory Control Sample	
Precision and Accuracy	9
Notes	
Notes and Definitions	10

Report ID: 1000697097



Chain of Custody and Cooler Receipt Form for 1801069 Page 1 of 2



Page 3 of 10

4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Report ID: 1000697097



Chain of Custody and Cooler Receipt Form for 1801069 Page 2 of 2

BC LABORATORIES INC.  Submission #: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		C	OOLER	RECEIPT	FORM 4			Page	0	(
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SHIPPING INFORM	ATION		_	SI	HIPPING	CONTAIN	IER		FREE LIQ	
Fed Ex □ UPS □ Ontrac □ BC Lab Field Service □ Other □	Hand	Delivery		Ice Che	st   (Spec	None 🗆	BOX []	1	/es □ N /Wi/:	
BC Lab Fleid Service C. Other	Zobecny	1_0(,)		Ottie	i Li (Spei	OH Y 1			(Vy /	5
Refrigerant: Ice Blue Ice	None		Other 🗆	Comm	ents:		-		',	
		THE RESERVE OF THE PERSON NAMED IN COLUMN 1								
Custody Seals in E Chast U	Containe	rs.©] 3 No □	None	Com	ments:					
							ion(s) mate			
COC Received Emis	slvity: D	<u>a_</u> (	Container:	pe	Thermon	eter ID: 🚺	1274	Date/Tin	10 DI 10	18 °4
YES □ NO Ten	maraturat	0	· 01	°C /	(0)	3.6	°c	Analyst	init Yor (	9 mg
T len	iperature:	(A) A	- 1			-		Amayet	inito part	7 1
SAMPLE CONTAINERS					SAMPLE	NUMBERS	-			
SAMPLE CONTAINENS	1	2	3	4	5	6	7	8		10
QT PE UNFRES	A									
40z/8oz/16oz PE UNPRES										
20x Cr <sup>46</sup>										
OT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 402 / 802 / 1602										
PT CYANIDE									ļ	
PT NITROGEN FORMS	_3_									
PT TOTAL SULFIDE		,								
200. NITRATE / NITRITE .										
PT TOTAL ORGANIC CARBON .										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS								***************************************		
60ml VOA VIAL TRAVEL BLANK										
60ml VOA VIAL										
OT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 mt VOA VIAL:- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150 .										
QT EPA 525										
OT EPA 525 TRAVEL BLANK				and description						
40ml RPA 547										
40ml EPA 531-J										
Box EPA 548										
OT EPA 549								-		
OT EPA 8015M			-							
OT EPA \$270						-				
002/1602/3202 AMBRR		-								<u> </u>
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Report ID: 1000697097



3151-3153 W. Post Rd Las Vegas, NV 89118

Reported: 01/18/2018 14:40

Project: Cerritos Project Number: N027903 Project Manager: Molky Brar

# **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 1801069-01 01/10/2018 08:39 **COC Number:** Receive Date: **Project Number:** Sampling Date: 01/09/2018 12:50 Sample Depth: **Sampling Location:** Sampling Point: EFF-01-09 Lab Matrix: Water Sampled By: Sample Type: Water

Page 5 of 10 Report ID: 1000697097



Reported: 01/18/2018 14:40

Project: Cerritos Project Number: N027903 Project Manager: Molky Brar

# Water Analysis (General Chemistry)

BCL Sample ID:	1801069-01	Client Sampl	le Name:	EFF-01-0	EFF-01-09, 1/9/2018 12:50:00PM									
Constituent		Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #					
Ammonia as N (Distill	ed)	ND	mg/L	0.20	0.078	SM-4500-NH3G	ND		1					
Biochemical Oxygen Seeded	Demand -	1.8	mg/L	1.5	1.5	SM17-5210B			2					

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	SM-4500-NH3G	01/16/18 08:30	01/17/18 09:50	JMH	SC-1	1	B002030
2	SM17-5210B	01/11/18 06:40	01/11/18 06:40	HPR	YSIPRO	1.525	B002156

Page 6 of 10 Report ID: 1000697097



**Reported:** 01/18/2018 14:40

Project: Cerritos
Project Number: N027903
Project Manager: Molky Brar

# Water Analysis (General Chemistry)

### **Quality Control Report - Method Blank Analysis**

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B002030						
Ammonia as N (Distilled)	B002030-BLK1	ND	mg/L	0.20	0.078	
QC Batch ID: B002156						
Biochemical Oxygen Demand - Seeded	B002156-BLK1	ND	mg/L	1.0	1.0	

Report ID: 1000697097 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 7 of 10



Reported: 01/18/2018 14:40

Project: Cerritos
Project Number: N027903
Project Manager: Molky Brar

# Water Analysis (General Chemistry)

### **Quality Control Report - Laboratory Control Sample**

								Control L	imits	
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals
QC Batch ID: B002030										
Ammonia as N (Distilled)	B002030-BS1	LCS	0.95090	1.0000	mg/L	95.1		85 - 115		
QC Batch ID: B002156										
Biochemical Oxygen Demand - Seeded	B002156-BS1	LCS	203.59	198.00	mg/L	103		85 - 115		

Report ID: 1000697097 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 8 of 10



Reported: 01/18/2018 14:40

Project: Cerritos
Project Number: N027903
Project Manager: Molky Brar

# **Water Analysis (General Chemistry)**

### **Quality Control Report - Precision & Accuracy**

									Cont	rol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Туре	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: B002030	Use	d client samp	le: N								
Ammonia as N (Distilled)	DUP	1801538-02	0.17190	0.16500		mg/L	4.1		20		J
	MS	1801538-02	0.17190	1.0364	1.0000	mg/L		86.4		80 - 120	
	MSD	1801538-02	0.17190	1.0809	1.0000	mg/L	4.2	90.9	20	80 - 120	
QC Batch ID: B002156	Use	d client samp	ole: N								
Biochemical Oxygen Demand - Seeded	DUP	1801063-01	15.819	14.701		mg/L	7.3		20		

Report ID: 1000697097 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 9 of 10



**ASSET Laboratories** Reported: 01/18/2018 14:40 3151-3153 W. Post Rd Project: Cerritos

Las Vegas, NV 89118 Project Number: N027903 Project Manager: Molky Bran

#### **Notes And Definitions**

Estimated Value (CLP Flag)

MDL Method Detection Limit ND Analyte Not Detected PQL Practical Quantitation Limit

Page 10 of 10 Report ID: 1000697097



Date of Report: 01/19/2018

Marlon Cartin

**ASSET Laboratories** 3151-3153 W. Post Rd Las Vegas, NV 89118

Client Project: N027903 CH2MHILL **BCL Project:** BCL Work Order: 1801069 B291510 Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 1/10/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000697097

Sincerely,

Contact Person: Vanessa Sandoval

Client Service Rep

Stuart Buttram **Technical Director** 

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101



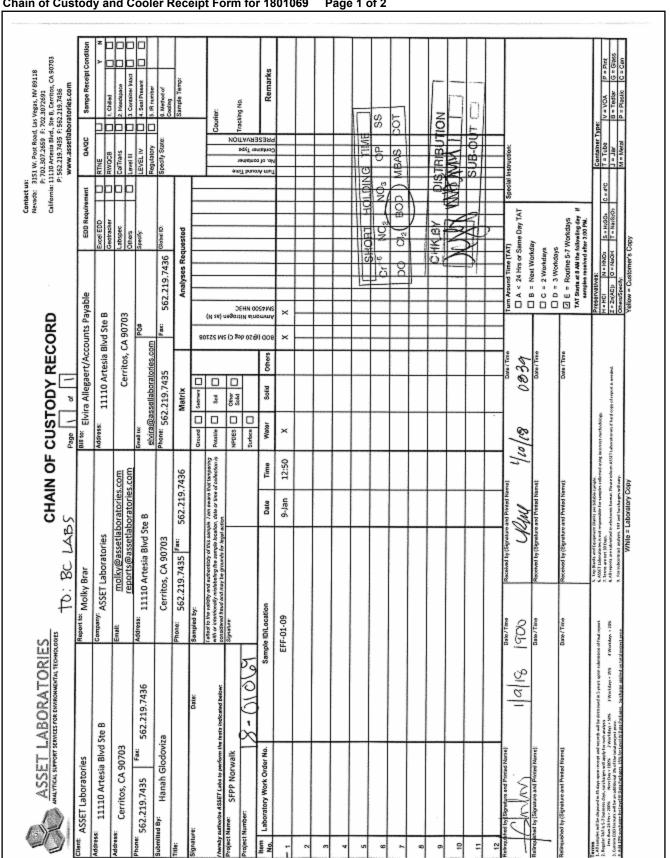
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Report ID: 1000697699



Chain of Custody and Cooler Receipt Form for 1801069 Page 1 of 2



4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Report ID: 1000697699 Page 3 of 10



Chain of Custody and Cooler Receipt Form for 1801069 Page 2 of 2

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Fed Ex □ UPS □ Ontrac □ BC Lab Field Service □ Other □	Hand	Delivery		Ice Che	st   (Spec	None 🗆	BOX []	1	/es □ N /Wi/:	
BC Lab Fleid Service C. Other	Johecny	1_0(,)		Ottie	i Li (Spei	OH Y 1			(Vy /	5
Refrigerant: Ice Blue Ice	None		Other 🗆	Comm	ents:		-		',	
		THE RESERVE OF THE PERSON NAMED IN COLUMN 1								
Custody Seals in E Chast U	Containe	rs.©] 3 No □	None	Com	ments:					
							ion(s) mate			
COC Received Emis	slvity: D	<u>a_</u> (	Container:	pe	Thermon	eter ID: 🚺	1274	Date/Tin	10 DI 10	18 °4
YES □ NO Ten	maraturat	0	$\cdot a$	°C /	(0)	3.6	°c	Analyst	init Yor (	9 mg
T len	iperature:	(A) A	- 1			-		Amayet	inito part	7 1
SAMPLE CONTAINERS					SAMPLE	NUMBERS	-			
SAMPLE CONTAINENS	1	2	3	4	5	6	7	8		10
QT PE UNFRES	A									
40z/8oz/16oz PE UNPRES										
20x Cr <sup>46</sup>										
OT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 402 / 802 / 1602										
PT CYANIDE									ļ	
PT NITROGEN FORMS	_3_									
PT TOTAL SULFIDE		,								
200. NITRATE / NITRITE .										
PT TOTAL ORGANIC CARBON .										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS								************		
60ml VOA VIAL TRAVEL BLANK										
60ml VOA VIAL										
OT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 mt VOA VIAL:- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150 .										
QT EPA 525										
OT EPA 525 TRAVEL BLANK				and description						
40ml RPA 547										
40ml EPA 531-J										
Box EPA 548										
OT EPA 549								-		
OT EPA 8015M			-							
OT EPA \$270						-				
002/1602/3202 AMBRR		-								<u> </u>
loz / 16at / 32oz JAR										
OIL SLEEVE										<u> </u>
						-	-			<del> </del>
PCB VIAL										-
PLASTIC BAG			-							
TEDLAR BAG										
FERROUS IRON										
RNCORE										
MART KIT										
SUMMA CANISTER										
		CONTROL OF THE PARTY OF THE PAR			-	7			-	-

Report ID: 1000697699



Reported: 01/19/2018 14:00

Project: CH2MHILL
Project Number: N027903

Project Manager: Marlon Cartin

# **Laboratory / Client Sample Cross Reference**

Laboratory **Client Sample Information** 1801069-01 01/10/2018 08:39 **COC Number:** Receive Date: **Project Number:** Sampling Date: 01/09/2018 12:50 Sample Depth: **Sampling Location:** Sampling Point: EFF-01-09 Lab Matrix: Water Sampled By: Sample Type: Water

Report ID: 1000697699 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 5 of 10



Reported: 01/19/2018 14:00

Project: CH2MHILL Project Number: N027903 Project Manager: Marlon Cartin

# Water Analysis (General Chemistry)

BCL Sample ID:	1801069-01	Client Sampl	le Name:	EFF-01-0	9, 1/9/2018	3 12:50:00PM			
Constituent		Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Ammonia as N (Distille	ed)	ND	mg/L	0.20		SM-4500-NH3G	ND		1
Biochemical Oxygen Seeded	Demand -	1.8	mg/L	1.5		SM17-5210B			2

