



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

February 14, 2012

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

**Re: Effluent Monitoring Report**  
October through December 2011  
SFPP, L.P.  
15306 Norwalk Boulevard, Norwalk, California  
(NPDES No. CA0063509, CI No. 7497)

Attention: Information Technology Unit

In reference to the subject National Pollutant Discharge Elimination System (NPDES) permit, please find enclosed the fourth calendar quarter 2011 self-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 directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 14th day of February 2012.  
at 3:33 p.m.

A handwritten signature in blue ink, appearing to read "Stephen T. Defibaugh".

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

Stephen T. Defibaugh (printed name)

Remediation Project Manager (title)



**CH2M HILL**  
1000 Wilshire Blvd.  
21st Floor  
Los Angeles, CA 90017  
**Tel 213.538.1388**  
**Fax 213.538.1399**

February 15, 2012

420932.A1.05

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

Subject: Effluent Monitoring Report, October 1 to December 31, 2011 (Fourth Quarter 2011)  
SFPP Norwalk Pump Station, 15306 Norwalk Boulevard, Norwalk, California  
(NPDES No. CA0063509, CI No. 7497)

Dear Mr. Defibaugh:

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

This is the second quarterly effluent monitoring report prepared for Order No. R4-2011-0095 and Time Schedule Order No. R4-2011-0096, which were adopted at a public hearing on June 2, 2011. The monitoring program for Order No. R4-2011-0095, which became effective on July 2, 2011, was first implemented during the third quarter 2011 period. Order No. R4-2011-0095 replaces prior Order No. R4-2005-0072.

SFPP performed certain operations, maintenance, and monitoring tasks on the product recovery and GWE systems. SFPP retained CH2M HILL to prepare this report based on the NPDES monitoring performed by SFPP. This report describes NPDES monitoring activities during the period of October 1 through December 31, 2011.

## Remediation System

The remediation system at the site consists of soil vapor extraction (SVE) and extraction of free product and/or groundwater (total fluids extraction [TFE]) for product recovery, GWE for hydraulic control, and treatment of extracted soil vapors and groundwater. SVE is performed using a blower to remove soil vapors at a rate of up to 2,500 standard cubic feet per minute (scfm) from up to 32 SVE wells. The extracted vapors are conveyed to a knockout tank that separates entrained moisture from the soil vapors. Soil vapors are then treated in a catalytic

oxidizer prior to emission to the atmosphere. Operation of the SVE and treatment system is conducted in accordance with Permit to Operate No. F13759 issued by the South Coast Air Quality Management District.

The free product and GWE portion of the system currently consists of 18 TFE wells with top-loading pumps and two GWE wells with bottom-loading pumps that are located in the south-central part of the site, and three TFE wells that are located in the southeastern part of the site. The West Side Barrier (WSB) GWE system was shut down in August 2008 based on the reduced lateral extent and low concentrations of volatile organic compounds (VOCs) west of the site.

Free product and groundwater recovered by pneumatically operated top-loading total fluids pumps and bottom-loading groundwater pumps in the south-central and southeastern parts of the site along with the liquid condensate from the knockout tank are piped to an oil-water separator (OWS). Free product, if any, from the OWS is collected in a storage tank and recycled at an offsite location. Water from the OWS is treated using liquid-phase granular activated carbon (LGAC). Treated water is routed through an onsite 3,000-gallon equalization tank. Two fluidized bed bioreactors (FBBRs) installed downstream of the equalization tank treat fuel oxygenates such as tertiary butyl alcohol (TBA) and methyl tertiary butyl ether (MTBE). The treated groundwater then passes through polishing LGAC units prior to discharge in accordance with the NPDES permit (No. CA0063509, CI No. 7497).

## Summary of Quarterly Operations

Approximately 1,053,504 gallons of groundwater was extracted during the fourth quarter 2011. This total includes groundwater extracted from the south-central and southeastern areas. No water was extracted from the WSB area. Table 1 summarizes the average daily flow rate during the reporting period. Remediation of the south-central and southeastern areas was performed throughout the quarter, with the following exceptions:

- On October 2 and 4, 2011, the system was off on arrival due to a high level in the transfer tank, likely caused by clogged bag filters. On October 2, 2011, the bag filters were replaced and the system was restarted the same day. On October 4, 2011, the bag filters were also replaced. However, due to the semiannual groundwater sampling, the system was not restarted until October 13, 2011.
- From October 28 through October 31, 2011, the system was turned off due to repairs of the conveyance pipes on the treatment pad.
- Throughout the month of October 2011, the TFE/GWE would turn off occasionally due to a high water level in the equalization tank. The high level in the equalization tank was due to decreased flow through the FBBR (TBA) treatment system, as a result of plugging of the lead LGAC polishing vessel. It is believed that the solidification in the lead carbon vessel is a result of carbonates precipitating from the pretreated groundwater. Adjustments to the pH of the pretreated groundwater have been implemented in order to reduce the formation of these carbonate precipitates.

- On November 4, 2011, the TFE/GWE system was off on arrival due to a high level in the transfer tank, which was caused by the bag filters downstream of the OWS being clogged. The bag filters were replaced and the system was restarted the same day.
- On November 7 and 8, 2011, the system was down on arrival due to water in the product tank. The air vent for the transfer tank was blocked, which caused water to go into the product tank instead of being treated by the TFE/GWE system. The vent was repaired on November 8, 2011. The system stayed off to connect the new southeastern influent flowmeter, total influent flowmeter, and total effluent flowmeter to a separate power source from the TFE/GWE and SVE systems. The system was restarted on November 15, 2011.
- On November 27, 2011, the system was turned off to drain the 9,000-gallon equalization tank so that it could be moved and replaced with the 3,000-gallon equalization tank. The system was restarted on December 2, 2011.
- On December 13, 2011, the TFE/GWE system was turned off to replace the carbon from the two polishing LGAC vessels. The system was restarted the same day.
- On December 24, 2011, the TFE/GWE system was off on arrival due to a high level in the transfer tank, which was caused by the bag filters downstream of the OWS being clogged. The bag filters were replaced and the system was restarted the same day.
- The system was shut down between December 30, 2011, and January 3, 2012, due to malfunctioning of the digital chart recorder, which records daily effluent flow. The system was restarted on January 3, 2012, and the chart recorder repaired on January 6, 2012.

## Routine Effluent Monitoring

Effluent water samples were collected pursuant to the Waste Discharge Requirements (WDRs) under Order No. R4-2011-0095. Samples were collected at the Order-designated monitoring point EFF-001 (Remediation System Effluent) and RSW-001 (Receiving Water monitoring location 50 feet upstream of Coyote Creek).

Samples were transported to Advanced Technology Laboratories (ATL) in Las Vegas, Nevada, for analysis. ATL is certified by the National Environmental Laboratory Accreditation Program and the California Department of Health Services Environmental Laboratory Accreditation Program. The samples were analyzed in accordance with current United States Environmental Protection Agency (EPA) guidelines or as specified in the WDRs for the site. Analytical results for the monthly and quarterly effluent monitoring are summarized in Table 2. Analytical results for the remaining priority pollutants are summarized in Table 3. Remaining priority pollutants are required to be sampled from the remediation system effluent on a quarterly basis for the initial 2 years of the NPDES permit. After the initial 2 years, remaining priority pollutants are to be monitored on an annual basis. Analytical results for receiving water monitoring, 50 feet upstream of the discharge to Coyote Creek, are summarized in Table 4. Table 5 displays the tetrachlorodibenzodioxin (TCDD)-equivalent calculation for both the effluent sample collected on November 7, 2011, and the receiving water sample collected on December 13, 2011.

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Chronic and acute toxicity samples were collected from the remediation system effluent in December 2011. This event served as the first required annual toxicity testing under the new WDRs. Analytical results are presented in Table 6. Per Section V-B, Attachment E of the WDRs, chronic toxicity screening is also required for the first 3 consecutive months during the first required toxicity testing to determine the most sensitive species. Allowable species for the screening include a vertebrate, an invertebrate, and a plant. After the screening period, monitoring will be conducted using the most sensitive species.

The chronic toxicity testing that was conducted in December 2011, therefore, serves as the first of three chronic toxicity tests that are required during the 3-month screening period. As discussed with Mr. Mazhar Ali of the Regional Water Quality Control Board (RWQCB) on January 25, 2012, implementation of the Initial Toxicity Reduction Evaluation (TRE) Work Plan would not be required if any chronic toxicity trigger is exceeded during the screening period. The Initial TRE Work Plan was previously submitted to the RWQCB on September 30, 2011.

Laboratory analytical reports and chain-of-custody documents are included in Appendix A.

## Summary of Compliance Results

As shown in Table 2 the results of the monthly and quarterly effluent monitoring indicate that all discharge limitations were met during the reporting period. In addition, chronic and acute toxicity triggers were not exceeded for the annual toxicity samples collected in December 2011 (Table 6).

One additional chronic toxicity screening sample was collected in early February 2012 as part of the chronic toxicity screening described above. Results have not yet been received but will be presented in the next quarterly self-monitoring report. A chronic toxicity screening sample was not collected in January 2012 due to operational issues with the groundwater treatment system. It is anticipated that the third and final toxicity screening sample will be collected in March 2012.

## Waste Hauling

Approximately 1,200 gallons of nonhazardous waste liquid from well redevelopment activities was removed from the site on October 21, 2011, by Belshire Environmental Services, Inc. (25971 Towne Centre Drive, Foothill Ranch, California 92610). The water was transported to DeMenno/Kerdoon at 2000 North Alameda Street, Compton, California 90222.

Also on October 21, 2011, spent carbon was removed from the site by Prominent Systems, Inc. (Prominent) (13095 East Temple Avenue, City of Industry, California 91746-1418). Prominent transported approximately 2,000 pounds of spent carbon to California Carbon Company at 2825 East Grant Street, Wilmington, California 90744.

On December 13, 2011, approximately 4,000 pounds of spent carbon was removed from the site by Prominent and transported to California Carbon Company at 2825 East Grant Street, Wilmington, California 90744. Copies of the waste manifests are included in Appendix B.

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Should you require any further information, please contact me at (714) 435-6017.

Sincerely,

CH2M HILL, Inc.



Vladimir Carino  
Project Engineer

Attachments:

- Table 1 - Effluent Flow Rate Measurements, Fourth Quarter 2011
- Table 2 - NPDES Effluent Monitoring, Fourth Quarter 2011
- Table 3 - NPDES Effluent Monitoring, Remaining Priority Pollutants
- Table 4 - NPDES Receiving Water Monitoring, Fourth Quarter 2011
- Table 5 - TCDD Equivalent Calculation
- Table 6 - NPDES Chronic and Acute Toxicity Monitoring
- Appendix A - Laboratory Analytical Reports and Chain of Custody Documents
- Appendix B - Waste Manifests

## **Tables**

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**TABLE 1**  
**Effluent Flow Rate Measurements<sup>1</sup>**  
**Fourth Quarter 2011**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Date	Average Flow Rate (gallons per day)
<b>Discharge Limits<sup>3</sup></b>	
<b>Maximum Daily</b>	<b>150,000</b>
<b>Results</b>	
10/1/2011	33,450
10/2/2011	32,860
10/3/2011	16,080
10/4/2011	0
10/5/2011	0
10/6/2011	0
10/7/2011	0
10/8/2011	0
10/9/2011	0
10/10/2011	0
10/11/2011	0
10/12/2011	0
10/13/2011	0
10/14/2011	26,350
10/15/2011	33,210
10/16/2011	20,600
10/17/2011	15,210
10/18/2011	10,100
10/19/2011	28,490
10/20/2011	32,560
10/21/2011	26,950
10/22/2011	26,420
10/23/2011	34,680
10/24/2011	33,440
10/25/2011	33,150
10/26/2011	11,270
10/27/2011	950
10/28/2011	7,390
10/29/2011	0
10/30/2011	0
10/31/2011	1,860
11/1/2011	34,820
11/2/2011	28,650
11/3/2011	31,910
11/4/2011	32,820
11/5/2011	26,310
11/6/2011	1,290
11/7/2011	0
11/8/2011	18,090
11/9/2011	0
11/10/2011	0
11/11/2011	0
11/12/2011	0
11/13/2011	0
11/14/2011	0
11/15/2011	0
11/16/2011	16,413
11/17/2011	15,591
11/18/2011	11,981
11/19/2011	15,412

**TABLE 1**  
**Effluent Flow Rate Measurements<sup>1</sup>**  
**Fourth Quarter 2011**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Date	Average Flow Rate (gallons per day)
<b>Discharge Limits<sup>3</sup></b>	
<b>Maximum Daily</b>	150,000
<b>Results</b>	
11/20/2011	16,381
11/21/2011	16,265
11/22/2011	15,850
11/23/2011	14,241
11/24/2011	13,408
11/25/2011	1,926
11/26/2011	1
11/27/2011	0
11/28/2011	4,845
11/29/2011	439
11/30/2011	3
12/1/2011	1
12/2/2011	0
12/3/2011	3,896
12/4/2011	7,723
12/5/2011	6,640
12/6/2011	5,796
12/7/2011	11,584
12/8/2011	14,504
12/9/2011	14,158
12/10/2011	11,499
12/11/2011	11,089
12/12/2011	11,240
12/13/2011	9,770
12/14/2011	14,611
12/15/2011	7,507
12/16/2011	6,707
12/17/2011	5,620
12/18/2011	4,786
12/19/2011	4,720
12/20/2011	3,700
12/21/2011	13,207
12/22/2011	21,290
12/23/2011	21,374
12/24/2011	21,038
12/25/2011	13,502
12/26/2011	16,873
12/27/2011	16,179
12/28/2011	16,412 <sup>2</sup>
12/29/2011	16,412 <sup>2</sup>
12/30/2011	0
12/31/2011	0

Notes

1. Data reported based on the onsite chart recorder.
2. The chart recorder was inoperable from December 28, 2011 to January 3, 2011.  
Therefore, flow data were averaged based on field readings provided by SFPP, L.P.
3. California Regional Water Quality Control Board Waste Discharge Requirements (WDRs).

**TABLE 2**  
**NPDES Effluent Monitoring**  
**Fourth Quarter 2011**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Analyte	Sampling Frequency	Analytical Method	Units	MDL	RL	ML <sup>1</sup>							Discharge Limits <sup>2</sup>	
							10/21/2011	10/25/2011	11/7/2011	11/22/2011	12/13/2011	12/16/2011	Monthly Average	Daily Maximum
Temperature	Monthly	--	°F	--	--	NE	--	74	--	71.7	--	63.2	--	86
Oil and Grease	Monthly	EPA 1664A	mg/L	0.95	4.1	NE	<0.95	--	<0.97	--	<1.0	--	10	15
TPH as gas (C4-C12)	Monthly	EPA 8015B	µg/L	6	100	NE	<6.0	--	<6.0	--	<6.0	--	--	--
TPH as Diesel (C13-C22)	Monthly	EPA 8015B	µg/L	13	50	NE	<13	--	<13	--	<13	--	--	--
TPH as Oil (C23+)	Monthly	EPA 8015B	µg/L	9.6	50	NE	<9.6	--	<9.6	--	11 J	--	--	--
Total TPH	Monthly	--	µg/L	--	--	NE	<13	--	<13	--	<13	--	NE	100
Settleable Solids	Monthly	SM 2540F	mL/L/hr	--	0.1	NE	<0.097	--	<0.1	--	<0.1	--	0.1	0.3
Total Suspended Solids	Monthly	SM 2540D	mg/L	10	10	NE	<10	--	<10	--	<10	--	50	75
Phenol	Monthly	EPA 420.1	µg/L	20	30	50	<30	--	<20	--	<15	--	300	NE
Benzene	Monthly	EPA 8260B	µg/L	0.075	1	2.0	<0.075	--	<0.075	--	<0.075	--	1	NE
1,1-Dichloroethane	Monthly	EPA 8260B	µg/L	0.099	0.5	1.0	<0.099	--	<0.099	--	<0.099	--	5	NE
1,2-Dichloroethane	Monthly	EPA 8260B	µg/L	0.17	0.5	2.0	<0.17	--	<0.17	--	<0.17	--	0.5	NE
Ethylbenzene	Monthly	EPA 8260B	µg/L	0.051	1	2.0	<0.051	--	<0.051	--	<0.051	--	10	NE
Toluene	Monthly	EPA 8260B	µg/L	0.12	2	2.0	<0.12	--	<0.12	--	<0.12	--	10	NE
Methyl tertiary-butyl ether	Monthly	EPA 8260B	µg/L	0.089	1	NE	<0.089	--	<0.089	--	<0.089	--	NE	5.0
Tertiary butyl alcohol	Monthly	EPA 8260B	µg/L	1.2	5	NE	<1.2	--	<1.2	--	<1.2	--	NE	150 <sup>3</sup>
Total Xylenes	Monthly	EPA 8260B	µg/L	1.5	2	NE	<1.5	--	<0.17	--	<0.17	--	10	NE
Copper (total recoverable) (dry weather)	Monthly	200.8	µg/L	0.01	0.5	0.5	0.82	--	1.7	--	<0.01	--	16	33
Copper (total recoverable) (wet weather)	Monthly	200.8	µg/L	0.01	0.5	0.5	0.82	--	1.7	--	<0.01	--	13	27
Lead (total recoverable) (dry weather)	Monthly	200.8	µg/L	0.021	0.5	0.5	0.083J	--	<0.11	--	<0.021	--	8.2	15
Lead (total recoverable) (wet weather)	Monthly	200.8	µg/L	0.021	0.5	0.5	0.083J	--	<0.11	--	<0.021	--	34	106
Mercury (total recoverable)	Monthly	EPA 245.1	µg/L	0.023	0.05	0.2	<0.023	--	<0.023	--	<0.026	--	0.051	0.14
Selenium (total recoverable)	Monthly	200.8	µg/L	0.018	0.5	2.0	<0.50	--	0.16J	--	0.08 J	--	3.4	9.2
Thallium (total recoverable)	Monthly	200.8	µg/L	0.043	0.5	1.0	<0.043	--	<0.22	--	<0.043	--	6.3	13
Zinc (total recoverable) (wet weather)	Monthly	200.8	µg/L	0.16	10	1.0	15	--	13	--	4.0 J	--	79	158
Chromium VI	Monthly	7199	µg/L	0.014	0.2	0.5	<0.028	--	<0.014	--	<0.014	--	8.1	16
pH	Quarterly	--	s.u.	--	--	NE	--	7.2	--	7.37	7.26	--	--	6.5/8.5
Ammonia Nitrogen (as N)	Quarterly	SM-4500 NH3C	mg/L	0.03	0.1	NE	--	--	0.052J	--	--	--	NE	NE
Di-isopropyl Ether	Quarterly	EPA 8260B	µg/L	0.072	1	NE	--	--	<0.072	--	--	--	NE	NE
Methylene Blue Active Substances	Quarterly	SM 5540C	µg/L	--	50	NE	--	--	60	--	--	--	NE	NE
Tert-amyl-methyl Ether	Quarterly	EPA 8260B	µg/L	0.1	1	NE	--	--	<0.10	--	--	--	NE	NE
Turbidity	Quarterly	SM2130B	NTU	0.1	0.1	NE	--	--	0.13	--	--	--	50	75
Methyl ethyl ketone	Quarterly	EPA 8260B	µg/L	1	10	NE	--	--	<1	--	--	--	50	NE
Other Priority Pollutants	Quarterly	--	See Table 3	--	--	--	--	--	--	--	--	--	NE	NE
BOD	Annually	SM5210B	mg/l	--	5	NE	--	--	--	--	<5.0	--	20	30
Nitrate + Nitrite as N	Annually	EPA 300.0	mg/l	0.011, 0.014	0.1	NE	--	--	--	--	0.98, <0.012	--	NE	NE
Sulfides	Annually	SM 4500 S2-D	mg/l	--	0.010	NE	--	--	--	--	<0.01	--	NE	NE
TCDD Equivalents <sup>4</sup>	Annually	Calculated	pg/L	--	--	NE	--	--	8.9	--	--	--	NE	NE

**Notes**

1. State Water Resources Control Board Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

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

3. 150 µg/L discharge limit for selenium is per Time Schedule Order

4. See Table 5 for calculation of TCDD Equivalents

-- = not measured or not analyzed.

**Abbreviations**

BOD = biological oxygen demand (5 days at 20 degrees Celsius)

deg F = degrees Fahrenheit

DNQ = detected, but not quantified. Result is greater than or equal to the laboratory MDL but less than the ML (or RL if no ML is listed)

J = detected at a concentration below the RL and above the MDL. Reported value is estimated.

mg/L = milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

MDL = laboratory method detection limit

ML = minimum level. See note 1.

ND = not detected above the MDL listed

NE = not established

RL = laboratory reporting limit

TPH = total petroleum hydrocarbons

ml/L/hr = milliliters per liter per hour

NTU = nephelometric turbidity units

**TABLE 3**  
**NPDES Effluent Monitoring**  
**Remaining Priority Pollutants**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Analyte	Analytical Method	Units	MDL	RL	11/7/2011	ML <sup>1</sup>
Antimony	200.8	µg/L	0.019	0.50	0.13 J	0.50
Arsenic	200.8	µg/L	0.01	0.10	14	2
Beryllium	200.8	µg/L	0.0090	0.50	0.034 J	0.50
Cadmium	200.8	µg/L	0.020	0.50	<0.020	0.25
Nickel	200.8	µg/L	0.086	1.0	0.33 J	1
Silver	200.8	µg/L	0.0250	2.50	0.17 J	0.25
Total Chromium	200.8	µg/L	0.0080	0.50	0.35 J	0.50
Chromium (III) (Total Cr - Cr VI)	Calculated	µg/L	NA	NA	0.35 J	NA
Aroclor-1016	8082	µg/L	0.070	0.50	<0.070	0.5
Aroclor-1221	8082	µg/L	0.23	1.00	<0.23	0.5
Aroclor-1232	8082	µg/L	0.12	0.50	<0.12	0.5
Aroclor-1242	8082	µg/L	0.13	0.50	<0.13	0.5
Aroclor-1248	8082	µg/L	0.070	0.50	<0.070	0.5
Aroclor-1254	8082	µg/L	0.070	0.50	<0.070	0.5
Aroclor-1260	8082	µg/L	0.050	0.50	<0.050	0.5
4,4'-DDD	8081 A	µg/L	0.005	0.050	<0.005	0.05
4,4'-DDE	8081 A	µg/L	0.005	0.050	<0.005	0.05
4,4'-DDT	8081 A	µg/L	0.005	0.050	<0.005	0.01
Aldrin	8081 A	µg/L	0.0042	0.025	<0.0042	0.005
Alpha Endosulfan	8081 A	µg/L	0.0037	0.025	<0.0037	0.02
Alpha-BHC	8081 A	µg/L	0.0045	0.025	<0.0045	0.01
Beta Endosulfan	8081 A	µg/L	0.0045	0.050	<0.0045	0.01
Beta-BHC	8081 A	µg/L	0.0034	0.025	<0.0034	0.005
Chlordane	8081 A	µg/L	0.041	0.25	<0.041	0.1
Delta-BHC	8081 A	µg/L	0.0042	0.025	<0.0042	0.005
Dieldrin	8081 A	µg/L	0.0047	0.050	<0.0047	0.01
Endosulfan Sulfate	8081 A	µg/L	0.0065	0.050	<0.0065	0.05
Endrin	8081 A	µg/L	0.0034	0.050	<0.0034	0.01
Endrin Aldehyde	8081 A	µg/L	0.0042	0.050	<0.0042	0.01
Gamma-BHC	8081 A	µg/L	0.0042	0.025	<0.0042	0.02
Heptachlor	8081 A	µg/L	0.0049	0.025	<0.0049	0.01
Heptachlor Epoxide	8081 A	µg/L	0.0048	0.025	<0.0048	0.01
Toxaphene	8081 A	µg/L	0.26	2.5	<0.26	0.5
1,1,1-Trichloroethane	8260B	µg/L	0.068	1.0	<0.068	2
1,1,2,2-Tetrachloroethane	8260B	µg/L	0.054	1.0	<0.054	1
1,1,2-Trichloroethane	8260B	µg/L	0.083	1.0	<0.083	2
1,1-Dichloroethene	8260B	µg/L	0.094	1.0	<0.094	2
1,2,4-Trichlorobenzene	8260B	µg/L	0.12	1.0	<0.12	5
1,2-Dichlorobenzene	8260B	µg/L	0.070	1.0	<0.070	2
1,2-Dichloropropane	8260B	µg/L	0.085	1.0	<0.085	1
1,3-Dichlorobenzene	8260B	µg/L	0.090	1.0	<0.090	1
1,4-Dichlorobenzene	8260B	µg/L	0.092	1.0	<0.092	1
2-Chloroethyl Vinyl Ether	8260B	µg/L	0.14	1.0	<0.14	1
Acrolein	8260B	µg/L	4.3	20	<4.3	5
Acrylonitrile	8260B	µg/L	0.61	20	<0.61	2
Bromodichloromethane	8260B	µg/L	0.063	1.0	<0.063	2
Bromoform	8260B	µg/L	0.086	1.0	<0.086	2
Bromomethane	8260B	µg/L	0.13	1	<0.13	2
c-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	<0.10	2
Carbon Tetrachloride	8260B	µg/L	0.10	1.0	<0.10	2
Chlorobenzene	8260B	µg/L	0.092	1.0	<0.092	2
Chloroethane	8260B	µg/L	0.14	1.0	<0.14	2
Chloroform	8260B	µg/L	0.058	1.0	<0.058	2
Chloromethane	8260B	µg/L	0.054	1.0	<0.054	2
Dibromochloromethane	8260B	µg/L	0.061	1.0	<0.061	2
Hexachlorobutadiene	8260B	µg/L	0.17	1	<0.17	1
Methylene Chloride	8260B	µg/L	0.10	2.0	<0.10	2
Naphthalene	8260B	µg/L	0.056	1	<0.056	1
t-1,2-Dichloroethene	8260B	µg/L	0.094	1.0	<0.094	1
t-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	<0.10	2
Tetrachloroethene	8260B	µg/L	0.13	1.0	<0.13	2
Trichloroethene	8260B	µg/L	0.060	1.0	<0.060	2
Vinyl Chloride	8260B	µg/L	0.12	1.0	<0.12	2