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	SM-4500-NH3G	01/16/18 08:30	01/17/18 09:50	JMH	SC-1	1	B002030
2	SM17-5210B	01/11/18 06:40	01/11/18 06:40	HPR	YSIPRO	1.525	B002156

Page 6 of 10 Report ID: 1000697699



**Reported:** 01/19/2018 14:00

Project Number: N027903
Project Manager: Marlon Cartin

# Water Analysis (General Chemistry)

### **Quality Control Report - Method Blank Analysis**

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B002030						
Ammonia as N (Distilled)	B002030-BLK1	ND	mg/L	0.20		
QC Batch ID: B002156						
Biochemical Oxygen Demand - Seeded	B002156-BLK1	ND	mg/L	1.0		

Report ID: 1000697699 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 7 of 10



**Reported:** 01/19/2018 14:00

Project: CH2MHILL
Project Number: N027903
Project Manager: Marlon Cartin

# Water Analysis (General Chemistry)

### **Quality Control Report - Laboratory Control Sample**

								Control L	<u>imits</u>	1 -1-	
Constituent	QC Sample ID	Туре	Result	Spike Level	Units	Percent Recovery	RPD	Percent Recovery	RPD	Lab Quals	
QC Batch ID: B002030											
Ammonia as N (Distilled)	B002030-BS1	LCS	0.95090	1.0000	mg/L	95.1		85 - 115			
QC Batch ID: B002156											_
Biochemical Oxygen Demand - Seeded	B002156-BS1	LCS	203.59	198.00	mg/L	103		85 - 115			

Report ID: 1000697699 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 8 of 10



**Reported:** 01/19/2018 14:00

Project: CH2MHILL
Project Number: N027903
Project Manager: Marlon Cartin

# **Water Analysis (General Chemistry)**

### **Quality Control Report - Precision & Accuracy**

									Cont	trol Limits	
		Source	Source		Spike			Percent		Percent	Lab
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals
QC Batch ID: B002030	Use	d client samp	le: N								
Ammonia as N (Distilled)	DUP	1801538-02	0.17190	ND		mg/L			20		
	MS	1801538-02	0.17190	1.0364	1.0000	mg/L		86.4		80 - 120	
	MSD	1801538-02	0.17190	1.0809	1.0000	mg/L	4.2	90.9	20	80 - 120	
QC Batch ID: B002156	Use	d client samp	ole: N								
Biochemical Oxygen Demand - Seeded	DUP	1801063-01	15.819	14.701		mg/L	7.3		20		

Report ID: 1000697699 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 9 of 10



Reported: 01/19/2018 14:00

Project: CH2MHILL

Project Number: N027903 Project Manager: Marlon Cartin

#### **Notes And Definitions**

**ASSET Laboratories** 

3151-3153 W. Post Rd

Las Vegas, NV 89118

MDL Method Detection Limit ND Analyte Not Detected

PQL Practical Quantitation Limit

Page 10 of 10 Report ID: 1000697699

February 13, 2018

Eric Davis CH2MHill

1000 Wilshire Blvd.

Los Angeles, CA 90017

TEL:

FAX: Workorder No.: N028452

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on February 06, 2018 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,

Quennie Manimtim

Laboratory Director

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

CLIENT: CH2MHill
Project: SFPP Norwalk

Lab Order: N028452

# CASE NARRATIVE

Date: 13-Feb-18

#### SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

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

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

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:

Laboratory Control Sample (LCS), Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries biased high for Tert-Butanol. Sample result was non-detect (ND) for this analyte therefore reanalysis of the sample was not necessary.

CLIENT: CH2MHill
Project: SFPP Norwalk

Lab Order: N028452

Contract No:

Work	Order	Sample	<b>Summary</b>
110112	Oluci	Dampic	Dummar y

**Date:** 13-Feb-18

Lab Sample ID Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N028452-001A EFF-02-06	Wastewater	2/6/2018	2/6/2018	2/13/2018
N028452-001B EFF-02-06	Wastewater	2/6/2018	2/6/2018	2/13/2018
N028452-001C EFF-02-06	Wastewater	2/6/2018	2/6/2018	2/13/2018
N028452-001D EFF-02-06	Wastewater	2/6/2018	2/6/2018	2/13/2018

### ANALYTICAL RESULTS

Print Date: 13-Feb-18

### **ASSET Laboratories**

 CLIENT:
 CH2MHill
 Client Sample ID:
 EFF-02-06

 Lab Order:
 N028452
 Collection Date:
 2/6/2018

Project: SFPP Norwalk Matrix: WASTEWATER

nalyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMP	POUNDS BY GC/ EPA 3510C	MS	EPA	8270C			
RunID: NV00922-MS9_180209A	QC Batch: 66	746		Prepl	Date	2/9/2018	Analyst: MJN
Phenol	ND	0.33	1.0		μg/L	1	2/9/2018 05:01 PM
Surr: 1,2-Dichlorobenzene-d4	66.0	0	16-120		%REC	1	2/9/2018 05:01 PM
Surr: 2-Fluorobiphenyl	68.0	0	25-120		%REC	1	2/9/2018 05:01 PM
Surr: 4-Terphenyl-d14	91.0	0	46-132		%REC	1	2/9/2018 05:01 PM
Surr: Phenol-d5	26.0	0	15-120		%REC	1	2/9/2018 05:01 PM
OLATILE ORGANIC COMPOUN	IDS BY GC/MS						
			EPA	8260B			
RunID: NV00922-MS5_180207A	QC Batch: P1	8VW018		Prepl	Date		Analyst: QBN
1,1-Dichloroethane	ND	0.45	0.50		ug/L	1	2/7/2018 01:28 PM
1,2-Dichloroethane	ND	0.29	0.50		ug/L	1	2/7/2018 01:28 PM
Benzene	ND	0.34	1.0		ug/L	1	2/7/2018 01:28 PI
Ethylbenzene	ND	0.31	1.0		ug/L	1	2/7/2018 01:28 Pf
m,p-Xylene	ND	0.23	1.0		ug/L	1	2/7/2018 01:28 Pf
MTBE	ND	0.34	1.0		ug/L	1	2/7/2018 01:28 Pf
o-Xylene	ND	0.31	1.0		ug/L	1	2/7/2018 01:28 PM
Tert-Butanol	ND	2.4	5.0		ug/L	1	2/7/2018 01:28 PM
Toluene	ND	0.46	2.0		ug/L	1	2/7/2018 01:28 PM
Xylenes, Total	ND	1.5	2.0		ug/L	1	2/7/2018 01:28 PM
Surr: 1,2-Dichloroethane-d4	98.6	0	72-119		%REC	1	2/7/2018 01:28 PM
Surr: 4-Bromofluorobenzene	93.6	0	76-119		%REC	1	2/7/2018 01:28 PM
Surr: Dibromofluoromethane	97.5	0	85-115		%REC	1	2/7/2018 01:28 PM
Surr: Toluene-d8	97.2	0	81-120		%REC	1	2/7/2018 01:28 PM
TPH EXTRACTABLE BY GC/FID	FD4 05400		<b>504</b>	00455			
RunID: NV00922-GC1_180207A	<b>EPA 3510C</b> QC Batch: <b>66</b>	709	EPA	. <b>8015B</b> Prepl	Dato	2/7/2018	Analyst CC
			20	гтері			Analyst: <b>SS</b>
TPH-Diesel (C13-C22)	ND	16 14	26		ug/L	1 1	2/7/2018 04:58 PN
TPH-Oil (C23-C36)	14	0	26	J	ug/L	1	2/7/2018 04:58 PN
Surr: Octacosane	107 104	0	26-152 57-132		%REC %REC	1	2/7/2018 04:58 PM 2/7/2018 04:58 PM
Surr: p-Terphenyl		U	57-132		%KEC	ı	2/1/2010 04.50 Pr
GASOLINE RANGE ORGANICS	BY GC/FID		EPA	8015B			
	00 D-t-b: <b>E</b> 4	0) (14/0 4 0			<b>5</b> -4-		
RunID: NV00922-GC4_180207A	QC Batch: E1	8VW013		Prepl	Jate		Analyst: QBN

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: 13-Feb-18

### **ASSET Laboratories**

**CLIENT:** 

Lab Order:

 CH2MHill
 Client Sample ID: EFF-02-06

 N028452
 Collection Date: 2/6/2018

Project: SFPP Norwalk Matrix: WASTEWATER

**Lab ID:** N028452-001

Analyses	1	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
GASOLI	NE RANGE ORGANICS	BY GC/FID						
				EPA	8015B			
RunID:	NV00922-GC4_180207A	QC Batch: E1	8VW013		PrepD	Date		Analyst: QBM
Surr	: Chlorobenzene - d5	112	0	74-138		%REC	1	2/7/2018 01:27 PM
MERCU	RY BY COLD VAPOR TE	CHNIQUE						
				EPA	245.1			
RunID:	NV00922-AA1_180207A	QC Batch: 66	701		PrepD	Date	2/7/2018	Analyst: MG
Mercur	у	ND	0.018	0.050		μg/L	1	2/7/2018 11:46 AM
TOTAL I	METALS BY ICPMS							
				EPA	200.8			
RunID:	NV00922-ICP7_180207A	QC Batch: 667	702		PrepD	Date	2/7/2018	Analyst: CEI
Copper	r	ND	0.26	0.50		μg/L	1	2/7/2018 12:13 PM
Lead		ND	0.13	0.50		μg/L	1	2/7/2018 12:13 PM
Zinc		1.1	0.27	1.0		μg/L	1	2/7/2018 12:13 PM
TOTAL	TPH							
				EPA	8015B			
RunID:	NV00922-GC1_180207A	QC Batch: R1	21910		PrepD	Date		Analyst: SS
Total T	PH	ND	16	50		ug/L	1	2/7/2018

 $\begin{tabular}{ll} \textbf{Qualifiers:} & B & Analyte detected in the associated Method Blank \\ \end{tabular}$ 

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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**CLIENT:** CH2MHill Work Order: N028452