**TABLE 3**  
**NPDES Effluent Monitoring**  
**Remaining Priority Pollutants**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Analyte	Analytical Method	Units	MDL	RL	11/7/2011	ML <sup>1</sup>
1,2-Diphenylhydrazine	8270C	µg/L	3.6	10	<3.6	1
2,4,6-Trichlorophenol	8270C	µg/L	4.5	10	<4.5	10
2,4-Dichlorophenol	8270C	µg/L	4.3	10	<4.3	5
2,4-Dimethylphenol	8270C	µg/L	3.6	10	<3.6	2
2,4-Dinitrophenol	8270C	µg/L	3.3	50	<3.3	5
2,4-Dinitrotoluene	8270C	µg/L	3.8	10	<3.8	5
2,6-Dinitrotoluene	8270C	µg/L	4.0	10	<4.0	5
2-Chloronaphthalene	8270C	µg/L	4.0	10	<4.0	10
2-Chlorophenol	8270C	µg/L	3.7	10	<3.7	5
2-Nitrophenol	8270C	µg/L	4.7	10	<4.7	10
3,3'-Dichlorobenzidine	8270C	µg/L	3.6	20	<3.6	5
4,6-Dinitro-2-Methylphenol	8270C	µg/L	2.9	50	<2.9	5
4-Bromophenyl-Phenyl Ether	8270C	µg/L	3.9	10	<3.9	5
4-Chloro-3-Methylphenol	8270C	µg/L	3.4	50	<3.4	1
4-Chlorophenyl-Phenyl Ether	8270C	µg/L	3.5	10	<3.5	5
4-Nitrophenol	8270C	µg/L	1.5	50	<1.5	10
Acenaphthene	8270C	µg/L	4.2	10	<4.2	1
Acenaphthylene	8270C	µg/L	3.9	10	<3.9	10
Anthracene	8270C	µg/L	3.7	10	<3.7	10
Benzidine	8270C	µg/L	2.3	50	<2.3	5
Benzo (a) Anthracene	8270C	µg/L	5.2	10	<5.2	5
Benzo (a) Pyrene	8270C	µg/L	5.5	10	<5.5	10
Benzo (b) Fluoranthene	8270C	µg/L	5.7	10	<5.7	10
Benzo (g,h,i) Perylene	8270C	µg/L	5.8	10	<5.8	5
Benzo (k) Fluoranthene	8270C	µg/L	5.4	10	<5.4	10
Bis(2-Chloroethoxy) Methane	8270C	µg/L	4.6	10	<4.6	5
Bis(2-Chloroethyl) Ether	8270C	µg/L	5.5	10	<5.5	1
Bis(2-Chloroisopropyl) Ether	8270C	µg/L	4.3	10	<4.3	2
Bis(2-Ethylhexyl) Phthalate	8270C	µg/L	2.7	10	<2.7	5
Butyl Benzyl Phthalate	8270C	µg/L	3.4	10	<3.4	10
Chrysene	8270C	µg/L	2.3	10	<2.3	10
Dibenz (a,h) Anthracene	8270C	µg/L	5.7	10	<5.7	10
Diethyl Phthalate	8270C	µg/L	3.3	10	<3.3	2
Dimethyl Phthalate	8270C	µg/L	3.7	10	<3.7	2
Di-n-Butyl Phthalate	8270C	µg/L	3.0	10	<3.0	10
Di-n-Octyl Phthalate	8270C	µg/L	3.0	10	<3.0	10
Fluoranthene	8270C	µg/L	3.1	10	<3.1	1
Fluorene	8270C	µg/L	3.6	10	<3.6	10
Hexachlorobenzene	8270C	µg/L	4.0	10	<4.0	1
Hexachlorocyclopentadiene	8270C	µg/L	4.4	10	<4.4	5
Hexachloroethane	8270C	µg/L	4.7	10	<4.7	1
Indeno (1,2,3-c,d) Pyrene	8270C	µg/L	5.6	10	<5.6	10
Isophorone	8270C	µg/L	4.4	10	<4.4	1
Nitrobenzene	8270C	µg/L	4.6	10	<4.6	1
N-Nitrosodimethylamine	8270C	µg/L	3.1	50	<3.1	5
N-Nitroso-di-n-propylamine	8270C	µg/L	5.1	10	<5.1	5
N-Nitrosodiphenylamine	8270C	µg/L	4.0	10	<4.0	1
Pentachlorophenol	8270C	µg/L	3.0	50	<3.0	5
Phenanthrene	8270C	µg/L	3.7	50	<3.7	5
Phenol	8270C	µg/L	1.5	10	<1.5	1
Pyrene	8270C	µg/L	3.2	10	<3.2	10
2,3,7,8-TCDD	8290	pg/L	3.3	50	<3.3	NE
Asbestos	EPA 600 94 134, 100.1	MFL	1.1	1.1	<1.1	NE
Cyanide (Total)	SM 4500 CN-E	mg/L	0.006	0.010	<0.006	NE

Notes

- State Water Resources Control Board Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Abbreviations

DNQ = detected, but not quantified. Result is greater than or equal to the laboratory MDL but less than the ML (or RL if no ML is listed)

J = detected at a concentration below the RL and above the MDL. Reported value is estimated.

MDL = laboratory method detection limit

ML = minimum level

mg/L = milligrams per liter

µg/L = micrograms per liter

ND = not-detected above the MDL listed

NE = not established

MFL = millions of fibers per liter

pg/L = picograms per liter

RL = laboratory reporting limit

**TABLE 4**  
**NPDES Receiving Water Monitoring**  
**Fourth Quarter 2011**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Analyte	Analytical Method	Units	MDL	RL	12/13/2011	ML <sup>1</sup>
pH	SM 4500 H+B	s.u.	0.1	0.10	8.8	NE
Temperature	Grab	°F	--	--	64.5	NE
Hardness (as CaCO <sub>3</sub> )	SM 2340 B	mg/L	1	1	120	NE
Antimony	200.8	µg/L	0.019	0.50	1.3	0.50
Arsenic	200.8	µg/L	0.0025	0.10	2.20	2
Beryllium	200.8	µg/L	0.0090	0.50	0.018J	0.50
Cadmium	200.8	µg/L	0.020	0.25	<0.020	0.25
Copper	200.8	µg/L	0.010	0.50	9	0.50
Lead	200.8	µg/L	0.021	0.50	2.5	0.5
Mercury	245.1	µg/L	0.026	0.05	<0.026	0.2
Nickel	200.8	µg/L	0.086	1.0	3.2	1
Selenium	200.8	µg/L	0.018	0.50	1.1	2
Silver	200.8	µg/L	0.0050	0.25	<0.0050	0.25
Thallium	200.8	µg/L	0.043	0.50	<0.043	1
Total Chromium	200.8	µg/L	0.008	0.50	1.60	0.50
Zinc	200.8	µg/L	0.16	10	31	1
Chromium (VI)	7199	µg/L	0.014	0.20	0.53	0.50
Chromium (III) (Total Cr - Cr VI)	Calculated	µg/L	--	--	1.07	NA
Aroclor-1016	8082	µg/L	0.072	0.52	<0.072	0.5
Aroclor-1221	8082	µg/L	0.24	1.0	<0.24	0.5
Aroclor-1232	8082	µg/L	0.12	0.52	<0.12	0.5
Aroclor-1242	8082	µg/L	0.13	0.52	<0.13	0.5
Aroclor-1248	8082	µg/L	0.072	0.52	<0.072	0.5
Aroclor-1254	8082	µg/L	0.072	0.52	<0.072	0.5
Aroclor-1260	8082	µg/L	0.052	0.52	<0.052	0.5
4,4'-DDD	8081 A	µg/L	0.0052	0.052	<0.0052	0.05
4,4'-DDE	8081 A	µg/L	0.0052	0.052	<0.0052	0.05
4,4'-DDT	8081 A	µg/L	0.0052	0.052	<0.0052	0.01
Aldrin	8081 A	µg/L	0.0044	0.026	<0.0044	0.005
Alpha Endosulfan	8081 A	µg/L	0.0038	0.026	<0.0038	0.02
Alpha-BHC	8081 A	µg/L	0.0046	0.026	<0.0046	0.01
Beta Endosulfan	8081 A	µg/L	<0.0047	0.052	<0.0047	0.01
Beta-BHC	8081 A	µg/L	0.0035	0.026	<0.0035	0.005
Chlordane	8081 A	µg/L	0.043	0.26	<0.043	0.1
Delta-BHC	8081 A	µg/L	0.0043	0.026	<0.0043	0.005
Dieldrin	8081 A	µg/L	0.0048	0.052	<0.0048	0.01
Endosulfan Sulfate	8081 A	µg/L	0.0067	0.052	<0.0067	0.05
Endrin	8081 A	µg/L	0.0035	0.052	<0.0035	0.01
Endrin Aldehyde	8081 A	µg/L	0.0043	0.052	<0.0043	0.01
Gamma-BHC	8081 A	µg/L	0.0043	0.026	<0.0043	0.02
Heptachlor	8081 A	µg/L	0.0051	0.026	<0.0051	0.01
Heptachlor Epoxide	8081 A	µg/L	0.0050	0.026	<0.0050	0.01
Toxaphene	8081 A	µg/L	0.27	2.6	<0.27	0.5
1,1,1-Trichloroethane	8260B	µg/L	0.068	1.0	<0.068	2
1,1,2,2-Tetrachloroethane	8260B	µg/L	0.054	1.0	<0.054	1
1,1,2-Trichloroethane	8260B	µg/L	0.083	1.0	<0.083	2
1,1-Dichloroethane	8260B	µg/L	0.099	0.5	<0.099	1
1,1-Dichloroethene	8260B	µg/L	0.094	1.0	<0.094	2
1,2,4-Trichlorobenzene	8260B	µg/L	0.12	1.0	<0.12	5
1,2-Dichlorobenzene	8260B	µg/L	0.07	1.0	<0.07	2
1,2-Dichloroethane	8260B	µg/L	0.17	1.0	<0.17	2
1,2-Dichloropropane	8260B	µg/L	0.085	1.0	<0.085	1
1,3-Dichlorobenzene	8260B	µg/L	0.09	1.0	<0.09	1
1,4-Dichlorobenzene	8260B	µg/L	0.092	1.0	<0.092	1
2-Chloroethyl Vinyl Ether	8260B	µg/L	0.14	1.0	<0.14	1
Acrolein	8260B	µg/L	4.3	20	<4.3	5
Acrylonitrile	8260B	µg/L	0.61	20	<0.61	2
Benzene	8260B	µg/L	0.075	1.0	<0.075	2
Bromodichloromethane	8260B	µg/L	0.063	1.0	<0.063	2
Bromoform	8260B	µg/L	0.086	1.0	<0.086	2
Bromomethane	8260B	µg/L	0.13	1.0	<0.13	2
c-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	<0.10	2
Carbon Tetrachloride	8260B	µg/L	0.10	1.0	<0.10	2
Chlorobenzene	8260B	µg/L	0.092	1.0	<0.092	2

**TABLE 4**  
**NPDES Receiving Water Monitoring**  
**Fourth Quarter 2011**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Analyte	Analytical Method	Units	MDL	RL	12/13/2011	ML <sup>1</sup>
Chloroethane	8260B	µg/L	0.14	1.0	<0.14	2
Chloroform	8260B	µg/L	0.058	1.0	<0.058	2
Chloromethane	8260B	µg/L	0.054	1.0	<0.054	2
Dibromochloromethane	8260B	µg/L	0.061	1.0	<0.061	2
Ethylbenzene	8260B	µg/L	0.051	1.0	<0.051	2
Hexachlorobutadiene	8260B	µg/L	0.17	1.0	<0.17	1
Methylene Chloride	8260B	µg/L	0.10	2.0	<0.10	2
Naphthalene	8260B	µg/L	0.056	1.0	<0.056	1
t-1,2-Dichloroethene	8260B	µg/L	0.094	1.0	<0.094	1
t-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	<0.10	2
Tetrachloroethene	8260B	µg/L	0.13	1.0	<0.13	2
Toluene	8260B	µg/L	0.12	2.0	<0.12	2
Trichloroethene	8260B	µg/L	0.060	1.0	<0.06	2
Vinyl Chloride	8260B	µg/L	0.12	1.0	<0.12	2
1,2,4-Trichlorobenzene	8270C	µg/L	4.5	10	<4.5	5
1,2-Dichlorobenzene	8270C	µg/L	4.9	10	<4.9	2
1,2-Diphenylhydrazine	8270C	µg/L	3.8	10	<3.8	1
1,3-Dichlorobenzene	8270C	µg/L	5.2	10	<5.2	1
1,4-Dichlorobenzene	8270C	µg/L	4.6	10	<4.6	1
2,4,6-Trichlorophenol	8270C	µg/L	4.6	10	<4.6	10
2,4-Dichlorophenol	8270C	µg/L	4.4	10	<4.4	5
2,4-Dimethylphenol	8270C	µg/L	3.7	10	<3.7	2
2,4-Dinitrophenol	8270C	µg/L	3.4	52	<3.4	5
2,4-Dinitrotoluene	8270C	µg/L	3.9	10	<3.9	5
2,6-Dinitrotoluene	8270C	µg/L	4.1	10	<4.1	5
2-Chloronaphthalene	8270C	µg/L	4.2	10	<4.2	10
2-Chlorophenol	8270C	µg/L	3.8	10	<3.8	5
2-Nitrophenol	8270C	µg/L	4.9	10	<4.9	10
3,3'-Dichlorobenzidine	8270C	µg/L	3.7	21	<3.7	5
4,6-Dinitro-2-Methylphenol	8270C	µg/L	3.2	52	<3.2	5
4-Bromophenyl-Phenyl Ether	8270C	µg/L	4.1	10	<4.1	5
4-Chloro-3-Methylphenol	8270C	µg/L	3.6	52	<3.6	1
4-Chlorophenyl-Phenyl Ether	8270C	µg/L	3.6	10	<3.6	5
4-Nitrophenol	8270C	µg/L	1.6	52	<1.6	10
Acenaphthene	8270C	µg/L	4.4	10	<4.4	1
Acenaphthylene	8270C	µg/L	4.0	10	<4.0	10
Anthracene	8270C	µg/L	3.8	10	<3.8	10
Benzidine	8270C	µg/L	2.4	52	<2.4	5
Benzo (a) Anthracene	8270C	µg/L	5.3	10	<5.3	5
Benzo (a) Pyrene	8270C	µg/L	5.7	10	<5.7	10
Benzo (b) Fluoranthene	8270C	µg/L	5.8	10	<5.8	10
Benzo (g,h,i) Perylene	8270C	µg/L	6.0	10	<6.0	5
Benzo (k) Fluoranthene	8270C	µg/L	5.6	10	<5.6	10
Bis(2-Chloroethoxy) Methane	8270C	µg/L	4.7	10	<4.7	5
Bis(2-Chloroethyl) Ether	8270C	µg/L	5.6	10	<5.6	1
Bis(2-Chloroisopropyl) Ether	8270C	µg/L	4.5	10	<4.5	2
Bis(2-Ethylhexyl) Phthalate	8270C	µg/L	2.8	10	<2.8	5
Butyl Benzyl Phthalate	8270C	µg/L	3.5	10	<3.5	10
Chrysene	8270C	µg/L	2.4	10	<2.4	10
Dibenzo (a,h) Anthracene	8270C	µg/L	5.8	10	<5.8	10
Diethyl Phthalate	8270C	µg/L	3.4	10	6.9J	2
Dimethyl Phthalate	8270C	µg/L	3.8	10	<3.8	2
Di-n-Butyl Phthalate	8270C	µg/L	3.1	10	<3.1	10
Di-n-Octyl Phthalate	8270C	µg/L	3.1	10	<3.1	10
Fluoranthene	8270C	µg/L	3.2	10	<3.2	1
Fluorene	8270C	µg/L	3.7	10	<3.7	10
Hexachlorobenzene	8270C	µg/L	4.1	10	<4.1	1
Hexachlorobutadiene	8270C	µg/L	5.2	21	<5.2	1
Hexachlorocyclopentadiene	8270C	µg/L	4.5	10	<4.5	5
Hexachloroethane	8270C	µg/L	4.9	10	<4.9	1
Indeno (1,2,3-c,d) Pyrene	8270C	µg/L	5.8	10	<5.8	10
Isophorone	8270C	µg/L	4.5	10	<4.5	1
Naphthalene	8270C	µg/L	4.6	10	<4.6	1
Nitrobenzene	8270C	µg/L	4.8	10	<4.8	1

**TABLE 4**  
**NPDES Receiving Water Monitoring**  
**Fourth Quarter 2011**  
**SFPP Norwalk Pump Station**  
**Norwalk, California**

Analyte	Analytical Method	Units	MDL	RL	12/13/2011	ML <sup>1</sup>
N-Nitrosodimethylamine	8270C	µg/L	3.2	52	<3.2	5
N-Nitroso-di-n-propylamine	8270C	µg/L	5.2	10	<5.2	5
N-Nitrosodiphenylamine	8270C	µg/L	4.1	10	<4.1	1
Pentachlorophenol	8270C	µg/L	3.0	52	<3.0	5
Phenanthrene	8270C	µg/L	3.8	10	<3.8	5
Phenol	8270C	µg/L	1.6	10	<1.6	1
Pyrene	8270C	µg/L	3.3	10	<3.3	10
2,3,7,8-TCDD	8290	pg/L	2	50	<2.0	NE
TCDD Equivalents <sup>2</sup>	Calculated	pg/L	--	--	0.00011	NE
Asbestos	EPA 600 94 134, 100.1	MFL	1.1	1.1	<1.1	NE
Cyanide (Total)	SM 4500 CN-E	mg/L	0.006	0.01	<0.006	NE

Notes

1. State Water Resources Control Board Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California
2. See Table 5 for calculation of TCDD Equivalents

Abbreviations

- DNQ = detected, but not quantified. Result is greater than or equal to the laboratory MDL but less than the ML  
 (or RL if no ML is listed)  
 J = detected at a concentration below the RL and above the MDL. Reported value is estimated.  
 MDL = laboratory method detection limit  
 ML = minimum level  
 mg/L = milligrams per liter  
 µg/L = micrograms per liter  
 ND = not-detected above the MDL listed  
 NE = not established  
 MFL = millions of fibers per liter  
 pg/L = picograms per liter  
 RL = laboratory reporting limit

**TABLE 5**  
**TCDD Equivalent Calculation**  
SFPP Norwalk Pump Station  
Norwalk, California

Dioxin or Furan Congener <sup>1</sup>	Analysis Method	Units	Effluent Concentration	Receiving Water Concentration	TEF	BEF	Effluent Concentration x TEF x BEF	Receiving Water Concentration x TEF x BEF
1,2,3,4,6,7,8-Hepta CDD	8290	pg/L	<14	<17	0.01	0.05	0.0	0.0
1,2,3,4,6,7,8-Hepta CDF	8290	pg/L	<13	<5.0	0.01	0.01	0.0	0.0
1,2,3,4,7,8,9-Hepta CDF	8290	pg/L	<11	<2.1	0.01	0.4	0.0	0.0
1,2,3,4,7,8-Hexa CDD	8290	pg/L	<6.1	<3.7	0.1	0.3	0.0	0.0
1,2,3,4,7,8-Hexa CDF	8290	pg/L	6.2 J	<2.3	0.1	0.08	0.0496	0.0
1,2,3,6,7,8-Hexa CDD	8290	pg/L	<9.5	<2.4	0.1	0.1	0.0	0.0
1,2,3,6,7,8-Hexa CDF	8290	pg/L	8.6 J	<1.4	0.1	0.2	0.172	0.0
1,2,3,7,8,9-Hexa CDD	8290	pg/L	<11	<2.4	0.1	0.1	0.0	0.0
1,2,3,7,8,9-Hexa CDF	8290	pg/L	11 J	<2.0	0.1	0.6	0.66	0.0
1,2,3,7,8-Penta CDD	8290	pg/L	8.2 J	<2.0	1.0	0.9	7.4	0.0
1,2,3,7,8-Penta CDF	8290	pg/L	<6.6	<0.90	0.05	0.2	0.0	0.0
2,3,4,6,7,8-Hexa CDF	8290	pg/L	9.5 J	<2.4	0.1	0.7	0.665	0.0
2,3,4,7,8-Penta CDF	8290	pg/L	<6.1	<0.98	0.5	1.6	0.0	0.0
2,3,7,8-Tetra CDD	8290	pg/L	<3.3	<2.1	1.0	1.0	0.0	0.0
2,3,7,8-Tetra CDF	8290	pg/L	<3.4	<1.1	0.1	0.8	0.0	0.0
Octa CDD	8290	pg/L	23 J	110 J	0.0001	0.01	0.000023	0.00011
Octa CDF	8290	pg/L	<11	<6.4	0.0001	0.02	0.0	0.0
Tetra CDD-Equivalent							8.9	0.00011

Notes

1. Congeners per California Regional Water Quality Control Board Waste Discharge Requirements (WDRs)

Abbreviations

TEF = toxicity equivalency factor

BEF = bioaccumulation equivalency factor

CDD = chlorodibenzodioxin

CDF = chlordibenzofuran

pg/L = picograms per liter

**TABLE 6**  
**NPDES Chronic and Acute Toxicity Monitoring**  
SFPP Norwalk Pump Station  
Norwalk, California

Analyte	Analysis Method	TRE Trigger <sup>1</sup>	Units	December 20, 2011 M-001 (Effluent)
Chronic - Ceriodaphnia - Survival	821-R-02-013	>1.0	TUc	1.00
Chronic - Ceriodaphnia - Reproduction	821-R-02-013	>1.0	TUc	1.00
Chronic - Selenastrum - Growth	821-R-02-013	>1.0	TUc	1.00
Chronic - Fathead Larvae - Survival	821-R-02-013	>1.0	TUc	1.00
Chronic - Fathead Larvae - Growth	821-R-02-013	>1.0	TUc	1.00
Acute - Fathead Minnow - Survival	821-R-02-012	<90%	% survival	100%

Notes

1. >1.0 = toxicity detected above 1 toxicity unit

Abbreviations

TRE = Toxicity Reduction Evaluation

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

NOEC = No Observable Effect Concentration

## **Appendix A**

### **Laboratory Analytical Reports and Chain of Custody Documents**

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October 25, 2011

Daniel Jablonski  
CH2M HILL  
155 Grand Avenue, Suite 1000  
Oakland, CA 94612  
TEL: (213)228-8271  
FAX: (510) 622-9129

CA-ELAP No.:2676  
NV Cert. No.:NV-009222007A  
Workorder No.: N006671

RE: SFPP - Norwalk Site

Attention: Daniel Jablonski

Enclosed are the results for sample(s) received on October 21, 2011 by Advanced Technology Laboratories, Inc. . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

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

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

Sincerely,

*for Jose Tenorio Jr.*

Jose Tenorio Jr.  
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.



Advanced Technology  
Laboratories, Inc.

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

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006671

**CASE NARRATIVE****SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

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

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

Samples were analyzed within method holding time.

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

**Subcontracted Analyses:**

Settleable Matter by SM 2540F and Phenolics by EPA 420.1 were subcontracted to Advanced Technology Laboratories-Signal Hill, CA .

# Advanced Technology Laboratories, Inc.

Date: 25-Oct-11

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006671

## Work Order Sample Summary

Contract No:

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N006671-001A	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001B	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001C	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001D	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001E	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001F	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001G	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001H	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011
N006671-001I	EFF-10-21	Wastewater	10/21/2011 1:15:00 PM	10/21/2011	10/21/2011

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 25-Oct-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006671  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006671-001

**Client Sample ID:** EFF-10-21  
**Collection Date:** 10/21/2011 1:15:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>TOTAL NON-FILTERABLE RESIDUE</b>							
<b>SM2540D</b>							
RunID: <b>WETCHEM_111025C</b>	QC Batch: <b>38146</b>				PrepDate:	<b>10/25/2011</b>	
Suspended Solids (Residue, Non-Filterable)	ND	10	10		mg/L	1	10/25/2011
<b>OIL &amp; GREASE</b>							
<b>EPA 1664 _HEM</b>							
RunID: <b>WETCHEM_111024D</b>	QC Batch: <b>38136</b>				PrepDate:	<b>10/24/2011</b>	
Oil & Grease	ND	0.95	4.1		mg/L	1	10/24/2011
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
<b>EPA 8260B</b>							
RunID: <b>MS1_111024A</b>	QC Batch: <b>D11VW156</b>				PrepDate:		
1,1-Dichloroethane	ND	0.099	0.50		µg/L	1	10/24/2011 05:55 PM
1,2-Dichloroethane	ND	0.17	0.50		µg/L	1	10/24/2011 05:55 PM
Benzene	ND	0.075	1.0		µg/L	1	10/24/2011 05:55 PM
Ethylbenzene	ND	0.051	1.0		µg/L	1	10/24/2011 05:55 PM
m,p-Xylene	ND	0.17	1.0		µg/L	1	10/24/2011 05:55 PM
MTBE	ND	0.089	1.0		µg/L	1	10/24/2011 05:55 PM
o-Xylene	ND	0.077	1.0		µg/L	1	10/24/2011 05:55 PM
Tert-Butanol	ND	1.2	5.0		µg/L	1	10/24/2011 05:55 PM
Toluene	ND	0.12	2.0		µg/L	1	10/24/2011 05:55 PM
Xylenes, Total	ND	1.5	2.0		µg/L	1	10/24/2011 05:55 PM
Surr: 1,2-Dichloroethane-d4	79.4	0	72-119	%REC		1	10/24/2011 05:55 PM
Surr: 4-Bromofluorobenzene	107	0	76-119	%REC		1	10/24/2011 05:55 PM
Surr: Dibromofluoromethane	89.3	0	85-115	%REC		1	10/24/2011 05:55 PM
Surr: Toluene-d8	110	0	81-120	%REC		1	10/24/2011 05:55 PM
<b>TPH-FUEL PRODUCT BY GC/FID</b>							
<b>EPA 3510C</b>				<b>EPA 8015B</b>			
RunID: <b>GC3_111024A</b>	QC Batch: <b>38126</b>				PrepDate:		
TPH-Diesel (C13-C22)	ND	13	50		ug/L	1	10/24/2011 02:56 PM
TPH-Oil (C23-C36)	ND	9.6	50		ug/L	1	10/24/2011 02:56 PM
Surr: Octacosane	84.9	0	26-152		%REC	1	10/24/2011 02:56 PM
Surr: p-Terphenyl	90.8	0	57-132		%REC	1	10/24/2011 02:56 PM
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>							
<b>EPA 8015B</b>							
RunID: <b>GC4_111024B</b>	QC Batch: <b>E11VW057</b>				PrepDate:		

**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



**Advanced Technology  
Laboratories, Inc.**

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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 25-Oct-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006671  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006671-001

**Client Sample ID:** EFF-10-21  
**Collection Date:** 10/21/2011 1:15:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>							
<b>EPA 8015B</b>							
RunID: <b>GC4_111024B</b>	QC Batch: <b>E11VW057</b>			PrepDate:			<b>Analyst: QBM</b>
TPH-Gasoline (C4-C12)	ND	6.0	100	µg/L	1	10/24/2011	
Surr: Chlorobenzene - d5	96.2	0	74-138	%REC	1	10/24/2011	
<b>HEXAVALENT CHROMIUM BY IC</b>							
<b>EPA 7199</b>							
RunID: <b>IC1_111022A</b>	QC Batch: <b>R81909</b>			PrepDate:			<b>Analyst: QBM</b>
Hexavalent Chromium	ND	0.028	0.20	µg/L	1	10/22/2011 10:12 AM	
<b>MERCURY BY COLD VAPOR TECHNIQUE</b>							
<b>EPA 245.1</b>							
RunID: <b>AA1_111024A</b>	QC Batch: <b>38125</b>			PrepDate:	<b>10/23/2011</b>		<b>Analyst: CEI</b>
Mercury	ND	0.023	0.050	µg/L	1	10/24/2011	
<b>ICPMS METALS</b>							
<b>EPA 200.8</b>							
RunID: <b>ICP7_111023A</b>	QC Batch: <b>38119</b>			PrepDate:	<b>10/22/2011</b>		<b>Analyst: JT</b>
Copper	0.82	0.010	0.50	µg/L	1	10/23/2011 08:47 AM	
Lead	0.083	0.021	0.50	J µg/L	1	10/23/2011 08:47 AM	
Thallium	ND	0.043	0.50	µg/L	1	10/23/2011 08:47 AM	
Zinc	15	0.16	10	µg/L	1	10/23/2011 08:47 AM	
<b>ICP-MS METALS BY DRC-TECHNOLOGY</b>							
<b>EPA 200.8</b>							
RunID: <b>ICP7_111023A</b>	QC Batch: <b>38119</b>			PrepDate:	<b>10/22/2011</b>		<b>Analyst: JT</b>
Selenium	ND	0.50	0.50	µg/L	1	10/23/2011 08:47 AM	

**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



**Advanced Technology  
Laboratories, Inc.**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

**ANALYTICAL QC SUMMARY REPORT****TestCode: 160.2\_2540D\_W**

Sample ID: <b>MB-38146</b>	SampType: <b>MLBK</b>	TestCode: <b>160.2_2540D</b>	Units: <b>mg/L</b>	Prep Date: <b>10/25/2011</b>	RunNo: <b>81951</b>
Client ID: <b>PBW</b>	Batch ID: <b>38146</b>	TestNo: <b>SM2540D</b>		Analysis Date: <b>10/25/2011</b>	SeqNo: <b>1319251</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Suspended Solids (Residue, Non-Filter)	ND	10			
Sample ID: <b>LCS-38146</b>	SampType: <b>LCS</b>	TestCode: <b>160.2_2540D</b>	Units: <b>mg/L</b>	Prep Date: <b>10/25/2011</b>	RunNo: <b>81951</b>
Client ID: <b>LCSW</b>	Batch ID: <b>38146</b>	TestNo: <b>SM2540D</b>		Analysis Date: <b>10/25/2011</b>	SeqNo: <b>1319252</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Suspended Solids (Residue, Non-Filter)	1008.000	10	1000	0	101
Suspended Solids (Residue, Non-Filter)	ND	10			
Sample ID: <b>N006671-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>160.2_2540D</b>	Units: <b>mg/L</b>	Prep Date: <b>10/25/2011</b>	RunNo: <b>81951</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38146</b>	TestNo: <b>SM2540D</b>		Analysis Date: <b>10/25/2011</b>	SeqNo: <b>1319254</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Suspended Solids (Residue, Non-Filter)	ND	10			
				0	0
					5