ANALYTICAL QC SUMMARY REPORT

Project: SFPP Norwalk TestCode: 200.8\_W\_SFPP

Sample ID	MB-66702	SampType: MBLK	TestCod	de: <b>200.8_W</b> _	SF Units: µg/L		Prep Date	e: <b>2/7/20</b> 1	8	RunNo: 12	1893	
Client ID:	PBW	Batch ID: 66702	TestN	lo: <b>EPA 200.8</b>	3		Analysis Dat	e: <b>2/7/20</b> 1	8	SeqNo: <b>29</b> 2	22539	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	0.50									
Lead		ND	0.50									
Zinc		ND	1.0									
Sample ID	N028452-001C-DUP	SampType: <b>DUP</b>	TestCoo	de: <b>200.8_W</b> _	SF Units: µg/L		Prep Date	e: <b>2/7/20</b> 1	8	RunNo: 12	1893	
Client ID:	ZZZZZZ	Batch ID: 66702	TestNo: <b>EPA 200.8</b>				Analysis Dat	e: <b>2/7/20</b> 1	8	SeqNo: 2922543		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	0.50						0	0	20	
Lead		ND	0.50						0	0	20	
Zinc		0.718	1.0						1.069	0	20	J
01- 15	N028452-001C-MS	SampType: MS	TestCode: 200.8_W_SF Units: µg/L			Prep Date: 2/7/2018				RunNo: <b>121893</b>		
Sample ID	NU26452-001C-WIS	Samprype. W.S	1631000	<b></b>	O. O.Mo. <b>µg/</b> 2		1 Top Dat	o. <b></b> /// <b>_o</b>		11. 11. 12. 12		
Client ID:		Batch ID: 66702		lo: <b>EPA 200.8</b>			Analysis Dat			SeqNo: 292		
		. ,,		lo: <b>EPA 200.</b> 8		%REC	Analysis Dat	e: <b>2/7/20</b> 1			22545	Qual
Client ID:		Batch ID: <b>66702</b>	TestN	lo: <b>EPA 200.</b> 8	3		Analysis Dat	e: <b>2/7/20</b> 1	8	SeqNo: 292	22545	Qual
Client ID: Analyte		Batch ID: 66702	TestN PQL	No: EPA 200.8	SPK Ref Val	%REC	Analysis Date	e: <b>2/7/20</b> 1 HighLimit	8	SeqNo: 292	22545	Qual
Client ID: Analyte Copper		Batch ID: <b>66702</b> Result  7.603	PQL 0.50	SPK value	SPK Ref Val	%REC 76.0	Analysis Date  LowLimit  75	e: <b>2/7/201</b> HighLimit	8	SeqNo: 292	22545	Qual
Client ID: Analyte Copper Lead Zinc		Result 7.603 10.203 110.056	PQL 0.50 0.50 1.0	SPK value 10.00 10.00	SPK Ref Val 0 0 1.069	%REC 76.0 102	Analysis Date  LowLimit  75 75 75	e: <b>2/7/20</b> 1 HighLimit 125 125	8 RPD Ref Val	SeqNo: 292	RPDLimit	Qual
Client ID: Analyte Copper Lead Zinc	ZZZZZZ  N028452-001C-MSD	Result 7.603 10.203 110.056	PQL 0.50 0.50 1.0	SPK value 10.00 10.00 100.0	SPK Ref Val  0 0 1.069  SF Units: μg/L	%REC 76.0 102 109	Analysis Date  LowLimit  75 75 75	e: <b>2/7/201</b> HighLimit 125 125 125 e: <b>2/7/201</b>	8 RPD Ref Val	SeqNo: 29: %RPD	RPDLimit	Qual
Client ID: Analyte Copper Lead Zinc Sample ID	ZZZZZZ  N028452-001C-MSD	Result 7.603 10.203 110.056  SampType: MSD	PQL 0.50 0.50 1.0	SPK value  10.00 10.00 100.00 de: 200.8_W_	SPK Ref Val  0 0 1.069  SF Units: μg/L	%REC 76.0 102 109	Analysis Date  LowLimit  75  75  75  Prep Date  Analysis Date	e: 2/7/201  HighLimit  125 125 125 e: 2/7/201 e: 2/7/201	8 RPD Ref Val	SeqNo: 29: %RPD	RPDLimit	Qual
Client ID: Analyte Copper Lead Zinc Sample ID Client ID:	ZZZZZZ  N028452-001C-MSD	Result 7.603 10.203 110.056  SampType: MSD Batch ID: 66702	PQL 0.50 0.50 1.0  TestCoc TestN	SPK value  10.00 10.00 100.00 de: 200.8_W_	SPK Ref Val  0 0 1.069  SF Units: μg/L	%REC 76.0 102 109	Analysis Date  LowLimit  75  75  75  Prep Date  Analysis Date	e: 2/7/201  HighLimit  125 125 125 e: 2/7/201 e: 2/7/201	8 RPD Ref Val	SeqNo: 292  %RPD  RunNo: 12  SeqNo: 292	RPDLimit  1893	
Client ID: Analyte Copper Lead Zinc Sample ID Client ID: Analyte	ZZZZZZ  N028452-001C-MSD	Result  7.603 10.203 110.056  SampType: MSD Batch ID: 66702  Result	PQL  0.50 0.50 1.0  TestCoc TestN  PQL	SPK value  10.00 10.00 100.0  de: 200.8_W_ SPK value	SPK Ref Val  0 0 1.069  SF Units: µg/L 3	%REC 76.0 102 109	Analysis Date  LowLimit  75 75 75  Prep Date  Analysis Date  LowLimit	e: 2/7/201  HighLimit  125 125 125  e: 2/7/201  HighLimit	8 RPD Ref Val  8 8 RPD Ref Val	SeqNo: 292  %RPD  RunNo: 12  SeqNo: 292  %RPD	22545  RPDLimit  1893 22546  RPDLimit	
Client ID: Analyte Copper Lead Zinc Sample ID Client ID: Analyte Copper	ZZZZZZ  N028452-001C-MSD	Result  7.603 10.203 110.056  SampType: MSD Batch ID: 66702  Result 7.639	PQL  0.50 0.50 1.0  TestCoc TestN  PQL  0.50	SPK value  10.00 10.00 100.0  de: 200.8_W_ SPK value  SPK value  10.00	SPK Ref Val  0 0 1.069  SF Units: µg/L  SPK Ref Val  0	%REC 76.0 102 109 %REC 76.4	Analysis Date  LowLimit  75 75 75  Prep Date  Analysis Date  LowLimit  75	e: 2/7/201  HighLimit  125 125 125 e: 2/7/201 e: 2/7/201  HighLimit 125	8 RPD Ref Val  8 RPD Ref Val  7.603	SeqNo: 292 %RPD RunNo: 12 SeqNo: 292 %RPD 0.465	22545  RPDLimit  1893 22546  RPDLimit  20	

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out
- NEVADA | P:702.307.2659 F:702.307.269 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046
- CALIFORNIA | P:562.219.7435 F:562.219.7436 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 **EPA ID CA01638**

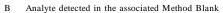
H Holding times for preparation or analysis exceeded RPD outside accepted recovery limits Calculations are based on raw values

**Project:** 

TestCode: 200.8\_W\_SFPP SFPP Norwalk

Sample ID LCS-66702 Client ID: LCSW	SampType: LCS Batch ID: 66702	TestCode: 200.8_W_SF Units: μg/L TestNo: EPA 200.8			•	te: <b>2/7/2018</b> te: <b>2/7/2018</b>	RunNo: <b>121893</b> SeqNo: <b>2922547</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Copper	9.800	0.50	10.00	0	98.0	85	115		
Lead	9.748	0.50	10.00	0	97.5	85	115		
Zinc	90.313	1.0	100.0	0	90.3	85	115		

#### Qualifiers:



Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out



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

ANALYTICAL QC SUMMARY REPORT

ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 245.1\_W\_LL

Sample ID	MB-66701	SampType:	MBLK	TestCod	de: <b>245.1_W</b> _	LL Units: µg/L		Prep Date	: 2/7/2018		RunNo: 12	1896	
Client ID:	PBW	Batch ID:	66701	TestN	lo: <b>EPA 245.</b>	1		Analysis Date	e: 2/7/2018		SeqNo: <b>29</b> 2	22582	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury			ND	0.050									
Sample ID	LCS-66701	SampType:	LCS	TestCod	de: <b>245.1_W</b> _	LL Units: µg/L		Prep Date	2/7/2018		RunNo: 12	1896	
Client ID:	LCSW	Batch ID:	66701	TestN	lo: <b>EPA 245.</b>	1		Analysis Date	: 2/7/2018		SeqNo: <b>29</b> 2	22583	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.242	0.050	2.500	0	89.7	85	115				
Sample ID	N028452-001C-MS	SampType:	мѕ	TestCoo	de: <b>245.1_W</b> _	LL Units: µg/L		Prep Date	: 2/7/2018		RunNo: 12	1896	
Client ID:	ZZZZZZ	Batch ID:	66701	TestN	lo: <b>EPA 245.</b>	1		Analysis Date	2/7/2018		SeqNo: <b>29</b> 2	22584	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.086	0.050	2.500	0	83.4	75	125				
Sample ID	N028452-001C-MSD	SampType:	MSD	TestCod	de: <b>245.1_W</b> _	LL Units: µg/L		Prep Date	e: 2/7/2018		RunNo: 12	1896	
Client ID:	ZZZZZZ	Batch ID:	66701	TestN	lo: <b>EPA 245.</b>	1		Analysis Date	e: 2/7/2018		SeqNo: <b>29</b> 2	22585	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury			2.236	0.050	2.500	0	89.5	75	125	2.086	6.96	20	
Sample ID	N028452-001C-DUP	SampType:	DUP	TestCod	de: <b>245.1_W</b> _	LL Units: µg/L	<u> </u>	Prep Date	: 2/7/2018		RunNo: 12	1896	·
Client ID:	ZZZZZZ	Batch ID:	66701	TestN	lo: <b>EPA 245.</b>	1		Analysis Date	e: 2/7/2018		SeqNo: 292	22587	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury			ND	0.050						0	0	20	

#### Qualifiers:

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

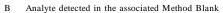
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**Project:** 

TestCode: 8015\_W\_FP\_SFPP SFPP Norwalk

Sample ID MB-66709 Client ID: PBW	SampType: MBLK Batch ID: 66709	TestCode: 8015_W_	_ •		Prep Date: 2/7/2018  Analysis Date: 2/7/2018				RunNo: <b>121910</b> SeqNo: <b>2922812</b>		
Oliche ID. 1 BW	Daten 15. 00703	1031110. LI A 0013	D EI A 33100		7 mary 515 Da	.c. 2/1/201		Ocq140. 232	22012		
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	71.549	80.00		89.4	26	152					
Surr: p-Terphenyl	69.614	80.00		87.0	57	132					

#### Qualifiers:



Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out



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

ANALYTICAL QC SUMMARY REPORT

Project:

TestCode: 8015\_W\_SFPPTOT SFPP Norwalk

Sample ID MB-R121910	SampType: MBLK	TestCode: 8015_W_	SFP Units: ug/L		Prep Da	te:		RunNo: 12	1910	
Client ID: PBW	Batch ID: R121910	TestNo: EPA 801	БВ		Analysis Da	te: <b>2/7/201</b>	8	SeqNo: 292		
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

Analyte detected below quantitation limits Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

E Value above quantitation range

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ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS\_WSFPP

Sample ID E180207LCS Client ID: LCSW	SampType: LCS  Batch ID: E18VW013	TestCode: 8015GAS_W Units: ug/	L Prep Date: Analysis Date: 2/7/2018	RunNo: <b>121904</b> SeqNo: <b>2922744</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	772.000 46530.000	50 1000 0 50000	77.2 67 136 93.1 74 138	
Sample ID E180207MB1 Client ID: PBW	SampType: MBLK Batch ID: E18VW013	TestCode: 8015GAS_W Units: ug/	L Prep Date: Analysis Date: 2/7/2018	RunNo: 121904 SeqNo: 2922745
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5	ND 58331.000	50 50000	117 74 138	
Sample ID N028452-001AMS Client ID: ZZZZZZ	SampType: MS  Batch ID: E18VW013	TestCode: 8015GAS_W Units: ug/ TestNo: EPA 8015B	L Prep Date: Analysis Date: 2/7/2018	RunNo: <b>121904</b> SeqNo: <b>2922747</b>
· '			,	
Client ID: ZZZZZZ	Batch ID: E18VW013	TestNo: EPA 8015B	Analysis Date: 2/7/2018	SeqNo: <b>2922747</b>
Client ID: ZZZZZZ  Analyte  TPH-Gasoline (C4-C12)	Batch ID: <b>E18VW013</b> Result  918.000	TestNo: EPA 8015B           PQL SPK value SPK Ref Val           50         1000         0	Analysis Date: 2/7/2018  %REC LowLimit HighLimit RPD Ref Val  91.8 67 136 107 74 138	SeqNo: <b>2922747</b>
Client ID: ZZZZZZ  Analyte  TPH-Gasoline (C4-C12) Surr: Chlorobenzene - d5  Sample ID N028452-001AMSD	Batch ID: <b>E18VW013</b> Result  918.000 53500.000  SampType: <b>MSD</b>	TestNo: EPA 8015B  PQL	Analysis Date: 2/7/2018    REC   LowLimit   HighLimit   RPD Ref Val	SeqNo: 2922747  %RPD RPDLimit Qual  RunNo: 121904

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- Analyte detected below quantitation limits
- E Value above quantitation range
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- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

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RPD outside accepted recovery limits Calculations are based on raw values

#### **CLIENT:** CH2MHill

Work Order:

N028452

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID P180207LCS	SampType: LCS	TestCo	de: <b>8260_WP</b>	_SF Units: ug/L		Prep Da	te:		RunNo: 12	1906	
Client ID: LCSW	Batch ID: P18VW018	Test	No: <b>EPA 8260</b>	В		Analysis Da	te: <b>2/7/20</b> 1	18	SeqNo: 29	22755	
Analyte	Result	PQL	SPK value	SPK Ref Val	RPD Ref Val	%RPD	RPDLimit	Qual			
1,1-Dichloroethane	19.940	0.50	20.00	0	99.7	69	133				
1,2-Dichloroethane	19.750	0.50	20.00	0	98.8	69	132				
Benzene	21.550	1.0	20.00	0	108	81	122				
Ethylbenzene	22.220	1.0	20.00	0	111	73	127				
m,p-Xylene	45.740	1.0	40.00	0	114	76	128				
MTBE	20.380	1.0	20.00	0	102	65	123				
o-Xylene	21.770	1.0	20.00	0	109	80	121				
Tert-Butanol	145.930	5.0	100.0	0	146	70	130				S
Toluene	20.100	2.0	20.00	0	101	77	122				
Xylenes, Total	67.510	2.0	60.00	0	113	75	125				
Surr: 1,2-Dichloroethane-d4	23.960		25.00		95.8	72	119				
Surr: 4-Bromofluorobenzene	25.860		25.00		103	76	119				
Surr: Dibromofluoromethane	23.970		25.00		95.9	85	115				
Surr: Toluene-d8	24.930		25.00		99.7	81	120				

Sample ID N028452-001AMS	SampType: MS	TestCo	de: <b>8260_WP</b>	_SF Units: ug/L		Prep Da	te:		RunNo: 121906			
Client ID: ZZZZZZ	Batch ID: P18VW018	Testi	No: <b>EPA 8260</b>	В		Analysis Da	te: <b>2/7/20</b> 1	18	SeqNo: 292	22756		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	18.800	0.50	20.00	0	94.0	69	133					
1,2-Dichloroethane	19.990	0.50	20.00	0	100	69	132					
Benzene	19.990	1.0	20.00	0	100	81	122					
Ethylbenzene	19.560	1.0	20.00	0	97.8	73	127					
m,p-Xylene	39.360	1.0	40.00	0	98.4	76	128					
MTBE	19.960	1.0	20.00	0	99.8	65	123					
o-Xylene	19.070	1.0	20.00	0	95.4	80	121					
Tert-Butanol	134.130	5.0	100.0	0	134	70	130				S	
Toluene	18.630	2.0	20.00	0	93.2	77	122					
Xylenes, Total	58.430	2.0	60.00	0	97.4	75	125					
Surr: 1,2-Dichloroethane-d4	24.230		25.00		96.9	72	119					

#### Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits
- Not Detected at the Reporting Limit
- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out
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N028452

**Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

H Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Calculations are based on raw values

Sample ID N028452-001AMS	SampType: MS	TestCode: 8260_WP_SF Units: ug/L	Prep Date:	RunNo: <b>121906</b>
Client ID: ZZZZZZ	Batch ID: P18VW018	TestNo: EPA 8260B	Analysis Date: 2/7/2018	SeqNo: 2922756
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Surr: 4-Bromofluorobenzene	24.120	25.00	96.5 76 119	
Surr: Dibromofluoromethane	23.620	25.00	94.5 85 115	
Surr: Toluene-d8	24.900	25.00	99.6 81 120	
Comple ID NOOG4FG 0044MOD	0 T 1100	TootCode: 0000 MB OF Unite:	Dran Data:	DuraNo. 404000

Sample ID N028452-001AMSD	SampType: MSD	de: <b>8260_WP</b> .	_SF Units: ug/L		Prep Dat	te:		RunNo: <b>121906</b>				
Client ID: ZZZZZZ	Batch ID: P18VW018	Test	No: <b>EPA 8260</b>	В		Analysis Dat	te: <b>2/7/20</b> 1	18	SeqNo: <b>29</b> 2	22757		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	19.710	0.50	20.00	0	98.6	69	133	18.80	4.73	20		
1,2-Dichloroethane	20.610	0.50	20.00	0	103	69	132	19.99	3.05	20		
Benzene	21.410	1.0	20.00	0	107	81	122	19.99	6.86	20		
Ethylbenzene	20.950	1.0	20.00	0	105	73	127	19.56	6.86	20		
m,p-Xylene	42.590	1.0	40.00	0	106	76	128	39.36	7.88	20		
MTBE	19.910	1.0	20.00	0	99.6	65	123	19.96	0.251	20		
o-Xylene	20.780	1.0	20.00	0	104	80	121	19.07	8.58	20		
Tert-Butanol	138.050	5.0	100.0	0	138	70	130	134.1	2.88	20	S	
Toluene	19.980	2.0	20.00	0	99.9	77	122	18.63	6.99	20		
Xylenes, Total	63.370	2.0	60.00	0	106	75	125	58.43	8.11	20		
Surr: 1,2-Dichloroethane-d4	24.560		25.00		98.2	72	119		0			
Surr: 4-Bromofluorobenzene	25.190		25.00		101	76	119		0			
Surr: Dibromofluoromethane	24.000		25.00		96.0	85	115		0			
Surr: Toluene-d8	25.330		25.00		101	81	120		0			

Sample ID P180207MB3 Client ID: PBW	SampType: MBLK  Batch ID: P18VW018	TestCode: 8260_WI	_		Prep Da Analysis Da		Q	RunNo: <b>12</b> SeqNo: <b>29</b>		
Analyte	Result	PQL SPK value		%REC	•		RPD Ref Val	%RPD	Qual	
1,1-Dichloroethane	ND	0.50	of Kiter var	701KEO	LOWLIIIII	- Ingriciiiii	THE NOT VOI	701(1 12	RPDLimit	Quai
1,2-Dichloroethane	ND	0.50								

## Benzene Qualifiers:

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

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ANALYTICAL QC SUMMARY REPORT

**Project:** SFPP Norwalk TestCode: 8260\_WP\_SFPP

H Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Calculations are based on raw values

Sample ID P180207MB3	SampType: MBLK	TestCo	de: <b>8260_WP</b> .	_SF Units: ug/L		Prep Da	te:		RunNo: <b>121906</b>				
Client ID: PBW	Batch ID: P18VW018	TestN	No: <b>EPA 8260</b>	В		Analysis Da	te: <b>2/7/20</b>	18	SeqNo: <b>29</b> 2	22760			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Ethylbenzene	ND	1.0											
m,p-Xylene	ND	1.0											
MTBE	ND	1.0											
o-Xylene	ND	1.0											
Tert-Butanol	ND	5.0											
Toluene	ND	2.0											
Xylenes, Total	ND	2.0											
Surr: 1,2-Dichloroethane-d4	24.960		25.00		99.8	72	119						
Surr: 4-Bromofluorobenzene	24.550		25.00		98.2	76	119						
Surr: Dibromofluoromethane	24.270		25.00		97.1	85	115						
Surr: Toluene-d8	25.100		25.00		100	81	120						

#### Qualifiers:



Analyte detected below quantitation limits

E Value above quantitation range

Not Detected at the Reporting Limit

Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

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#### **CLIENT:** CH2MHill

Work Order: N028452

**Project:** SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270WATER\_SIMEXT

Sample ID LCS-66746	SampType: LCS	TestCode: 8270WATER	_ Units: µg/L		Prep Date	: 2/9/2018		RunNo: <b>121969</b>			
Client ID: LCSW	Batch ID: 66746	TestNo: EPA 8270C	EPA 3510C		Analysis Date	: 2/9/2018		SeqNo: 292	26238		
Analysis	Danult	DOI ODK value O	DK D-4 V-1	0/ DE 0	I avvil imite	I II ala I i aa is - D	NDD D-4 \/-I	0/ DDD	DDDI i it	01	
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LOWLIMIT	HighLimit R	RPD Ref Val	%RPD	RPDLimit	Qual	
Phenol	1.920	1.0 6.000	0	32.0	24	120					
Surr: 1,2-Dichlorobenzene-d4	0.630	1.000		63.0	16	120					
Surr: 2-Fluorobiphenyl	0.610	1.000		61.0	25	120					
Surr: 4-Terphenyl-d14	0.880	1.000		88.0	46	132					
Surr: Phenol-d5	0.300	1.000		30.0	15	120					
Sample ID MB-66746	SampType: MBLK	TestCode: 8270WATER	_ Units: µg/L		Prep Date	: 2/9/2018		RunNo: 12	1969		
Client ID: PBW	Batch ID: 66746	TestNo: EPA 8270C	EPA 3510C		Analysis Date	e: 2/9/2018		SeqNo: 292	26239		
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LowLimit I	HighLimit R	RPD Ref Val	%RPD	RPDLimit	Qual	
Phenol	ND	1.0									
Surr: 1,2-Dichlorobenzene-d4	0.800	1.000		80.0	16	120					
Surr: 2-Fluorobiphenyl	0.710	1.000		71.0	25	120					
Surr: 4-Terphenyl-d14	0.980	1.000		98.0	46	132					
Surr: Phenol-d5	0.290	1.000		29.0	15	120					
Sample ID N028452-001D-MS	SampType: MS	TestCode: 8270WATER	_ Units: µg/L		Prep Date	e: 2/9/2018		RunNo: 12	1969		
Client ID: ZZZZZZ	Batch ID: 66746	TestNo: EPA 8270C	EPA 3510C		Analysis Date	2/9/2018		SeqNo: <b>29</b> 2	26241		
Analyte	Result	PQL SPK value S	PK Ref Val	%REC	LowLimit I	HighLimit R	RPD Ref Val	%RPD	RPDLimit	Qual	
Phenol	2.300	1.0 6.000	0	38.3	24	120	_		_		
Surr: 1,2-Dichlorobenzene-d4	0.730	1.000		73.0	16	120					
Surr: 2-Fluorobiphenyl	0.710	1.000		71.0	25	120					
Surr: 4-Terphenyl-d14	0.920	1.000		92.0	46	132					
Surr: Phenol-d5	0.310	1.000		31.0	15	120					

#### Qualifiers:

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

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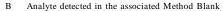
RPD outside accepted recovery limits Calculations are based on raw values

Project:

TestCode: 8270WATER\_SIMEXT SFPP Norwalk

Sample ID N028452-001D-MSD Client ID: ZZZZZZ	SampType: MSD Batch ID: 66746		le: <b>8270WAT</b> lo: <b>EPA 8270</b>	ER_ Units: µg/L C EPA 3510C		Prep Dat Analysis Dat	te: <b>2/9/20</b> 1		RunNo: <b>12</b> 1 SeqNo: <b>29</b> 2		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	2.220	1.0	6.000	0	37.0	24	120	2.300	3.54	20	
Surr: 1,2-Dichlorobenzene-d4	0.660		1.000		66.0	16	120		0		
Surr: 2-Fluorobiphenyl	0.700		1.000		70.0	25	120		0		
Surr: 4-Terphenyl-d14	0.930		1.000		93.0	46	132		0		
Surr: Phenol-d5	0.310		1.000		31.0	15	120		0		

#### Qualifiers:



Analyte detected below quantitation limits

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

CALIFORNIA | P:562.219.7435 F:562.219.7436

11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 **EPA ID CA01638** 

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

ANALYTICAL QC SUMMARY REPORT

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

Marlon Cartin (marlon@assetlaboratories.com)