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 1664\_HEM\_W

Sample ID: MB-38136	SampType: MBLK	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 10/24/2011			RunNo: 81948			
Client ID: PBW	Batch ID: 38136	TestNo: EPA 1664_H			Analysis Date: 10/24/2011			SeqNo: 1319200			
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-38136	SampType: LCS	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 10/24/2011			RunNo: 81948			
Client ID: LCSW	Batch ID: 38136	TestNo: EPA 1664_H			Analysis Date: 10/24/2011			SeqNo: 1319201			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	35.500	4.0	40.00	0	88.8	78	114				
Sample ID: N006671-001B-MS	SampType: MS	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 10/24/2011			RunNo: 81948			
Client ID: ZZZZZZ	Batch ID: 38136	TestNo: EPA 1664_H			Analysis Date: 10/24/2011			SeqNo: 1319203			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	36.289	4.1	41.24	0	88.0	78	114				
Sample ID: N006671-001B-MSD	SampType: MSD	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 10/24/2011			RunNo: 81948			
Client ID: ZZZZZZ	Batch ID: 38136	TestNo: EPA 1664_H			Analysis Date: 10/24/2011			SeqNo: 1319204			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	37.010	4.1	41.24	0	89.8	78	114	36.29	1.97	18	

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W

Sample ID: MB-38119	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: PBW	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318568						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.50									
Lead	ND	0.50									
Thallium	ND	0.50									
Zinc	ND	10									
Sample ID: LCS-38119	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: LCSW	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318569						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.870	0.50	10.00	0	98.7	85	115				
Lead	9.529	0.50	10.00	0	95.3	85	115				
Thallium	9.590	0.50	10.00	0	95.9	85	115				
Zinc	95.764	10	100.0	0	95.8	85	115				
Sample ID: N006671-001G-MS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: ZZZZZZ	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318573						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	8.679	0.50	10.00	0.8196	78.6	75	125				
Lead	9.969	0.50	10.00	0.08312	98.9	75	125				
Thallium	10.173	0.50	10.00	0	102	75	125				
Zinc	97.608	10	100.0	15.09	82.5	75	125				
Sample ID: N006671-001G-MSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: ZZZZZZ	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318574						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	8.701	0.50	10.00	0.8196	78.8	75	125	8.679	0.255	20	
Lead	9.995	0.50	10.00	0.08312	99.1	75	125	9.969	0.261	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W

Sample ID: <b>N006671-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>10/22/2011</b>	RunNo: <b>81908</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38119</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>10/23/2011</b>	SeqNo: <b>1318574</b>
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Thallium	10.206	0.50	10.00	0	102
Zinc	96.819	10	100.0	15.09	81.7
				LowLimit	HighLimit
				75	125
				75	125
				10.17	97.61
				0.328	0.812
				20	20

**Qualifiers:**

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out

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

**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W\_DRC

Sample ID: MB-38119	SampType: MBLK	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: PBW	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318602						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.50									
Sample ID: LCS-38119	SampType: LCS	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: LCSW	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318603						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	9.443	0.50	10.00	0	94.4	85	115				
Sample ID: N006671-001G-MS	SampType: MS	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: ZZZZZZ	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318607						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	9.084	0.50	10.00	0	90.8	75	125				
Sample ID: N006671-001G-MSD	SampType: MSD	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 10/22/2011	RunNo: 81908						
Client ID: ZZZZZZ	Batch ID: 38119	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 10/23/2011	SeqNo: 1318608						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.961	0.50	10.00	0	89.6	75	125	9.084	1.37	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 245.1\_W\_LL

Sample ID: <b>LCS-38125</b>	SampType: <b>LCS</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>10/23/2011</b>	RunNo: <b>81919</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>38125</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>10/24/2011</b>	SeqNo: <b>1318717</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	2.410	0.050	2.500	0	96.4	85	115				
Sample ID: <b>MB-38125</b>	SampType: <b>MBLK</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>10/23/2011</b>	RunNo: <b>81919</b>						
Client ID: <b>PBW</b>	Batch ID: <b>38125</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>10/24/2011</b>	SeqNo: <b>1318718</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	ND	0.050									
Sample ID: <b>N006671-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>10/23/2011</b>	RunNo: <b>81919</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38125</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>10/24/2011</b>	SeqNo: <b>1318720</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	2.576	0.050	2.500	0	103	75	125				
Sample ID: <b>N006671-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>10/23/2011</b>	RunNo: <b>81919</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38125</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>10/24/2011</b>	SeqNo: <b>1318721</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	2.520	0.050	2.500	0	101	75	125	2.576	2.20	20	

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: MB-R81909	SampType: MBLK	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 81909						
Client ID: PBW	Batch ID: R81909	TestNo: EPA 7199		Analysis Date: 10/22/2011	SeqNo: 1318590						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									
Sample ID: LCS-R81909	SampType: LCS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 81909						
Client ID: LCSW	Batch ID: R81909	TestNo: EPA 7199		Analysis Date: 10/22/2011	SeqNo: 1318591						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	5.048	0.20	5.000	0	101	90	110				
Sample ID: N006671-001IDUP	SampType: DUP	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 81909						
Client ID: ZZZZZZ	Batch ID: R81909	TestNo: EPA 7199		Analysis Date: 10/22/2011	SeqNo: 1318593						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20							0	0	20
Sample ID: N006671-001IMS	SampType: MS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 81909						
Client ID: ZZZZZZ	Batch ID: R81909	TestNo: EPA 7199		Analysis Date: 10/22/2011	SeqNo: 1318594						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.998	0.20	1.000	0	99.8	85	115				
Sample ID: N006671-001IMSD	SampType: MSD	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 81909						
Client ID: ZZZZZZ	Batch ID: R81909	TestNo: EPA 7199		Analysis Date: 10/22/2011	SeqNo: 1318595						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	1.015	0.20	1.000	0	101	85	115	0.9977	1.68	20	

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8015\_W\_FP\_SFPP

Sample ID: MB-38126	SampType: MBLK	TestCode: 8015_W_FP_	Units: ug/L	Prep Date:	RunNo: 81924
Client ID: PBW	Batch ID: 38126	TestNo: EPA 8015B	EPA 3510C	Analysis Date: 10/24/2011	SeqNo: 1318852
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH-Diesel (C13-C22)	ND	50			
TPH-Oil (C23-C36)	ND	50			
Surr: Octacosane	71.110		80.00		88.9
Surr: p-Terphenyl	76.285		80.00		95.4
				26	152
				57	132

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8015\_W\_GSFPP

Sample ID: E111024LCS2	SampType: LCS	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 81937		
Client ID: LCSW	Batch ID: E11VW057	TestNo: EPA 8015B				Analysis Date: 10/24/2011			SeqNo: 1319092		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	823.000	100	1000	0	82.3	67	136				
Surr: Chlorobenzene - d5	48.148		50.00		96.3	74	138				
Sample ID: E111024MB2	SampType: MBLK	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 81937		
Client ID: PBW	Batch ID: E11VW057	TestNo: EPA 8015B				Analysis Date: 10/24/2011			SeqNo: 1319093		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	100									
Surr: Chlorobenzene - d5	51.502		50.00		103	74	138				
Sample ID: N006671-001DMS	SampType: MS	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 81937		
Client ID: ZZZZZZ	Batch ID: E11VW057	TestNo: EPA 8015B				Analysis Date: 10/24/2011			SeqNo: 1319108		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	730.000	100	1000	0	73.0	67	136				
Surr: Chlorobenzene - d5	46.674		50.00		93.3	74	138				
Sample ID: N006671-001DMSD	SampType: MSD	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 81937		
Client ID: ZZZZZZ	Batch ID: E11VW057	TestNo: EPA 8015B				Analysis Date: 10/24/2011			SeqNo: 1319109		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	693.000	100	1000	0	69.3	67	136	730.0	5.20	30	
Surr: Chlorobenzene - d5	44.711		50.00		89.4	74	138		0	0	

**Qualifiers:**

- |   |  |    |                                     |   |  |
|---|--|----|-------------------------------------|---|--|
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| J | Analyte detected below quantitation limits                   | ND | Not Detected at the Reporting Limit | R | RPD outside accepted recovery limits               |
| S | Spike/Surrogate outside of limits due to matrix interference | DO | Surrogate Diluted Out               |   | Calculations are based on raw values               |



**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111024LCS	SampType: LCS	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:			RunNo: 81931				
Client ID: LCSW	Batch ID: D11VW156	TestNo: EPA 8260B		Analysis Date: 10/24/2011			SeqNo: 1319041				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethane	19.000	0.50	20.00	0	95.0	69	133				
1,2-Dichloroethane	19.290	0.50	20.00	0	96.5	69	132				
Benzene	19.520	1.0	20.00	0	97.6	81	122				
Ethylbenzene	19.340	1.0	20.00	0	96.7	73	127				
m,p-Xylene	39.600	1.0	40.00	0	99.0	76	128				
MTBE	19.660	1.0	20.00	0	98.3	65	123				
o-Xylene	19.550	1.0	20.00	0	97.8	80	121				
Tert-Butanol	94.860	5.0	100.0	0	94.9	70	130				
Toluene	19.930	2.0	20.00	0	99.7	77	122				
Xylenes, Total	59.150	2.0	60.00	0	98.6	75	125				
Surr: 1,2-Dichloroethane-d4	24.250		25.00		97.0	72	119				
Surr: 4-Bromofluorobenzene	24.450		25.00		97.8	76	119				
Surr: Dibromofluoromethane	24.670		25.00		98.7	85	115				
Surr: Toluene-d8	24.570		25.00		98.3	81	120				

Sample ID: N006655-004LMS	SampType: MS	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:			RunNo: 81931				
Client ID: ZZZZZZ	Batch ID: D11VW156	TestNo: EPA 8260B		Analysis Date: 10/24/2011			SeqNo: 1319042				
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				
1,2-Dichloroethane	18.220	0.50	20.00	0	91.1	69	132				
Benzene	20.670	1.0	20.00	0.8200	99.2	81	122				
Ethylbenzene	21.090	1.0	20.00	0	105	73	127				
m,p-Xylene	43.110	1.0	40.00	0	108	76	128				
MTBE	16.220	1.0	20.00	0	81.1	65	123				
o-Xylene	20.990	1.0	20.00	0	105	80	121				
Tert-Butanol	75.300	5.0	100.0	0	75.3	70	130				
Toluene	21.070	2.0	20.00	0	105	77	122				
Xylenes, Total	64.100	2.0	60.00	0	107	75	125				
Surr: 1,2-Dichloroethane-d4	21.670		25.00		86.7	72	119				

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: <b>N006655-004LMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:				RunNo: <b>81931</b>			
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW156</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>10/24/2011</b>				SeqNo: <b>1319042</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Bromofluorobenzene	25.930	25.00	104	76	119			
Surr: Dibromofluoromethane	24.250	25.00	97.0	85	115			
Surr: Toluene-d8	26.210	25.00	105	81	120			

Sample ID: <b>N006655-004LMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:				RunNo: <b>81931</b>			
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW156</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>10/24/2011</b>				SeqNo: <b>1319043</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethane	19.570	0.50	20.00	0	97.9	69	133	19.71	0.713	20	
1,2-Dichloroethane	18.170	0.50	20.00	0	90.9	69	132	18.22	0.275	20	
Benzene	20.810	1.0	20.00	0.8200	100	81	122	20.67	0.675	20	
Ethylbenzene	21.240	1.0	20.00	0	106	73	127	21.09	0.709	20	
m,p-Xylene	43.240	1.0	40.00	0	108	76	128	43.11	0.301	20	
MTBE	16.290	1.0	20.00	0	81.4	65	123	16.22	0.431	20	
o-Xylene	21.070	1.0	20.00	0	105	80	121	20.99	0.380	20	
Tert-Butanol	77.110	5.0	100.0	0	77.1	70	130	75.30	2.38	20	
Toluene	21.340	2.0	20.00	0	107	77	122	21.07	1.27	20	
Xylenes, Total	64.310	2.0	60.00	0	107	75	125	64.10	0.327	20	
Surr: 1,2-Dichloroethane-d4	21.940		25.00		87.8	72	119		0		
Surr: 4-Bromofluorobenzene	26.140		25.00		105	76	119		0		
Surr: Dibromofluoromethane	24.170		25.00		96.7	85	115		0		
Surr: Toluene-d8	26.740		25.00		107	81	120		0		

Sample ID: <b>D111024MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:				RunNo: <b>81931</b>			
Client ID: <b>PBW</b>	Batch ID: <b>D11VW156</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>10/24/2011</b>				SeqNo: <b>1319044</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									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006671  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111024MB3	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 81931
Client ID: PBW	Batch ID: D11VW156	TestNo: EPA 8260B		Analysis Date: 10/24/2011	SeqNo: 1319044
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Ethylbenzene	ND	1.0			
m,p-Xylene	ND	1.0			
MTBE	ND	1.0			
o-Xylene	ND	1.0			
Tert-Butanol	ND	5.0			
Toluene	ND	2.0			
Xylenes, Total	ND	2.0			
Surr: 1,2-Dichloroethane-d4	22.280	25.00	89.1	72	119
Surr: 4-Bromofluorobenzene	26.430	25.00	106	76	119
Surr: Dibromofluoromethane	23.820	25.00	95.3	85	115
Surr: Toluene-d8	26.700	25.00	107	81	120

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

Advanced Technology Laboratories

3151 W. Post Road  
Phoenix, AZ 85021

Las Vegas, NV 89118

Tel: 702-307-2659 Fax: 702-307-2691

Marion Cattin (marlom@atl-labs.com)

**CHAIN OF CUSTODY RECORD**

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_ OF \_\_\_\_\_ 1

# Advanced Technology Laboratories, Inc.

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

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

Cooler Received/Opened On: 10/22/2011 Workorder: N006671  
Rep sample Temp (Deg C): 5.8 IR Gun ID: 1  
Temp Blank:  Yes  No  
Carrier name: OnTrac  
Last 4 digits of Tracking No.: 8527 Packing Material Used: Bubble Wrap  
Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