CH2HI03 C: 2/7/2018 12:00 AM **FOLDER** R: 2/6/2018 1 of 1 N028452-002A

Section	A Client Information:		Section B					s	ection	С																					
Company	: Kinder Morgan Energy Partne	ers	Required Proje Report To:		mation: Davis				voice Int														ection mpler In	D formation:		10					
Address:	Attention: Steve Defibaugh 1100 Town & Country Road							A	ttention	1;	Stev	e Defiba	iugh -	Ref. AF	E# 8119	5						Sai	mpler	James Dye		///	$\overline{}$	_			
	Orange, CA 92868		Сору То:	Stev	ve Defiba	ugh			ompany		Kind	er Morg	an En	ergy Pa	rtners		-						me: mpler		-//	for					
Email To:	The state of the state of the	organ.com	Purchase Orde	er No.:					ame: ddress:	-	1100	Town 8	Cour	atry Ro	ad							Sig	nature	sh							
Phone:	714-560-4802 Fax: 71	4-560-4801	Project Name:	,	SEDD	Norwalk					Oran	ge, CA	2868	,								Sar	mple te:		2/6	118					
					3///	HOIWAIK			TL Proje anager:		Mari	on Carti	n									1		1	1/0	110					
Section I												- 11-22	000								-	Щ.							- 1		
	ample Information						CONTAINER	RTYPE	T	V	V	A	P	A			T	T	T	T	T	1	T	1000 0000							
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- 1				1	C=COMP)	l	1			MTBE, TBA (8260B)														1							
	SAMPLE ID	LOCATION/ DESC	DIRTION	1	l X	1	1			TB.		18											1	1							
- 1		LOCATION DESC	RIPTION	1	AB (	l	1	8		TBE,		8015	ਜ											1							
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		1		1				TNC	ᇦ	,2-D(	8	otal	H.		1																
				1	SAMPLE TYPE			TOTAL # OF CONTAINERS	Analysis Test	BTEX, 1,1-DCA, 1,2-DCA,	TPH-gas (8015B)	TPH-d, TPH-oil, Total TPH (8015B)	Cu, Pb, Zn (200.8); Hg (245.1)	6										1							
ITEM #				MATRIX	PLE			1#	lysi	1,1-D	as (8	杜	Zu (2	(8270)						7				1							
				MA	SAM	DATE	TIME	DIA	Ana	Ď,	H .	J.	Pb,	enot																	
1 E	F. 02:06	EFFLUENT		ww	_	3/6/18	TIME	F	+	X		_	_	_	+		-	-			_					c	omments				
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quished by	gnature and Printed Name):	Date / Time	.00		-1	741	<u></u>	V	VV		/		1,	1,		0	10	UN	7	☑E:	= 5 V	Vorkd	ays			1					
					Kei	orquisned by (S	ignature and Pr	inted Name);				D	ale/Ti	me					7	□E:	= 10	Work	days			1					
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										Oti	ners/S	pecify:							Ot	hers/S	pecify	<i>r</i> :			300	M = Metal	P = Plast	ic	C = Can	+	

1.7°C 18#2

## **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 of	or further in	struction, pleas	se contact our l	Project Coo	rdinator at (70	2) 307-2659.		
Cooler Received/Opened On:	2/6/2018				Workorder:	N028452		
Rep sample Temp (Deg C):	1.7				IR Gun ID:	2		
Temp Blank:	<b>✓</b> Yes	☐ No						
Carrier name:	Golden Sta	ate Overnight						
Last 4 digits of Tracking No.:	2278			Packing	Material Used:	Bubble Wrap		
Cooling process:	<b>✓</b> Ice	☐ Ice Pack	Dry Ice	Other	☐ None			
		<u>S:</u>	ample Receij	ot Checklis	<u>st</u>			
1. Shipping container/cooler in g	ood condition	n?			Yes 🗹	No 🗆	Not Present	
2. Custody seals intact, signed,	dated on ship	opping container/o	cooler?		Yes	No 🗆	Not Present	✓
3. Custody seals intact on samp	le bottles?				Yes	No 🗆	Not Present	✓
4. Chain of custody present?					Yes 🗸	No 🗆		
5. Sampler's name present in CO	OC?				Yes 🗸	No 🗌		
6. Chain of custody signed wher	n relinquished	d and received?			Yes 🗸	No 🗆		
7. Chain of custody agrees with	sample label	s?			Yes 🗸	No 🗌		
8. Samples in proper container/b	oottle?				Yes 🗸	No 🗌		
9. Sample containers intact?					Yes 🗹	No 🗆		
10. Sufficient sample volume for	indicated tes	st?			Yes 🗹	No 🗆		
11. All samples received within h	nolding time?				Yes 🗸	No 🗆		
12. Temperature of rep sample of	or Temp Blar	nk within acceptab	le limit?		Yes 🗸	No 🗌	NA	
13. Water - VOA vials have zero	headspace?	•			Yes 🗸	No 🗌	NA	
14. Water - pH acceptable upon Example: pH > 12 for (CN	•	r Metals			Yes 🗹	No 🗌	NA	
15. Did the bottle labels indicate	correct pres	ervatives used?			Yes 🗸	No 🗌	NA	
16. Were there Non-Conformand Wa	ce issues at l as Client noti				Yes  Yes	No 🗌 No 🗆	NA NA	<b>✓</b>
Comments:								

DA 2/7/18

02/07/2018

## **ASSET Laboratories**

## **WORK ORDER Summary**

07-Feb-18

WorkOrder: N028452

Client ID: CH2HI03

Project: SFPP Norwalk QC Level: RTNE

Date Received: 2/6/2018

**Comments:** Report metals, TPH and VOC preliminary data on 24-hr TAT. Report Total Xylenes.

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N028452-001A	EFF-02-06	2/6/2018	2/7/2018	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID				VW
			2/7/2018		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS				VW
N028452-001B			2/7/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS				WW
			2/7/2018		EPA 8015B	TPH EXTRACTABLE BY GC/FID				WW
	2/7/2018 EPA 8015B Total TPH		Total TPH				ww			
N028452-001C		2/7/2018 AQPREP TOTAL METALS: ICP, FLA		AQPREP TOTAL METALS: ICP, FLAA				ww		
			2/7/2018		EPA 200.8	TOTAL METALS BY ICPMS				ww
			2/7/2018		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE				WW
			2/7/2018			MERCURY PREP				WW
N028452-001D			2/13/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM				WW
			2/13/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				WW
N028452-002A	FOLDER	2/7/2018	2/7/2018		Folder	Folder				LAB
			2/7/2018		Folder	Folder				LAB



800-322-5555 www.gso.com

CPS

## **Ship From**

ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, NV 89118

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

**Delivery Instructions:** HOLD FOR PICKUP

Signature Type: STANDARD

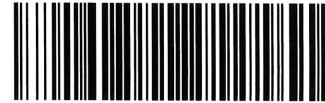
Tracking #: 539372278



LVS

**LAS VEGAS** 

C89102A



79075656

Print Date: 2/6/2018 5:24 PM

#### LABEL INSTRUCTIONS:

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

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.

Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

#### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

March 13, 2018

Eric Davis CH2MHill 1000 Wilshire Blvd. Los Angeles, CA 90017

TEL:

FAX: Workorder No.: N028951

RE: SFPP Norwalk

Attention: Eric Davis

Enclosed are the results for sample(s) received on March 06, 2018 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,

Quennie Manimtim

Laboratory Director

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

## **ASSET Laboratories**

CLIENT: CH2MHill
Project: SFPP Norwalk

Lab Order: N028951

# CASE NARRATIVE

**Date:** 13-Mar-18

## SAMPLE RECEIVING/GENERAL COMMENTS:

All sample containers were received intact with proper chain of custody documentation.

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

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

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 Comment for EPA 8015B\_DRO/ORO:

Method Blank has hit above the reporting limit; however the results were non-detect (ND) for analytes of interest and reanalysis of the sample was not necessary.

## **ASSET Laboratories**

CLIENT: CH2MHill
Project: SFPP Norwalk

Lab Order: N028951

Contract No:

Lab Sample ID Client Sample ID	Matrix	<b>Collection Date</b>	Date Received	Date Reported
N028951-001A EFF-03-06	Wastewater	3/6/2018 10:10:00 AM	3/6/2018	3/13/2018
N028951-001B EFF-03-06	Wastewater	3/6/2018 10:10:00 AM	3/6/2018	3/13/2018
N028951-001C EFF-03-06	Wastewater	3/6/2018 10:10:00 AM	3/6/2018	3/13/2018
N028951-001D EFF-03-06	Wastewater	3/6/2018 10:10:00 AM	3/6/2018	3/13/2018

**Date:** 13-Mar-18

**Work Order Sample Summary** 

## ANALYTICAL RESULTS

Print Date: 13-Mar-18

## **ASSET Laboratories**

**CLIENT:** CH2MHill Client Sample ID: EFF-03-06

Lab Order: N028951 Collection Date: 3/6/2018 10:10:00 AM **Project:** SFPP Norwalk Matrix: WASTEWATER

Analyse	S	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
SEMIVO	DLATILE ORGANIC COM	IPOUNDS BY GC/	MS	EP#	8270C			
RunID:	NV00922-MS9_180312A	QC Batch: <b>67</b> °	100	,	Prepl	Date:	3/9/2018	Analyst: <b>MJM</b>
Pheno	<del>-</del>	ND	0.33	1.0	·	μg/L	1	3/12/2018 09:18 PM
	r: 1,2-Dichlorobenzene-d4	59.0	0	16-120		%REC	1	3/12/2018 09:18 PM
	r: 2-Fluorobiphenyl	70.0	0	25-120		%REC	1	3/12/2018 09:18 PM
	r: 4-Terphenyl-d14	71.0	0	46-132		%REC	1	3/12/2018 09:18 PM
	r: Phenol-d5	31.0	0	15-120		%REC	1	3/12/2018 09:18 PM
νοι Δτ	ILE ORGANIC COMPOU	NDS BY GC/MS						
VOLA I	iee onoanio oomii oo	1150 51 00/1110		EPA	8260B			
RunID:	NV00922-MS5_180307A	QC Batch: P1	8VW034		Prepl	Date:		Analyst: QBM
1,1-Die	chloroethane	ND	0.45	0.50		ug/L	1	3/7/2018 12:45 PM
1,2-Di	chloroethane	ND	0.29	0.50		ug/L	1	3/7/2018 12:45 PM
Benze	ne	ND	0.34	1.0		ug/L	1	3/7/2018 12:45 PM
Ethylb	enzene	ND	0.31	1.0		ug/L	1	3/7/2018 12:45 PM
m,p-X	ylene	ND	0.23	1.0		ug/L	1	3/7/2018 12:45 PM
MTBE		ND	0.34	1.0		ug/L	1	3/7/2018 12:45 PM
o-Xyle	ne	ND	0.31	1.0		ug/L	1	3/7/2018 12:45 PM
Tert-B	utanol	ND	2.4	5.0		ug/L	1	3/7/2018 12:45 PM
Toluer	ne	ND	0.46	2.0		ug/L	1	3/7/2018 12:45 PM
Xylene	es, Total	ND	1.5	2.0		ug/L	1	3/7/2018 12:45 PM
Sur	r: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	3/7/2018 12:45 PM
Suri	r: 4-Bromofluorobenzene	102	0	76-119		%REC	1	3/7/2018 12:45 PM
Suri	r: Dibromofluoromethane	95.5	0	85-115		%REC	1	3/7/2018 12:45 PM
Suri	r: Toluene-d8	100	0	81-120		%REC	1	3/7/2018 12:45 PM
TPH EX	TRACTABLE BY GC/FIE	)						
		EPA 3510C		EPA	8015B			
RunID:	NV00922-GC1_180307A	QC Batch: 67	060		Prepl	Date:	3/7/2018	Analyst: SS
TPH-D	Diesel (C13-C22)	ND	15	25		ug/L	1	3/7/2018 03:20 PM
TPH-C	Dil (C23-C36)	19	14	25	J	ug/L	1	3/7/2018 03:20 PM
Suri	r: Octacosane	98.0	0	26-152		%REC	1	3/7/2018 03:20 PM
Suri	r: p-Terphenyl	96.4	0	57-132		%REC	1	3/7/2018 03:20 PM
GASOL	INE RANGE ORGANICS	BY GC/FID						
				EPA	8015B			
RunID:	NV00922-GC4_180307A	QC Batch: E1	8VW020		Prepl	Date:		Analyst: QBM
TPH-G	Gasoline (C4-C12)	ND	16	50		ug/L	1	3/7/2018 01:13 PM

Qualifiers: Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

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

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



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NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

## ANALYTICAL RESULTS

Print Date: 13-Mar-18

ASSET Laboratories

CLIENT: CH2MHill Client Sample ID: EFF-03-06

Lab Order:N028951Collection Date: 3/6/2018 10:10:00 AMProject:SFPP NorwalkMatrix: WASTEWATER

**Lab ID:** N028951-001

Analyse	es	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
GASOL	INE RANGE ORGANICS	BY GC/FID						
				EPA	8015B			
RunID:	NV00922-GC4_180307A	QC Batch: E1	8VW020		PrepD	Date:		Analyst: QBM
Sur	rr: Chlorobenzene - d5	125	0	74-138		%REC	1	3/7/2018 01:13 PM
MERC	JRY BY COLD VAPOR TE	CHNIQUE						
				EPA	245.1			
RunID:	NV00922-AA1_180307A	QC Batch: 67	057		PrepD	Date:	3/7/2018	Analyst: CEI
Mercu	ıry	ND	0.018	0.050		μg/L	1	3/7/2018 01:03 PM
TOTAL	METALS BY ICPMS							
				EPA	200.8			
RunID:	NV00922-ICP7_180307A	QC Batch: 67	051		PrepD	Date:	3/7/2018	Analyst: CEI
Сорре	er	ND	0.26	0.50		μg/L	1	3/7/2018 01:32 PM
Lead		ND	0.13	0.50		μg/L	1	3/7/2018 01:32 PM
Zinc		ND	0.27	1.0		μg/L	1	3/7/2018 01:32 PM
TOTAL	. TPH							
				EPA	8015B			
RunID:	NV00922-GC1_180307A	QC Batch: R1	22513		PrepD	Date:		Analyst: SS
Total	TPH	19	16	50	J	ug/L	1	3/7/2018

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



CALIFORNIA | P:562.219.7435 F:562.219.7436 11110 Artesia Blvd., Ste B, Cerritos, CA 90703 ELAP Cert 2921 EPA ID CA01638 NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046 **ASSET Laboratories Date:** 13-Mar-18

CLIENT: CH2MHill Work Order: N028951

SFPP Norwalk

Project:

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID	): MB-67051	SampType: MBLK	TestCo	de: <b>200.8_W</b> _	SFP Units: µg/L		Prep Da	te: <b>3/7/201</b>	8	RunNo: 122	2502	
Client ID:	PBW	Batch ID: 67051	Test	No: <b>EPA 200.8</b>	3		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: 294	19474	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	0.50									
Lead		ND	0.50									
Zinc		ND	1.0									
Sample ID	): LCS-67051	SampType: <b>LCS</b>	TestCo	de: <b>200.8_W</b> _	SFP Units: µg/L		Prep Da	te: <b>3/7/201</b>	8	RunNo: 122	2502	
Client ID:	LCSW	Batch ID: 67051	Test	No: <b>EPA 200.8</b>	3		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: 294	19475	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		11.119	0.50	10.00	0	111	85	115				
Lead		10.401	0.50	10.00	0	104	85	115				
Zinc		99.207	1.0	100.0	0	99.2	85	115				
Sample ID	: N028951-001C-DUP	SampType: <b>DUP</b>	TestCo	de: <b>200.8_W</b> _	SFP Units: µg/L		Prep Da	te: <b>3/7/201</b>	RunNo: <b>122502</b>			
Client ID:	ZZZZZZ	Batch ID: 67051	Test	No: <b>EPA 200.</b> 8	3		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: 294	19478	
									PPD Pof Val			Qual
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	KED Kei vai	%RPD	RPDLimit	Quai
Analyte Copper		Result ND	PQL 0.50	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	0	%RPD 0	RPDLimit 20	Quai
				SPK value	SPK Ref Val	%REC	LowLimit	HighLimit				Quai
Copper		ND	0.50	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	0	0	20	Quai
Copper Lead Zinc	D: N028951-001C-MS	ND ND	0.50 0.50 1.0		SPK Ref Val	%REC		HighLimit	0 0 0	0	20 20 20	Quai
Copper Lead Zinc		ND ND ND	0.50 0.50 1.0		SFP Units: μg/L			te: 3/7/201	0 0 0	0 0 0	20 20 20 20	Quai
Copper Lead Zinc		ND ND ND SampType: <b>MS</b>	0.50 0.50 1.0	de: 200.8_W_ No: EPA 200.8	SFP Units: μg/L		Prep Da Analysis Da	te: 3/7/201	0 0 0	0 0 0 RunNo: <b>122</b>	20 20 20 20	Qual
Copper Lead Zinc Sample ID Client ID:		ND ND ND SampType: MS Batch ID: 67051	0.50 0.50 1.0 TestCoo	de: 200.8_W_ No: EPA 200.8	SFP Units: μg/L		Prep Da Analysis Da	te: 3/7/201	0 0 0	0 0 0 RunNo: 122 SeqNo: 294	20 20 20 20 2502 49480	
Copper Lead Zinc Sample ID Client ID:		ND ND ND SampType: MS Batch ID: 67051 Result	0.50 0.50 1.0 TestCoo TestN	de: <b>200.8_W</b> _ No: <b>EPA 200.</b> 8 SPK value	SFP Units: μg/L 3 SPK Ref Val	%REC	Prep Da Analysis Da LowLimit	te: 3/7/201 te: 3/7/201 HighLimit	0 0 0	0 0 0 RunNo: 122 SeqNo: 294	20 20 20 20 2502 49480	

#### Qualifiers:

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

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



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Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W\_SFPP

Sample ID: N028951-001C-MSD	SampType: MSD	TestCod	TestCode: 200.8_W_SFP Units: μg/L			Prep Da	te: <b>3/7/201</b>	8	RunNo: <b>122502</b>			
Client ID: ZZZZZZ	Batch ID: 67051	TestN	TestNo: <b>EPA 200.8</b>			Analysis Date: 3/7/2018				SeqNo: <b>2949481</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	7.631	0.50	10.00	0	76.3	75	125	7.772	1.82	20		
Lead	10.259	0.50	10.00	0	103	75	125	10.26	0.0272	20		
Zinc	103.472	1.0	100.0	0	103	75	125	103.4	0.0942	20		

#### Qualifiers:

- Analyte detected in the associated Method Blank
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- Value above quantitation range
- Not Detected at the Reporting Limit

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



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**CLIENT:** CH2MHill

Work Order: N028951

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1\_W\_LL

Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Calculations are based on raw values

Sample ID: MB-67057	SampType: MBLK	TestCode: 245.1_W_LL Units: μg/L	Prep Date: 3/7/2018	RunNo: <b>122501</b>
Client ID: PBW	Batch ID: 67057	TestNo: <b>EPA 245.1</b>	Analysis Date: 3/7/2018	SeqNo: <b>2949299</b>
	<b>5</b>			
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	0.020	0.050		J
Sample ID: LCS-67057	SampType: <b>LCS</b>	TestCode: 245.1_W_LL Units: μg/L	Prep Date: 3/7/2018	RunNo: <b>122501</b>
Client ID: LCSW	Batch ID: 67057	TestNo: <b>EPA 245.1</b>	Analysis Date: 3/7/2018	SeqNo: <b>2949301</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.462	0.050 2.500 0	98.5 85 115	
Sample ID: N028951-001C-MS	SampType: MS	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 3/7/2018	RunNo: <b>122501</b>
Client ID: ZZZZZZ	Batch ID: 67057	TestNo: <b>EPA 245.1</b>	Analysis Date: 3/7/2018	SeqNo: <b>2949302</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.646	0.050 2.500 0	106 75 125	
Sample ID: N028951-001C-MSD	SampType: MSD	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 3/7/2018	RunNo: <b>122501</b>
Client ID: ZZZZZZ	Batch ID: 67057	TestNo: EPA 245.1	Analysis Date: 3/7/2018	SeqNo: <b>2949303</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	2.510	0.050 2.500 0	100 75 125 2.646	5.25 20
Sample ID: N028951-001C-DUP	SampType: <b>DUP</b>	TestCode: 245.1_W_LL Units: µg/L	Prep Date: 3/7/2018	RunNo: <b>122501</b>
Client ID: ZZZZZZ	Batch ID: 67057	TestNo: <b>EPA 245.1</b>	Analysis Date: 3/7/2018	SeqNo: <b>2949306</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Mercury	ND	0.050	0	0 20

#### Qualifiers:

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**EPA ID CA01638** 

ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

ASSET LABORATORIES

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_FP\_SFPP

Sample ID: MB-67060	SampType: MBLK		TestCode: 8015_W_FP_ Units: ug/L TestNo: EPA 8015B EPA 3510C			te: 3/7/201		RunNo: 122		
Client ID: PBW	Batch ID: 67060	Testino: EPA	8015B EPA 3510C		Analysis Da	te: 3///201	8	SeqNo: <b>294</b>	19701	
Analyte	Result	PQL SPK v	alue SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Diesel (C13-C22)	ND	25								
TPH-Oil (C23-C36)	26.992	25								
Surr: Octacosane	68.772	8	0.00	86.0	26	152				
Surr: p-Terphenyl	67.271	8	0.00	84.1	57	132				

#### Qualifiers:

- Analyte detected in the associated Method Blank
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- Holding times for preparation or analysis exceeded
- RPD outside accepted recovery limits Calculations are based on raw values

ANALYTICAL QC SUMMARY REPORT

Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Calculations are based on raw values

TestCode: 8015\_W\_SFPPTOT **Project:** SFPP Norwalk

Sample ID: MB-R122513	SampType: MBLK	TestCode: 8015_W_SFP Units: ug/L	Prep Date:	RunNo: <b>122513</b>
Client ID: PBW	Batch ID: R122513	TestNo: EPA 8015B	Analysis Date: 3/7/2018	SeqNo: <b>2950677</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual

#### Qualifiers:

**CLIENT:** 

Total TPH

Work Order:

CH2MHill

26.992

50

N028951

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

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## ANALYTICAL QC SUMMARY REPORT

TestCode: 8015GAS\_WSFPP

Sample ID: E180307LCS	SampType: <b>LCS</b>	TostCo	do: <b>901 F.C.A.S</b>	WS Units: ug/L		Prep Da	ito:		RunNo: 12	2504	
Client ID: LCSW						·		10			
Client ID: LCSW	Batch ID: E18VW020	resti	No: <b>EPA 8015</b>	В		Analysis Da	ite: 3///201	18	SeqNo: <b>29</b>	49520	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	869.000	50	1000	0	86.9	67	136				
Surr: Chlorobenzene - d5	51959.000		50000		104	74	138				
Sample ID: E180307MB1	SampType: MBLK	TestCo	de: <b>8015GAS</b> _	_WS Units: ug/L		Prep Da	ite:		RunNo: <b>12</b> :	2504	
Client ID: PBW	Batch ID: E18VW020	TestNo: EPA 8015B				Analysis Da	ite: 3/7/201	18	SeqNo: 29	49521	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	50									
Surr: Chlorobenzene - d5	53667.000		50000		107	74	138				
Sample ID: N028951-001AMS	SampType: MS	TestCo	de: <b>8015GAS</b> _	_WS Units: ug/L		Prep Da	ite:		RunNo: 12	2504	
Client ID: ZZZZZZ	Batch ID: E18VW020	Testi	No: <b>EPA 8015</b>	В		Analysis Da	te: 3/7/201	18	SeqNo: 29	49523	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1106.000	50	1000	0	111	67	136				
Surr: Chlorobenzene - d5	60121.000		50000		120	74	138				
Sample ID: N028951-001AMSD	SampType: MSD	TestCo	de: <b>8015GAS</b> _	_WS Units: ug/L		Prep Da	ite:		RunNo: 12	2504	
Client ID: ZZZZZZ	Batch ID: E18VW020	Testi	No: <b>EPA 8015</b>	В		Analysis Da	ite: 3/7/201	18	SeqNo: 29	49524	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	1080.000	50	1000	0	108	67	136	1106	2.38	30	

#### Qualifiers:

**CLIENT:** 

Project:

Work Order:

CH2MHill

SFPP Norwalk

N028951

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- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