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

Checklist Completed B

NS

Wm Whaley

Reviewed By:

Ats 10/25/11

# Advanced Technology Laboratories, Inc.

## WORK ORDER Summary

**Client ID:** CH2M HILL-OAKLAND

**Project:** SFPP - Norwalk Site

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

24-Oct-11

**WorkOrder:** N006671

**Date Received:** 10/21/2011

**QC Level:** RTNE  
Comments: Report to D. Jablonski/CH2M HILL ,cc:KMEP. Direct Bill KMEP/SFPP-Steve Defibaugh-ref.AFE# 81195. "y" Flag required / Use lowest possible detection

Sample ID	Client Sample ID	Date Collected	Date Due	Matrix	Test No	Test Name	Hld	MS	Sub	Storage
N006671-001A	EFF-10-21	10/21/2011 1:15:00 PM	10/25/2011	Wastewater	SM2540D	TOTAL NON-FILTERABLE RESIDUE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			10/25/2011			Total Suspended Solids Prep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-001B		10/25/2011				Oil and Grease Sample Prep	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
			10/25/2011		EPA 1664 _HEM	OIL & GREASE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-001C		10/24/2011			EPA 8260B	VOLATILE ORGANIC COMPOUNDS BY GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-001D		10/25/2011			EPA 8015B	GASOLINE RANGE ORGANICS BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-001E		10/25/2011			SM2540F	SETTLEABLE MATTER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SUB
N006671-001F		10/25/2011			EPA 420.1	PHENOLICS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
		10/25/2011				Phenols Prep	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	SUB
N006671-001G		10/24/2011			EPA 200.8	AQPREP TOTAL METALS: ICP, FLAA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
		10/24/2011			EPA 200.8	ICPMS METALS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
		10/24/2011			EPA 200.8	ICP-MS METALS BY DRC- TECHNOLOGY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
		10/24/2011			EPA 245.1	MERCURY BY COLD VAPOR TECHNIQUE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
		10/24/2011				MERCURY PREP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-001H		10/25/2011			EPA 3510C	SEPARATORY FUNNEL EXTRACTION: EXTRACTABLE FUELS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
		10/25/2011			EPA 8015B	TPH-Fuel Product BY GC/FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-001I		10/25/2011			EPA 7199	Hexavalent Chromium by IC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	WW
N006671-002A	FOLDER	10/24/2011			Folder	Folder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LAB



November 01, 2011



Marlon Cartin  
Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas, NV 89118  
TEL: (702) 307-2659  
FAX: (702) 307-2691

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
Workorder No.: 120424

RE:

Attention: Marlon Cartin

Enclosed are the results for sample(s) received on October 21, 2011 by Advanced Technology 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 (562)989-4045 if I can be of further assistance to your company.

Sincerely,



Eddie F. Rodriguez  
Laboratory Director

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Advanced Technology  
Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

## **Advanced Technology Laboratories**

## ANALYTICAL RESULTS

Print Date: 01-Nov-11

**Analyses**      **Result**      **PQL**    **Qual**    **Units**      **DF**      **Date Analyzed**

---

SETTLEABLE MATTER

SM2540F

RunID: WETCHEM\_111021A QC Batch: 76427 PrepDate: 10/21/2011 Analyst: PT  
Settleable Matter ND 0.097 mL/L 1 10/21/2011

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



*3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040*

## **Advanced Technology Laboratories**

## ANALYTICAL RESULTS

Print Date: 01-Nov-11

PHENOLICS

EPA 420.1

RunID: WETCHEM3\_111025A QC Batch: 76439 PrepDate: 10/24/2011 Analyst: AAG  
Phenolics, Total Recoverable ND 0.030 mg/L 1 10/25/2011

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



*3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040*

CLIENT: Advanced Technology Laboratory-Las Vegas

Work Order: 120424

Project:

## ANALYTICAL QC SUMMARY REPORT

TestCode: 2540F\_CH2

Sample ID: <b>MB-76427</b>	SampType: <b>MBLK</b>	TestCode: <b>2540F_CH2</b>	Units: <b>ml/L</b>	Prep Date: <b>10/21/2011</b>	RunNo: <b>137743</b>
Client ID: <b>PBW</b>	Batch ID: <b>76427</b>	TestNo: <b>SM2540F</b>		Analysis Date: <b>10/21/2011</b>	SeqNo: <b>2262856</b>
<b>Analyte</b>					
Settleable Matter	Result	PQL	SPK value	SPK Ref Val	%REC
	ND		0.10		LowLimit
				HighLimit	RPD Ref Val
					%RPD
					RPDLimit
					Qual

## Qualifiers:

B Analyte detected in the associated Method Blank

ND Not Detected at the Reporting Limit

DO Surrogate Diluted Out

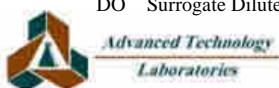
E Value above quantitation range

R RPD outside accepted recovery limits

Calculations are based on raw values

H Holding times for preparation or analysis exceeded

S Spike/Surrogate outside of limits due to matrix interference



**CLIENT:** Advanced Technology Laboratory-Las Vegas  
**Work Order:** 120424  
**Project:**

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 420.1\_W\_CH2

Sample ID: 120424-002A-MS	SampType: MS	TestCode: 420.1_W_CH2 Units: mg/L			Prep Date: 10/24/2011			RunNo: 137767			
Client ID: N006671-001F / EFF	Batch ID: 76439	TestNo: EPA 420.1			Analysis Date: 10/25/2011			SeqNo: 2263183			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	2.453	0.030	2.500	0	98.1	80	120				
Sample ID: 120424-002A-MSD	SampType: MSD	TestCode: 420.1_W_CH2 Units: mg/L			Prep Date: 10/24/2011			RunNo: 137767			
Client ID: N006671-001F / EFF	Batch ID: 76439	TestNo: EPA 420.1			Analysis Date: 10/25/2011			SeqNo: 2263184			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	2.394	0.030	2.500	0	95.8	80	120	2.453	2.43	20	
Sample ID: LCS-76439	SampType: LCS	TestCode: 420.1_W_CH2 Units: mg/L			Prep Date: 10/24/2011			RunNo: 137767			
Client ID: LCSW	Batch ID: 76439	TestNo: EPA 420.1			Analysis Date: 10/25/2011			SeqNo: 2263185			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	2.461	0.030	2.500	0	98.4	80	120				
Sample ID: MB-76439	SampType: MBLK	TestCode: 420.1_W_CH2 Units: mg/L			Prep Date: 10/24/2011			RunNo: 137767			
Client ID: PBW	Batch ID: 76439	TestNo: EPA 420.1			Analysis Date: 10/25/2011			SeqNo: 2263186			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	0.030									

**Qualifiers:**

B Analyte detected in the associated Method Blank

ND Not Detected at the Reporting Limit

DO Surrogate Diluted Out

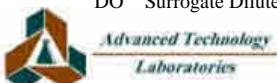
E Value above quantitation range

R RPD outside accepted recovery limits

Calculations are based on raw values

H Holding times for preparation or analysis exceeded

S Spike/Surrogate outside of limits due to matrix interference



Advanced Technology Laboratories

3151 W. Post Road

Las Vegas NV 89118

Tel: 202-225-5673 Fax: 202-225-7250

Marion Martin (marion@mail.tuhs.com)

**CHAIN OF CUSTODY RECORD**

DATE: 10-21-11  
PAGE: 1 OF 1

## Carmen Aguila

---

**From:** Marlon Cartin [mailto:[marlon@atl-labs.com](mailto:marlon@atl-labs.com)]  
**Sent:** Friday, October 21, 2011 11:38 AM  
**To:** Carmen Aguila  
**Cc:** Rachelle Arada  
**Subject:** RE: Norwalk Pick-up  
**Attachments:** Sub COC 102111.pdf

Hi Carmen!

Attached is the sub-COC for the sample you will pick-up this afternoon. It does not have the time yet. Please check on the original COC from client when you get it.

Thanks,

Marlon

-----Original Message-----

**From:** Carmen Aguila [mailto:[carmen@atlglobal.com](mailto:carmen@atlglobal.com)]  
**Sent:** Friday, October 21, 2011 11:20 AM  
**To:** Marlon Cartin  
**Cc:** Rachelle Arada  
**Subject:** RE: Norwalk Pick-up

Hi Marlon,

We can be there around 4-5 pm this afternoon. Who will be the contact person?

Thanks,

Carmen

**From:** Marlon Cartin [mailto:[marlon@atl-labs.com](mailto:marlon@atl-labs.com)]  
**Sent:** Friday, October 21, 2011 11:10 AM  
**To:** Rachelle Arada  
**Cc:** Carmen Aguila  
**Subject:** Norwalk Pick-up

Hi Rachelle!

Sorry for the late request. My client needs a pick-up today at Norwalk after 3 PM today. Please try to accommodate them despite of a late call.

Thanks,

**Marlon B. Cartin**

**Advanced Technology Laboratories, Inc.**

3151 W. Post Road

Las Vegas, NV 89118

Phone: 702-307-2659 ext 410

Mobile: 702-439-0421

[www.atl-labs.com](http://www.atl-labs.com)

Advanced Technology Laboratories, Inc. is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Nevada and holds various SBT, D02 and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. Advanced Technology Labs, Inc. - Your Partner for Quality Environmental Testing.

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## Advanced Technology Laboratories

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

[www.atlglobal.com](http://www.atlglobal.com)

TEL: 702.307.2659 FAX: 702.307.2691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

### Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

Field Sampler: James Dye

TEL: (562) 989-4045  
FAX: (562) 989-4045  
Act #: 21-Oct-11

QC Level: RTNE

Sample ID		Matrix	Date Collected	Bottle Type	EPA 420.1	SM2540F	Requested Tests
N006671-001E	/ EFFLUENT-10-21	Wastewater	10/21/2011	32OZG		†	
N006671-001F	/ EFFLUENT-10-21	Wastewater	10/21/2011	32OZA	1		

General Comments:

Please email sample receipt acknowledgement to the PM.

Please use PO#: N006671

Please fax results by: Normal TAT

Date/Time	Date/Time	Date/Time
Relinquished by:	Received by:	Date/Time: 10/21/11
Relinquished by:	Received by:	Date/Time: 10/21/11

## Rachelle Arada

---

**From:** Glen S. Gesmundo [glen@atl-labs.com]  
**Sent:** Monday, October 24, 2011 10:21 AM  
**To:** Rachelle Arada  
**Cc:** Marlon Cartin  
**Subject:** SFPP - Norwalk Site (ATL INC No. N006671)

I believe Marlon sent already a sub COC for the above project. Kindly change the TAT to 48 hr.

Thanks,

Glen Gesmundo  
Advanced Technology Laboratories, Inc.  
[www.atl-labs.com](http://www.atl-labs.com)  
Tel: (702) 307-3248 ext. 406  
Fax: (702) 307-2691

Advanced Technology Laboratories, Inc. is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATI is accredited by the State of California, NEILAP and State of Nevada and holds various SBF, DBF and MRF certificates and a USDA soil permit. ATI takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. Advanced Technology Labs - Your Partner for Quality Environmental Testing

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November 21, 2011

Daniel Jablonski  
CH2M HILL  
155 Grand Avenue, Suite 1000  
Oakland, CA 94612  
TEL: (213)228-8271  
FAX: (510) 622-9129

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

Workorder No.: N006771

RE: SFPP - Norwalk Site

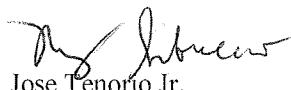
Attention: Daniel Jablonski

Enclosed are the results for sample(s) received on November 07, 2011 by Advanced Technology Laboratories, Inc.. 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,

  
Jose Tenorio Jr.

Laboratory Director

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Advanced Technology  
Laboratories, Inc.

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

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006771

**CASE NARRATIVE****SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

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

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

Samples were analyzed within method holding time.

**Subcontracted Analyses:**

Settleable Matter by SM 2540F and Phenols by EPA 420.1 were subcontracted to Advanced Technology Laboratories-Signal Hill, CA .