61352.000

50000

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



123

74

138

Surr: Chlorobenzene - d5

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: P180307LCS	SampType: <b>LCS</b>	TestCod	TestCode: 8260_WP_SF Units: ug/L			Prep Da	te:		RunNo: <b>122506</b>			
Client ID: LCSW	Batch ID: P18VW034	TestN	No: EPA 8260	В		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: <b>2949581</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	21.250	0.50	20.00	0	106	69	133					
1,2-Dichloroethane	21.170	0.50	20.00	0	106	69	132					
Benzene	20.760	1.0	20.00	0	104	81	122					
Ethylbenzene	21.660	1.0	20.00	0	108	73	127					
m,p-Xylene	43.780	1.0	40.00	0	109	76	128					
MTBE	19.520	1.0	20.00	0	97.6	65	123					
o-Xylene	21.060	1.0	20.00	0	105	80	121					
Tert-Butanol	83.270	5.0	100.0	0	83.3	70	130					
Toluene	20.680	2.0	20.00	0	103	77	122					
Xylenes, Total	64.840	2.0	60.00	0	108	75	125					
Surr: 1,2-Dichloroethane-d4	26.140		25.00		105	72	119					
Surr: 4-Bromofluorobenzene	26.630		25.00		107	76	119					
Surr: Dibromofluoromethane	25.790		25.00		103	85	115					
Surr: Toluene-d8	26.670		25.00		107	81	120					

Sample ID: N028951-001AMSD	SampType: MSD	TestCo	TestCode: 8260_WP_SF Units: ug/L			Prep Da	te:		RunNo: 122506		
Client ID: ZZZZZZ	Batch ID: P18VW034	Test	No: <b>EPA 8260</b>	В		Analysis Da	te: 3/7/201	8	SeqNo: <b>2949583</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	21.700	0.50	20.00	0	108	69	133	22.85	5.16	20	
1,2-Dichloroethane	19.730	0.50	20.00	0	98.6	69	132	20.30	2.85	20	
Benzene	21.160	1.0	20.00	0	106	81	122	22.88	7.81	20	
Ethylbenzene	22.190	1.0	20.00	0	111	73	127	23.95	7.63	20	
m,p-Xylene	44.620	1.0	40.00	0	112	76	128	48.44	8.21	20	
MTBE	18.400	1.0	20.00	0	92.0	65	123	17.94	2.53	20	
o-Xylene	21.660	1.0	20.00	0	108	80	121	22.89	5.52	20	
Tert-Butanol	80.980	5.0	100.0	0	81.0	70	130	78.27	3.40	20	
Toluene	20.780	2.0	20.00	0	104	77	122	22.77	9.14	20	
Xylenes, Total	66.280	2.0	60.00	0	110	75	125	71.33	7.34	20	
Surr: 1,2-Dichloroethane-d4	25.720		25.00		103	72	119		0		

#### Qualifiers:

- Analyte detected in the associated Method Blank
- Analyte detected below quantitation limits
- Value above quantitation range
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- Spike/Surrogate outside of limits due to matrix interference DO Surrogate Diluted Out

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



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## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

CLIENT:	CH2MHill
Work Order:	N028951

**Project:** SFPP Norwalk

Sample ID: N028951-001AMSD	SampType: MSD	TestCo	de: <b>8260_WP</b> _	_SF Units: ug/L	J/L Prep Date:				RunNo: <b>122506</b>			
Client ID: ZZZZZZ	Batch ID: P18VW034	TestN	No: EPA 8260	В		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: 294	49583		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	26.270		25.00		105	76	119		0			
Surr: Dibrom of luorom ethane	24.550		25.00		98.2	85	115		0			
Surr: Toluene-d8	25.270		25.00		101	81	120		0			
Sample ID: <b>N028951-001AMS</b>	SampType: MS	TestCod	de: <b>8260_WP</b> _	_SF Units: ug/L		Prep Da	te:		RunNo: 122	2506		
Client ID: ZZZZZZ	Batch ID: P18VW034	TestN	No: EPA 8260	В		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: 294	49584		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	22.850	0.50	20.00	0	114	69	133					
1,2-Dichloroethane	20.300	0.50	20.00	0	102	69	132					
Benzene	22.880	1.0	20.00	0	114	81	122					
Ethylbenzene	23.950	1.0	20.00	0	120	73	127					
m,p-Xylene	48.440	1.0	40.00	0	121	76	128					
MTBE	17.940	1.0	20.00	0	89.7	65	123					
o-Xylene	22.890	1.0	20.00	0	114	80	121					
Tert-Butanol	78.270	5.0	100.0	0	78.3	70	130					
Toluene	22.770	2.0	20.00	0	114	77	122					
Xylenes, Total	71.330	2.0	60.00	0	119	75	125					
Surr: 1,2-Dichloroethane-d4	24.270		25.00		97.1	72	119					
Surr: 4-Bromofluorobenzene	26.070		25.00		104	76	119					
Surr: Dibrom of luorom ethane	23.380		25.00		93.5	85	115					
Surr: Toluene-d8	25.620		25.00		102	81	120					
Sample ID: P180307MB3	SampType: MBLK	TestCod	de: <b>8260_WP</b> _	_SF Units: ug/L		Prep Da	te:		RunNo: 122	2506		
Client ID: PBW	Batch ID: P18VW034	TestN	No: EPA 8260	В		Analysis Da	te: <b>3/7/201</b>	8	SeqNo: 294	49587		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethane	ND	0.50										

## Benzene Qualifiers:

1,2-Dichloroethane

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

0.50

1.0

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



ND

ND

Project: SFPP Norwalk

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: P180307MB3	SampType: MBLK	TestCo	TestCode: 8260_WP_SF Units: ug/L			Prep Da	ite:		RunNo: 122	2506		
Client ID: PBW	Batch ID: P18VW034	Testi	No: EPA 8260	В		Analysis Da	ate: 3/7/201	8	SeqNo: <b>2949587</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Ethylbenzene	ND	1.0										
m,p-Xylene	ND	1.0										
MTBE	ND	1.0										
o-Xylene	ND	1.0										
Tert-Butanol	ND	5.0										
Toluene	ND	2.0										
Xylenes, Total	ND	2.0										
Surr: 1,2-Dichloroethane-d4	25.800		25.00		103	72	119					
Surr: 4-Bromofluorobenzene	25.340		25.00		101	76	119					
Surr: Dibromofluoromethane	24.150		25.00		96.6	85	115					
Surr: Toluene-d8	25.400		25.00		102	81	120					

#### Qualifiers:

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

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



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## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270WATER\_SIMEXT

CLIENT:	CH2MHill
Work Order:	N028951
Project:	SFPP Norwalk

Sample ID: LCS-67100	SampType: <b>LCS</b>	TestCode: 8270WATER_ Units: µg/L	Prep Date: 3/9/2018	RunNo: <b>122606</b>
Client ID: LCSW	Batch ID: 67100	TestNo: <b>EPA 8270C EPA 3510C</b>	Analysis Date: 3/12/2018	SeqNo: <b>2953531</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	2.190	1.0 6.000 0	36.5 24 120	
Surr: 1,2-Dichlorobenzene-d4	0.590	1.000	59.0 16 120	
Surr: 2-Fluorobiphenyl	0.630	1.000	63.0 25 120	
Surr: 4-Terphenyl-d14	0.570	1.000	57.0 46 132	
Surr: Phenol-d5	0.300	1.000	30.0 15 120	
Sample ID: LCSD-67100	SampType: <b>LCSD</b>	TestCode: 8270WATER_ Units: µg/L	Prep Date: 3/9/2018	RunNo: <b>122606</b>
Client ID: LCSS02	Batch ID: 67100	TestNo: <b>EPA 8270C EPA 3510C</b>	Analysis Date: 3/12/2018	SeqNo: <b>2953532</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	2.260	1.0 6.000 0	37.7 24 120 2.190	3.15 20
Surr: 1,2-Dichlorobenzene-d4	0.610	1.000	61.0 16 120	0
Surr: 2-Fluorobiphenyl	0.670	1.000	67.0 25 120	0
Surr: 4-Terphenyl-d14	0.800	1.000	80.0 46 132	0
Surr: Phenol-d5	0.330	1.000	33.0 15 120	0
Sample ID: MB-67100	SampType: MBLK	TestCode: 8270WATER_ Units: µg/L	Prep Date: 3/9/2018	RunNo: <b>122606</b>
Client ID: PBW	Batch ID: 67100	TestNo: <b>EPA 8270C EPA 3510C</b>	Analysis Date: 3/12/2018	SeqNo: <b>2953533</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Phenol	ND	1.0		
Surr: 1,2-Dichlorobenzene-d4	0.500	1.000	50.0 16 120	
Surr: 2-Fluorobiphenyl	0.570	1.000	57.0 25 120	
Surr: 4-Terphenyl-d14	0.720	1.000	72.0 46 132	
Surr: Phenol-d5	0.250	1.000	25.0 15 120	

#### Qualifiers:

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

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



NEVADA | P:702.307.2659 F:702.307.2691 3151 W. Post Rd., Las Vegas, NV 89118 ELAP Cert 2676 | NV Cert NV00922 ORELAP/NELAP Cert 4046

Asset Laboratories
3151 W. Post Road
Las Vegas, NV 89118
Tel: 702-307-2659 Fax: 702-307-2691
Marlon Cartin (marlon@assetlaboratories.com)

CHAIN OF CUSTODY RECORD

Section A Section B Required Client Information: Required Project Information:					ection	C ormation									Section D Sampler Information:													
Compar	y: Kinder Morgan Energy Partners Attention: Steve Defibaugh		Report To:	Eric D	Davis				ttention			Defibau	gh - Re	f. AFE#	81195				Sampler James Dye									
Address	: 1100 Town & Country Road		Copy To:	Steve	Defibau	gh			ompany	8	Kinde	r Morga	n Energ	v Partn	ers					Name: Sampler								
Email To	Orange, CA 92868 steve_defibaugh@kindermo	rgan com	Purchase Order	No:		W		N	ame: ddress:	-									Signature:									
	eric davis@ch2m.com			.,							1100 Town & Country Road Orange, CA 92868						Sample 3/6/18											
Phone:	714-560-4802 Fax: 714	-560-4801	Project Name:		SFPP N	orwalk			TL Proje		Marlo	n Cartin									T			-				
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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:	3/6/2018				Workorder:	N028951		
Rep sample Temp (Deg C):	3.9				IR Gun ID:	2		
Temp Blank:	<b>✓</b> Yes	☐ No						
Carrier name:	Golden St	tate Overnight						
Last 4 digits of Tracking No.:	1094			Packing	g Material Used:	Bubble Wrap		
Cooling process:	<b>✓</b> Ice	☐ Ice Pack	☐ Dry Ice	Other	□ None			
		Sa	ample Recei	ot Checklis	<u>st</u>			
1. Shipping container/cooler in g	good condition		•		Yes 🗸	No $\square$	Not Present	
2. Custody seals intact, signed,	dated on sh	ippping container/o	cooler?		Yes	No $\square$	Not Present	
3. Custody seals intact on samp	le bottles?				Yes	No $\square$	Not Present	
4. Chain of custody present?					Yes 🗸	No $\square$		
5. Sampler's name present in C	OC?				Yes 🗹	No $\square$		
6. Chain of custody signed whe	n relinquishe	ed and received?			Yes 🗸	No $\square$		
7. Chain of custody agrees with	sample labe	els?			Yes 🗸	No $\square$		
8. Samples in proper container/b	oottle?				Yes 🗸	No $\square$		
9. Sample containers intact?					Yes 🗸	No $\square$		
10. Sufficient sample volume for	r indicated to	est?			Yes 🗹	No $\square$		
11. All samples received within l	holding time	?			Yes 🗸	No $\square$		
12. Temperature of rep sample	or Temp Bla	ank within acceptab	ole limit?		Yes 🗹	No $\square$	NA 🗆	
13. Water - VOA vials have zero	headspace	9?			Yes 🗹	No $\square$	NA 🗆	
14. Water - pH acceptable upor	•				Yes 🗹	No $\square$	NA [	
Example: pH > 12 for (CN						$\square$	[	7
15. Did the bottle labels indicate	•				Yes 🗹	No 🗔	NA L	
<ol><li>Were there Non-Conforman</li><li>W</li></ol>	ce issues at as Client no	•			Yes □ Yes □	No ∐ No □	NA № NA №	
Comments:								

Checklist Completed By: YR 3/7/2018

Reviewed By: 03/07/2018

## **ASSET Laboratories**

## **WORK ORDER Summary**

06-Mar-18

WorkOrder: N028951

Client ID: CH2HI03

Project: SFPP Norwalk QC Level: RTNE

Date Received: 3/6/2018

**Comments:** Report metals, TPH and VOC preliminary data on 24-hr TAT. Report Total Xylenes.

Sample ID	Client Sample ID	<b>Date Collected</b>	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N028951-001A	EFF-03-06	3/6/2018 10:10:00 AM	3/7/2018	Wastewater	EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID				VW
			3/7/2018		EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS				VW
N028951-001B			3/7/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS				WW
			3/7/2018		EPA 8015B	TPH EXTRACTABLE BY GC/FID				ww
			3/7/2018		EPA 8015B	Total TPH				ww
N028951-001C			3/7/2018			AQPREP TOTAL METALS: ICP, FLAA				ww
			3/7/2018		EPA 200.8	TOTAL METALS BY ICPMS				ww
			3/7/2018		EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE				WW
			3/7/2018			MERCURY PREP				ww
N028951-001D			3/13/2018		EPA 3510C	SEPARATORY FUNNEL EXTRACTION: 8270C - SIM				WW
			3/13/2018		EPA 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				WW
N028951-002A	FOLDER	3/7/2018	3/7/2018		Folder	Folder				LAB
			3/7/2018		Folder	Folder				LAB



800-322-5555 www.gso.com

**CPS** 

Ship From

ASSET LABORATORIES MOLKY BRAR 11110 ARTESIA BLVD. SUITE B CERRITOS, CA 90703

Ship To ASSET LABORATORIES MARLON CARTIN 3151 W. POST RD., LAS VEGAS, NV 89118

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

**Delivery Instructions:** HOLD FOR PICKUP

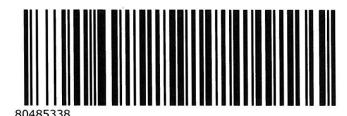
Signature Type: NOT REQUIRED

Tracking #: 539711094

LVS

LAS VEGAS

C89102A



Print Date: 3/6/2018 5:55 PM

Package 1 of 2

#### LABEL INSTRUCTIONS:

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

Step 1: Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer.

Step 2: Fold this page in half.

Step 3: Securely attach this label to your package and do not cover the barcode.

#### **TERMS AND CONDITIONS:**

By giving us your shipment to deliver, you agree to all of the GSO service terms & conditions including, but not limited to; limits of liability, declared value conditions, and claim procedures which are available on our website at www.gso.com.

Attachment B
Data Quality Assurance/
Quality Control

# Data Quality Assurance/Quality Control

Data quality was evaluated by examining the holding times, laboratory method blanks, surrogate percent recoveries, laboratory control sample/laboratory control sample duplicate (LCS/LCSD) and matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent differences (RPDs). Data quality review results for each analysis are outlined in the following subsections.

## Analytical Data

The data quality evaluation report covers three normal effluent samples. Samples were collected between January 9 and March 6, 2018. Analyses were performed by Asset Laboratories in Cerritos, California and BC Laboratories in Bakersfield, California. The sample results were reported as three sample delivery groups (SDGs):

Sample Delivery Groups
N027903
N028452
N028951

Eleven methods were used to analyze the environmental samples. Samples were collected and submitted directly to the Asset Laboratories for analysis. Asset Laboratories was responsible for shipment of samples to BC Laboratories. Samples were analyzed for the following analytes/methods:

Parameter	Method
Turbidity	SM2130B
Total suspended solids	SM2540D
Settleable solids	SW2540F
Biochemical oxygen demand	SM5210B
Oil and grease	E1664
Metals	E200.8/E245.1
Ammonia	SM4500NH3G
Total petroleum hydrocarbons (TPH) – gasoline, diesel, and motor oil ranges	SW8015B
Volatile organic compounds (VOCs)	SW8260B
Phenol	SW8270C

Data validation flags were assigned using guidance from the EPA Contract Laboratory National Functional Guidelines for Organic Superfund Methods Data Review (EPA, 2017) and EPA Contract Laboratory National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA, 2017). Multiple flags are routinely applied to specific sample method/ matrix/ analyte combinations, but there will be only one final flag. A final flag is applied to the data and is the most conservative of the applied data validation flags. The final flag also includes blank sample impacts.

AX0508181729SCO 1

The data validation flags are as follows:

- J = Analyte was present, but the reported value may not be accurate or precise (estimated). The
  result was estimated because it was less than the referenced reporting limit, but greater than the
  method detection limit, or because a quality control (QC) exceedance occurred.
- R = Data were unusable because of deficiencies in the ability to analyze the sample and meet QC criteria.
- U = Analyte was not detected at the specified detection limit.
- UJ = Analyte was not detected, and the specified detection limit may not be accurate or precise (estimated).

## **Findings**

The overall summaries of the data validation findings are contained in the following subsections.

## **Holding Times**

All holding time criteria were met.

#### **Method Blanks**

Method blanks were analyzed at the required frequency and were free of contamination that would affect the sample results with the following exceptions:

 TPH-motor oil and total TPH were detected less than the reporting limit in a method blank for Method SW8015B. Two associated results were detected less than five times the blank concentrations and were qualified as not detected and flagged "U" in sample EFF-03-06.

## **Surrogates**

All surrogate recovery criteria were met.

## **Internal Standards**

All internal standard criteria were met.

## **Laboratory Control Samples**

LCS/LCSDs were analyzed as required. All accuracy and precision criteria were met.

## **Matrix Spikes/Matrix Spike Duplicates**

The results of MS/MSD analyses provide information about the possible influence of the matrix on either accuracy or precision of the measurements. There were no MS/MSD recovery or RPD exceedances that would affect the sample results.

## **Chain-of-Custody**

Each sample was documented in a completed chain-of-custody and received at the laboratory in good condition.

## **Overall Assessment**

An overall evaluation of the data indicates that the sample handling, shipment, and analytical procedures have been adequately completed, and that the analytical results are considered usable taking into consideration possible biases as described above.

AX0508181729SCO 2

Attachment C Waste Manifests

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# Certificate of Treatment/Recycling

	SFPP - NC	RWALK STA	ATION		
, , , , , , , , , , , , , , , , , , , ,		FOR			
MANIFEST NUMBER 00	9479211FLE	and the state of t	DATE RECEIVED	1/30/2018	

The aqueous waste received on the above manifest will be treated to standards mandated by the FEDERAL CLEAN WATER ACT and to effluent requirements established by the Sanitation Districts of Los Angeles County. Waste treatment and recycling is performed under permits granted to DeMENNO/KERDOON, a California Corporation, by the California Department of Toxic Control (DTSC), in coordination with the Environmental Protection Agency, in accordance with the provisions of the Resource Conservation and Recovery Act (RCRA) of 1976, together with applicable federal and state regulations including but not limited to waste discharge requirements established by the Sanitation Districts of Los Angeles County.

When the above described waste material is accepted by DeMENNO/KERDOON and treated/recycled and the aqueous phase discharged for further treatment by the Sanitation Districts, the certificate holder's responsibility for the waste material is eliminated under both RCRA and Proposition 65. Upon request, DeMENNO/KERDOON will issue this certificate that all waste material has been handled in accordance with applicable permits and the certificate holder's liability has been terminated.

DeMENNO/KERDOON

"Compliance Through Recycling"

Date: 2/27/2018

Cyrus Pourhassanian
Laboratory Manager

2000 North Alameda Street © Compton © California © 90222

Telephone (310) 537-7100 @ Facsimile (310) 639-2946

Plea	se pri	nt or type. (Form desig	ned for use on elit	e (12-pitch) typewr	DW 1801:	310478		SC PPV	W 10/10,	/2017	Form	Approved.	OMB No. 2	050-0039	
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15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are clared and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmentative gulations. If export shipment and															
Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.  I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.															
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1	-	Discrepancy					Г								
	16a.	Discrepancy Indication Sp	Quar	ıtity	Туре		Į	Residue		Partial Re	jection	l	Full Reje	ection	
			****				N	Manifest Refere	nce Number:			•			
	18b.	Alternate Facility (or Gene	erator)							U.S. EPA ID	Number				
FAC	18b. Alternate Facility (or Generator)  U.S. EPA ID Number  Facility's Phone:  18c. Signature of Alternate Facility (or Generator)  19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)  1														
E									. Mo	onth Day	y Year				
GNA	40.1	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)													
DESI	19.1		vianagement Method	2.	nazaruous waste tre	atment, dispos	ai, dii0 re	cycling system:	3)	4.					
		H141						THE PARTY OF THE P							
	-	Designated Facility Owner ed/Typed Name	or Operator: Certific	ation of receipt of haza	ardous materials cove		nifest exce ignature	ept as noted in	Item 18a			Mr	onth Day	/ Year	
11						1	-gridiai G						Day	1	

Site Address:

15306 Norwalk Boulevard Norwalk,CA 90651

SC PPW 10/10/2017

WORK ORDER NO. 1801310478

DOCUMENT NO	o. 008	5685	5	STRAIGHT BILL	OF LADING		DATE	01310478	
TRANSPORTER 1Clean Harbors Environmental Service					Inc.	_ VEHICLE ID	# _55	5548	
EPA ID#			3932225	C 4000-711		TRANS. 1 PHONE			
TRANSPORTE	R 2	- V	·			_ VEHICLE ID	#		
EPA ID#	9					_ TRANS. 2 PH	IONE	***************************************	
DESIGNATED	FACILITY				SHIPPER		and the second s		
Clean Ha	arbors Wilmi	ngton L	LC		Sfpp, L.P. Non	ATTN:Karina	Hankins		
FACILITY EPA	ID#				SHIPPER EPA	ID#			
ADDRESS	1442983	15			CAT0800:	33962		*	
	st Denni Str	oot			ADDRESS				
CITY	arrenn on	CEL	STATE	ZIP	CITY	id Country Road		ZIP	
Wilming	ton		CA	90744	Orange		CA	92868	
CONTAINERS NO. & SIZE	TYPE	HM			N OF MATERIALS	S	TOTAL	UNIT WT/VOL	
X 55	DM		A. NON D.O.	T. REGULATED, (FIL	.ters)		260	P	
			B.	2	* .	1)	0.00		
			C.						
		-	D.						
			E.		2				
			F.						
			G.		2				
			H.						
SPECIAL HAN A.CH1424321-N		ructi	ONS EMER	GENCY PHONE #: (8	00) 483-3718	GENERATOR: S	fpp, L.P. Norwalk	Station	
SHIP	PPERS CEE	TIFICA	TION: This i	o to positive the stable			10 10 200		

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER JAMES DUE PRINT TRANSPORTER 1  PRINT  PRINT  PRINT	SIGN	DATE 3/19/18 DAVE 3/19/18
TRANSPORTER 2	SIGN	DATE
PRINT	SIGN	DATE
RECEIVED BY		

## **Drum Order Packing List**

Date: 03/15/2018

Job Öwner: John F Winwood 1801310478 Created By: Kenneth J Linton

Attention Drivers: Call 1-877-333-4244 with Additions or Questions Regarding this Order

Generator Code: SF1212

Customer Code: KI0596

Manifest Mailing Address:	Site Address:	Customer Address:			
Sfpp, L.P. Norwalk Station	Sfpp, L.P. Norwalk Station	Kinder Morgan			
1100 Town And Country Road	15306 Norwalk Boulevard	1100 Town and Country Road			
Orange, CA 92868	Norwalk, CA 90651	Orange, CA 92868			
<b>EPA ID #:</b> CAT080033962	State EPA ID #:	Purchase Order No: NO PO NEEDED			

Actual Qty	Qty	UOM	Unit Price	Extended Price	Item #	Item Description	
	4	EA	59.00	236.00	DM55STL	55 G / 205 L Steel Drum, Reconditioned 1A2/Y1.2/100 (17-H)	

Signature:

1801310478

nc. 1

Report Printed On: 3/15/2018 17:27:30 AM

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