# Advanced Technology Laboratories, Inc.

Date: 21-Nov-11

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006771

## Work Order Sample Summary

Contract No:

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N006771-001A	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001B	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001C	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001D	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001E	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001F	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001G	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006771-001H	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 21-Nov-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006771  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006771-001

**Client Sample ID:** EFF-11-7  
**Collection Date:** 11/7/2011 12:45:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>TOTAL NON-FILTERABLE RESIDUE</b>							
<b>SM2540D</b>							
RunID: <b>WETCHEM_111108A</b>	QC Batch: <b>38275</b>			PrepDate:	<b>11/8/2011</b>		Analyst: <b>CEI</b>
Suspended Solids (Residue, Non-Filterable)	ND	10	10	mg/L	1		11/8/2011
<b>OIL &amp; GREASE</b>							
<b>EPA 1664 _HEM</b>							
RunID: <b>WETCHEM_111109B</b>	QC Batch: <b>38276</b>			PrepDate:	<b>11/9/2011</b>		Analyst: <b>QBM</b>
Oil & Grease	ND	0.97	4.2	mg/L	1		11/9/2011
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
<b>EPA 8260B</b>							
RunID: <b>MS1_111108B</b>	QC Batch: <b>D11VW161</b>			PrepDate:			Analyst: <b>QBM</b>
1,1-Dichloroethane	ND	0.099	0.50	µg/L	1	11/9/2011 01:11 AM	
1,2-Dichloroethane	ND	0.17	0.50	µg/L	1	11/9/2011 01:11 AM	
Benzene	ND	0.075	1.0	µg/L	1	11/9/2011 01:11 AM	
Ethylbenzene	ND	0.051	1.0	µg/L	1	11/9/2011 01:11 AM	
m,p-Xylene	ND	0.17	1.0	µg/L	1	11/9/2011 01:11 AM	
MTBE	ND	0.089	1.0	µg/L	1	11/9/2011 01:11 AM	
o-Xylene	ND	0.077	1.0	µg/L	1	11/9/2011 01:11 AM	
Tert-Butanol	ND	1.2	5.0	µg/L	1	11/9/2011 01:11 AM	
Toluene	ND	0.12	2.0	µg/L	1	11/9/2011 01:11 AM	
Surr: 1,2-Dichloroethane-d4	81.0	0	72-119	%REC	1	11/9/2011 01:11 AM	
Surr: 4-Bromofluorobenzene	108	0	76-119	%REC	1	11/9/2011 01:11 AM	
Surr: Dibromofluoromethane	93.7	0	85-115	%REC	1	11/9/2011 01:11 AM	
Surr: Toluene-d8	111	0	81-120	%REC	1	11/9/2011 01:11 AM	
<b>TPH-FUEL PRODUCT BY GC/FID</b>							
<b>EPA 3510C</b>							
RunID: <b>GC3_111108C</b>	QC Batch: <b>38264</b>			PrepDate:	<b>11/8/2011</b>		Analyst: <b>PYW</b>
TPH-Diesel (C13-C22)	ND	13	50	ug/L	1	11/8/2011 05:06 PM	
TPH-Oil (C23-C36)	ND	9.6	50	ug/L	1	11/8/2011 05:06 PM	
Surr: Octacosane	84.5	0	26-152	%REC	1	11/8/2011 05:06 PM	
Surr: p-Terphenyl	83.2	0	57-132	%REC	1	11/8/2011 05:06 PM	
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>							
<b>EPA 8015B</b>							
RunID: <b>GC4_111109A</b>	QC Batch: <b>E11VW060</b>			PrepDate:			Analyst: <b>MCS</b>
TPH-Gasoline (C4-C12)	ND	6.0	100	µg/L	1	11/9/2011	

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out


**Advanced Technology**  
**Laboratories, Inc.**

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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 21-Nov-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006771  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006771-001

**Client Sample ID:** EFF-11-7  
**Collection Date:** 11/7/2011 12:45:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>							
<b>EPA 8015B</b>							
RunID: <b>GC4_111109A</b>	QC Batch: <b>E11VW060</b>			PrepDate:			<b>Analyst: MCS</b>
Surr: Chlorobenzene - d5	106	0	74-138	%REC		1	11/9/2011
<b>HEXAVALENT CHROMIUM BY IC</b>							
<b>EPA 7199</b>							
RunID: <b>IC1_111108B</b>	QC Batch: <b>R82150</b>			PrepDate:			<b>Analyst: QBM</b>
Hexavalent Chromium	ND	0.014	0.20	µg/L		1	11/8/2011 12:01 PM
<b>MERCURY BY COLD VAPOR TECHNIQUE</b>							
<b>EPA 245.1</b>							
RunID: <b>AA1_111109A</b>	QC Batch: <b>38270</b>			PrepDate:	<b>11/8/2011</b>		<b>Analyst: CEI</b>
Mercury	ND	0.023	0.050	µg/L		1	11/9/2011
<b>ICPMS METALS</b>							
<b>EPA 200.8</b>							
RunID: <b>ICP7_111108A</b>	QC Batch: <b>38263</b>			PrepDate:	<b>11/8/2011</b>		<b>Analyst: JT</b>
Copper	1.7	0.010	0.50	µg/L		1	11/8/2011 03:30 PM
Lead	ND	0.11	2.5	µg/L		5	11/8/2011 03:35 PM
Thallium	ND	0.22	2.5	µg/L		5	11/8/2011 03:35 PM
Zinc	13	0.16	10	µg/L		1	11/8/2011 03:30 PM
<b>ICP-MS METALS BY DRC-TECHNOLOGY</b>							
<b>EPA 200.8</b>							
RunID: <b>ICP7_111108A</b>	QC Batch: <b>38263</b>			PrepDate:	<b>11/8/2011</b>		<b>Analyst: JT</b>
Selenium	ND	0.50	0.50	µg/L		1	11/8/2011 03:30 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



**Advanced Technology**  
Laboratories, Inc.

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

**CLIENT:** CH2M HILL  
**Work Order:** N006771  
**Project:** SFPP - Norwalk Site

**ANALYTICAL QC SUMMARY REPORT****TestCode: 160.2\_2540D\_W**

Sample ID: <b>MB-38275</b>	SampType: <b>MLBK</b>	TestCode: <b>160.2_2540D</b>	Units: <b>mg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82109</b>
Client ID: <b>PBW</b>	Batch ID: <b>38275</b>	TestNo: <b>SM2540D</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1323932</b>
<b>Analyte</b>					
	<b>Result</b>	<b>PQL</b>	<b>SPK value</b>	<b>SPK Ref Val</b>	<b>%REC</b>
Suspended Solids (Residue, Non-Filter)	ND	10			
Sample ID: <b>LCS-38275</b>	SampType: <b>LCS</b>	TestCode: <b>160.2_2540D</b>	Units: <b>mg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82109</b>
Client ID: <b>LCSW</b>	Batch ID: <b>38275</b>	TestNo: <b>SM2540D</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1323933</b>
<b>Analyte</b>					
	<b>Result</b>	<b>PQL</b>	<b>SPK value</b>	<b>SPK Ref Val</b>	<b>%REC</b>
Suspended Solids (Residue, Non-Filter)	1063.000	10	1000	0	106
				80	120
Sample ID: <b>N006741-001F-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>160.2_2540D</b>	Units: <b>mg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82109</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38275</b>	TestNo: <b>SM2540D</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1323935</b>
<b>Analyte</b>					
	<b>Result</b>	<b>PQL</b>	<b>SPK value</b>	<b>SPK Ref Val</b>	<b>%REC</b>
Suspended Solids (Residue, Non-Filter)	ND	10			
				0	0
					5

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
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**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 1664\_HEM\_W

Sample ID: MB-38276	SampType: MBLK	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 11/9/2011			RunNo: 82148			
Client ID: PBW	Batch ID: 38276	TestNo: EPA 1664_H			Analysis Date: 11/9/2011			SeqNo: 1325368			
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-38276	SampType: LCS	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 11/9/2011			RunNo: 82148			
Client ID: LCSW	Batch ID: 38276	TestNo: EPA 1664_H			Analysis Date: 11/9/2011			SeqNo: 1325369			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	34.700	4.0	40.00	0	86.8	78	114				
Sample ID: N006771-001BMS	SampType: MS	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 11/9/2011			RunNo: 82148			
Client ID: ZZZZZZ	Batch ID: 38276	TestNo: EPA 1664_H			Analysis Date: 11/9/2011			SeqNo: 1325377			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	33.299	4.1	41.24	0	80.8	78	114				
Sample ID: N006771-001BMSD	SampType: MSD	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 11/9/2011			RunNo: 82148			
Client ID: ZZZZZZ	Batch ID: 38276	TestNo: EPA 1664_H			Analysis Date: 11/9/2011			SeqNo: 1325378			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	34.639	4.1	41.24	0	84.0	78	114	33.30	3.95	18	

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W

Sample ID: MB-38263	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: PBW	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322720						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.50									
Lead	ND	0.50									
Thallium	ND	0.50									
Zinc	ND	10									
Sample ID: LCS-38263	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: LCSW	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322721						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	11.442	0.50	10.00	0	114	85	115				
Lead	9.519	0.50	10.00	0	95.2	85	115				
Thallium	9.639	0.50	10.00	0	96.4	85	115				
Zinc	96.879	10	100.0	0	96.9	85	115				
Sample ID: N006771-001G-MS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: ZZZZZZ	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322727						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	10.123	0.50	10.00	1.721	84.0	75	125				
Zinc	93.737	10	100.0	13.17	80.6	75	125				
Sample ID: N006771-001G-MS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: ZZZZZZ	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322728						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.061	2.5	10.00	0	90.6	75	125				
Thallium	10.789	2.5	10.00	0	108	75	125				

**Qualifiers:**

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

**TestCode:** 200.8\_W

Sample ID: <b>N006771-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>					
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>	EPA 200.8	Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322729</b>					
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>										
Copper	10.128	0.50	10.00	1.721	84.1	75	125	10.12	0.0484	20
Zinc	92.339	10	100.0	13.17	79.2	75	125	93.74	1.50	20
Sample ID: <b>N006771-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>					
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>	EPA 200.8	Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322733</b>					
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>										
Lead	9.072	2.5	10.00	0	90.7	75	125	9.061	0.124	20
Thallium	10.383	2.5	10.00	0	104	75	125	10.79	3.83	20

**Qualifiers:**

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E Value above quantitation range

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ND Not Detected at the Reporting Limit

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**CLIENT:** CH2M HILL  
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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W\_DRC

Sample ID: MB-38263	SampType: MBLK	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: PBW	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322559						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.50									
Sample ID: LCS-38263	SampType: LCS	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: LCSW	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322560						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	9.366	0.50	10.00	0	93.7	85	115				
Sample ID: N006771-001G-MS	SampType: MS	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: ZZZZZZ	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.608	0.50	10.00	0	86.1	75	125				
Sample ID: N006771-001G-MSD	SampType: MSD	TestCode: 200.8_W_DR	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: ZZZZZZ	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322568						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	8.375	0.50	10.00	0	83.7	75	125	8.608	2.75	20	

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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 245.1\_W\_LL

Sample ID: <b>LCS-38270</b>	SampType: <b>LCS</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322460</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	2.680	0.050	2.500	0	107	85	115				
Sample ID: <b>MB-38270</b>	SampType: <b>MBLK</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>PBW</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322461</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	ND	0.050									
Sample ID: <b>N006771-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322463</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	2.432	0.050	2.500	0	97.3	75	125				
Sample ID: <b>N006771-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322464</b>						
<b>Analyte</b> <b>Result</b> <b>PQL</b> <b>SPK value</b> <b>SPK Ref Val</b> <b>%REC</b> <b>LowLimit</b> <b>HighLimit</b> <b>RPD Ref Val</b> <b>%RPD</b> <b>RPDLimit</b> <b>Qual</b>											
Mercury	2.484	0.050	2.500	0	99.4	75	125	2.432	2.11	20	

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



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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: MB-R82150	SampType: MBLK	TestCode: 7199_WPGE	Units: µg/L	Prep Date:			RunNo: 82150				
Client ID: PBW	Batch ID: R82150	TestNo: EPA 7199		Analysis Date: 11/8/2011			SeqNo: 1325458				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									
Sample ID: LCS-R82150	SampType: LCS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:			RunNo: 82150				
Client ID: LCSW	Batch ID: R82150	TestNo: EPA 7199		Analysis Date: 11/8/2011			SeqNo: 1325459				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.988	0.20	5.000	0	99.8	90	110				
Sample ID: N006771-001FDUP	SampType: DUP	TestCode: 7199_WPGE	Units: µg/L	Prep Date:			RunNo: 82150				
Client ID: ZZZZZZ	Batch ID: R82150	TestNo: EPA 7199		Analysis Date: 11/8/2011			SeqNo: 1325461				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20							0	0	20
Sample ID: N006771-001FMS	SampType: MS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:			RunNo: 82150				
Client ID: ZZZZZZ	Batch ID: R82150	TestNo: EPA 7199		Analysis Date: 11/8/2011			SeqNo: 1325462				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.971	0.20	1.000	0	97.1	85	115				
Sample ID: N006761-002AMS	SampType: MS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:			RunNo: 82150				
Client ID: ZZZZZZ	Batch ID: R82150	TestNo: EPA 7199		Analysis Date: 11/8/2011			SeqNo: 1325484				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	10.179	0.20	5.000	4.897	106	85	115				

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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: <b>N006761-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>7199_WPGE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82150</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82150</b>	TestNo: <b>EPA 7199</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1325485</b>
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Hexavalent Chromium	10.210	0.20	5.000	4.897	106
				85	HighLimit
				115	RPD Ref Val
				10.18	%RPD
					RPDLimit
					Qual
Hexavalent Chromium	11.153	0.20			11.18
					0.284
					20

Sample ID: <b>N006761-005ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>7199_WPGE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82150</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82150</b>	TestNo: <b>EPA 7199</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1325488</b>
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Hexavalent Chromium	11.153	0.20			
					11.18
					0.284
					20

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E Value above quantitation range  
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DO Surrogate Diluted Out

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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8015\_W\_FP\_SFPP

Sample ID: MB-38264	SampType: MBLK	TestCode: 8015_W_FP_	Units: ug/L	Prep Date: 11/8/2011	RunNo: 82076
Client ID: PBW	Batch ID: 38264	TestNo: EPA 8015B	EPA 3510C	Analysis Date: 11/8/2011	SeqNo: 1322648
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH-Diesel (C13-C22)	ND	50			
TPH-Oil (C23-C36)	ND	50			
Surr: Octacosane	68.682		80.00		85.9
Surr: p-Terphenyl	66.849		80.00		83.6
				26	152
				57	132

**Qualifiers:**

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H Holding times for preparation or analysis exceeded

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R RPD outside accepted recovery limits

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## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8015\_W\_GSFPP

Sample ID: E111109LCS1	SampType: LCS	TestCode: 8015_W_GSF	Units: µg/L	Prep Date:	RunNo: 82090
Client ID: LCSW	Batch ID: E11VW060	TestNo: EPA 8015B		Analysis Date: 11/9/2011	SeqNo: 1323352
<b>Analyte</b>					
TPH-Gasoline (C4-C12)	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Chlorobenzene - d5	726.000	100	1000	0	72.6
			50.00		67
				92.7	136
				74	138
TPH-Gasoline (C4-C12)	ND	100			
Surr: Chlorobenzene - d5	51.699		50.00		103
				74	138
Sample ID: E111109MB1	SampType: MBLK	TestCode: 8015_W_GSF	Units: µg/L	Prep Date:	RunNo: 82090
Client ID: PBW	Batch ID: E11VW060	TestNo: EPA 8015B		Analysis Date: 11/9/2011	SeqNo: 1323353
<b>Analyte</b>					
TPH-Gasoline (C4-C12)	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Chlorobenzene - d5	ND	100	1000	0	71.8
			50.00		67
				94.4	136
				74	138
Sample ID: N006771-001CMS	SampType: MS	TestCode: 8015_W_GSF	Units: µg/L	Prep Date:	RunNo: 82090
Client ID: ZZZZZZ	Batch ID: E11VW060	TestNo: EPA 8015B		Analysis Date: 11/9/2011	SeqNo: 1323354
<b>Analyte</b>					
TPH-Gasoline (C4-C12)	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Chlorobenzene - d5	718.000	100	1000	0	71.8
			50.00		67
				94.4	136
				74	138
Sample ID: N006771-001CMSD	SampType: MSD	TestCode: 8015_W_GSF	Units: µg/L	Prep Date:	RunNo: 82090
Client ID: ZZZZZZ	Batch ID: E11VW060	TestNo: EPA 8015B		Analysis Date: 11/9/2011	SeqNo: 1323355
<b>Analyte</b>					
TPH-Gasoline (C4-C12)	Result	PQL	SPK value	SPK Ref Val	%REC
Surr: Chlorobenzene - d5	732.000	100	1000	0	73.2
			50.00		67
				94.8	136
				74	138
				718.0	1.93
					0
					30
					0
					0

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006771  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111108LCS2	SampType: LCS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82073			
Client ID: LCSW	Batch ID: D11VW161	TestNo: EPA 8260B			Analysis Date: 11/8/2011			SeqNo: 1322626			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	19.210	0.50	20.00	0	96.0	69	133				
1,2-Dichloroethane	18.930	0.50	20.00	0	94.6	69	132				
Benzene	18.170	1.0	20.00	0	90.9	81	122				
Ethylbenzene	19.420	1.0	20.00	0	97.1	73	127				
m,p-Xylene	39.190	1.0	40.00	0	98.0	76	128				
MTBE	17.430	1.0	20.00	0	87.2	65	123				
o-Xylene	19.150	1.0	20.00	0	95.8	80	121				
Tert-Butanol	100.370	5.0	100.0	0	100	70	130				
Toluene	18.900	2.0	20.00	0	94.5	77	122				
Surr: 1,2-Dichloroethane-d4	22.640		25.00		90.6	72	119				
Surr: 4-Bromofluorobenzene	23.420		25.00		93.7	76	119				
Surr: Dibromofluoromethane	24.480		25.00		97.9	85	115				
Surr: Toluene-d8	23.830		25.00		95.3	81	120				
Sample ID: N006715-001EMS	SampType: MS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82073			
Client ID: ZZZZZZ	Batch ID: D11VW161	TestNo: EPA 8260B			Analysis Date: 11/8/2011			SeqNo: 1322627			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	18.810	0.50	20.00	0	94.1	69	133				
1,2-Dichloroethane	18.060	0.50	20.00	0	90.3	69	132				
Benzene	18.340	1.0	20.00	0	91.7	81	122				
Ethylbenzene	19.890	1.0	20.00	0	99.4	73	127				
m,p-Xylene	39.980	1.0	40.00	0	100	76	128				
MTBE	16.690	1.0	20.00	0	83.4	65	123				
o-Xylene	19.510	1.0	20.00	0	97.6	80	121				
Tert-Butanol	94.600	5.0	100.0	0	94.6	70	130				
Toluene	19.480	2.0	20.00	0	97.4	77	122				
Surr: 1,2-Dichloroethane-d4	21.390		25.00		85.6	72	119				
Surr: 4-Bromofluorobenzene	24.080		25.00		96.3	76	119				
Surr: Dibromofluoromethane	24.130		25.00		96.5	85	115				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N006771  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: <b>N006715-001EMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82073</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW161</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322627</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	24.660		25.00		98.6	81	120				

Sample ID: <b>N006715-001EMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82073</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW161</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322628</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	19.200	0.50	20.00	0	96.0	69	133	18.81	2.05	20	
1,2-Dichloroethane	18.100	0.50	20.00	0	90.5	69	132	18.06	0.221	20	
Benzene	18.810	1.0	20.00	0	94.1	81	122	18.34	2.53	20	
Ethylbenzene	20.590	1.0	20.00	0	103	73	127	19.89	3.46	20	
m,p-Xylene	41.070	1.0	40.00	0	103	76	128	39.98	2.69	20	
MTBE	16.250	1.0	20.00	0	81.2	65	123	16.69	2.67	20	
o-Xylene	20.010	1.0	20.00	0	100	80	121	19.51	2.53	20	
Tert-Butanol	77.500	5.0	100.0	0	77.5	70	130	94.60	19.9	20	
Toluene	19.770	2.0	20.00	0	98.8	77	122	19.48	1.48	20	
Surr: 1,2-Dichloroethane-d4	21.120		25.00		84.5	72	119		0		
Surr: 4-Bromofluorobenzene	24.450		25.00		97.8	76	119		0		
Surr: Dibromofluoromethane	24.260		25.00		97.0	85	115		0		
Surr: Toluene-d8	24.920		25.00		99.7	81	120		0		

Sample ID: <b>D111108MB5</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82073</b>						
Client ID: <b>PBW</b>	Batch ID: <b>D11VW161</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322629</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									

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N006771  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111108MB5	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82073
Client ID: PBW	Batch ID: D11VW161	TestNo: EPA 8260B		Analysis Date: 11/9/2011	SeqNo: 1322629
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
o-Xylene	ND	1.0			
Tert-Butanol	ND	5.0			
Toluene	ND	2.0			
Sur: 1,2-Dichloroethane-d4	22.080		25.00		88.3
Sur: 4-Bromofluorobenzene	26.500		25.00		106
Sur: Dibromofluoromethane	24.100		25.00		96.4
Sur: Toluene-d8	27.460		25.00		110
				72	119
				76	119
				85	115
				81	120

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



Advanced Technology Laboratories

3151 W. Post Road  
Las Vegas, NV 89118

Tel: 702-307-2659 Fax: 702-307-2691  
**Marlon Cartin (marlon@atl-labs.com)**

**CHAIN OF CUSTODY RECORD**

DATE: 11/11/01  
PAGE: 1 OF 5





**800-334-5000**  
Call For A Pickup!

Account  
Number

B10241809142

FROM (Company)

ONTRAC ENTERTAINMENT & TECHNOLOGY

Street Address

1000 N. GLEN HORN DR.

Suite

100

City

IRVING, TX

State

TX

Zip Code (Required)

75035

Phone Number

(214) 387-5555

TO (Company) WE CANNOT DELIVER TO A P.O. BOX

Street Address

1000 N. GLEN HORN DR.

Suite

100

City

IRVING, TX

State

TX

Zip Code (Required)

75035

Phone Number

(214) 387-5555

Recipient's Name

ONTRAC

Shipper's Ref #

1446

**PLEASE PRINT IN BLOCK LETTERS with Blue / Black Ink**

TO (Company) WE CANNOT DELIVER TO A P.O. BOX

Street Address

1000 N. GLEN HORN DR.

Suite

100

City

IRVING, TX

State

TX

Zip Code (Required)

75035

Phone Number

(214) 387-5555

Recipient's Name

ONTRAC

Shipper's Ref #

1446

**B10241809142**



MM DD YY  
10/04/04

**Service Options**

For more information, contact your Account Manager or call 1-800-334-5000. Not all services are available in all areas. Check service area or call our website for details.

BILL SHIPPER'S ACCOUNT  
If none is selected, shipper will be invoiced.

SUNRISE - BY 10:30 AM\*

SUNRISE GOLD - BY 8:00 AM\*

HEAVYWEIGHT\*\*

SATURDAY DELIVERY - EXTRA CHARGE  
See Service Guide for details

HOLD FOR PICKUP  
This shipment requires a delivery signature.

DECLARED VALUE \$  
(maximum \$25,000)

C.O.D. AMOUNT \$  
(attn: C.O.D. Bag to package)

SECURED PAYMENT  
(Money Order or Certified Check)

UNSECURED PAYMENT  
(Company Check or Personal Check)

C.O.D. REFUND

SHIPPER'S NAME  
**ONTRAC**

SIGNATURE  
**1446**

**Billing Information**

**Weight**

8 OZ. LETTER  
OR

BILL SHIPPER'S ACCOUNT  
Bill Other Acct #

WEIGHT LBS.  
(Subject to verification)

DIM WEIGHT CHANGE IF GREATER THAN ACTUAL WEIGHT  
Dim weight = L x W x H in. / 166 =

L IN. X W IN. X H IN.  
+225 =

+225 =

COMPANY CHECK OR PERSONAL CHECK

DRAFT #

PICKUP TIME

SHIPPER'S SIGNATURE

1446

1446

1446

# Advanced Technology Laboratories, Inc.

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

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

Cooler Received/Opened On: 11/8/2011 Workorder: N006771

Rep sample Temp (Deg C): 4.4,5.6 IR Gun ID: 2

Temp Blank:  Yes  No

Carrier name: OnTrac

Last 4 digits of Tracking No.: 9151,9142 Packing Material Used: Paper

Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

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

Checklist Completed B

NS

WLM

Reviewed By:

ATL 11/10

21 November 2011



Marlon Cartin  
Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas, NV 89118  
Tel: (702) 307-2659  
Fax:(702) 307-2691

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003

RE: ATL Work Order Number: 1100082

Client Reference : [none]

Enclosed are the results for sample(s) received on November, 7 2011 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez".

Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N006771-001E / EFF-11-07	1100082-01	Waste Water	11/07/11 12:45	11/07/11 16:21
N006771-001F / EFF-11-07	1100082-02	Waste Water	11/07/11 12:45	11/07/11 16:21



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

**Client Sample ID N006771-001E / EFF-11-07**

**Lab ID: 1100082-01**

**Settleable Matter by SM 2540F**

**Analyst: KK**

Analyte	Result (mL/L)	PQL (mL/L)	MDL (mL/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Settleable Matter	ND	0.1	NA	1	B1K0108	11/08/2011	11/08/11 10:05	



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

**Client Sample ID N006771-001F / EFF-11-07**

**Lab ID: 1100082-02**

**Phenolics by EPA 420.1**

**Analyst: AG**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Phenolic	ND	0.03	0.02	1	B1K0193	11/10/2011	11/11/11 05:20	



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

## QUALITY CONTROL SECTION

### Phenolics by EPA 420.1 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	------------	--------------	-------

#### Batch B1K0193 - Prep\_WC\_3\_W

##### Blank (B1K0193-BLK1)

Prepared: 11/10/2011 Analyzed: 11/11/2011

Phenolic

ND 0.03

NR

##### LCS (B1K0193-BS1)

Prepared: 11/10/2011 Analyzed: 11/11/2011

Phenolic

2.5 0.03 2.50 102 80 - 120

##### Matrix Spike (B1K0193-MS1)

Source: 1100085-02 Prepared: 11/10/2011 Analyzed: 11/11/2011

Phenolic

2.5 0.03 2.50 ND 99 80 - 120

##### Matrix Spike Dup (B1K0193-MSD1)

Source: 1100085-02 Prepared: 11/10/2011 Analyzed: 11/11/2011

Phenolic

2.4 0.03 2.50 ND 98 80 - 120 2 20



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

### Settleable Matter by SM 2540F - Quality Control

Analyte	Result (mL/L)	PQL (mL/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	-----	--------------	-------

#### Batch B1K0108 - No\_Prep\_WC\_1

##### Blank (B1K0108-BLK1)

Prepared: 11/8/2011 Analyzed: 11/8/2011

Settleable Matter	ND	0.1	NR
-------------------	----	-----	----



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

### Notes and Definitions

ND Analyte not detected at or above reporting limit

PQL Practical Quantitation Limit

MDL Method Detection Limit

NR Not Reported

RPD Relative Percent Difference

CA1 CA-NELAP (CDPH)

CA2 CA-ELAP (CDPH)

OR1 OR-NELAP (OSPHL)

TX1 TX-NELAP (TCEQ)

**Advanced Technology Laboratories**

3751-3753 W Post Rd., Las Vegas, NV 89118

www.attglobal.com

TEL: 7023072659

FAX: 7023072691

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

Subcontractor:	Advanced Technology Laboratories - Signal Hill 3283 Walnut Ave. Signal Hill, California	TEL: (562) 989-4045 FAX: (562) 989-4045 Acct #: 07-Nov-11	QC Level: RTNE
Field Sampler:	John Doe		

Sample ID		Matrix	Date Collected	Bottle Type	EPA 420.1	SM2540F	Requested Tests
N006771-001E	/ EFF-11-07	Wastewater	11/07/2011 12:45:00 PM	32OZG	1		
N006771-001F	/ EFF-11-07	Wastewater	11/07/2011 12:45:00 PM	32OZG	1		

11/07/11  
JL

General Comments: Please email sample receipt acknowledgement to the PM.  
Please use PO#: N006771 Please fax results by: NORMAL TAT  
CH2M HILL SAMPLE.

Relinquished by:	Date/Time	Received by:	Date/Time
<i>[Signature]</i>	11/07/11	<i>[Signature]</i>	11/07/11 16:27
Relinquished by:	Date/Time	Received by:	Date/Time
<i>[Signature]</i>	11/07/11	<i>[Signature]</i>	11/07/11 16:27

November 23, 2011

Daniel Jablonski  
CH2M HILL  
155 Grand Avenue, Suite 1000  
Oakland, CA 94612  
TEL: (213)228-8271  
FAX: (510) 622-9129

CA-ELAP No.:2676  
NV Cert. No.:NV-009222007A  
Workorder No.: N006772

RE: SFPP - Norwalk Site

Attention: Daniel Jablonski

Enclosed are the results for sample(s) received on November 07, 2011 by Advanced Technology Laboratories, Inc. . 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,



Jose Tenorio Jr.  
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:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006772

**CASE NARRATIVE****SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

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

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

Samples were analyzed within method holding time.

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

**Subcontracted Analyses:**

Cyanide (SM 4500-CN) and Surfactants (SM 5540C) were subcontracted to Advanced Technology Laboratories-Signal Hill, CA .

Asbestos was subcontracted to EMS Laboratories-Pasadena,CA.

17 Congeners & TEQ was subcontracted to APPL-Clovis,CA.

**Analytical Comments for EPA 8082:**

Surrogate Tetrachloro-m-xylene recovery was outside the laboratory acceptable limit for QC samples N006772-001BMS and N006772-001BMSD possibly due to matrix interference.

**Analytical Comments for EPA 8260B:**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

---

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006772

## CASE NARRATIVE

---

Analytical Comments for EPA 8270C:

RPD for Matrix Spike (MS)/Matrix Spike Duplicate (MSD) is outside criteria for some analytes ; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

# Advanced Technology Laboratories, Inc.

Date: 23-Nov-11

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N006772

## Work Order Sample Summary

Contract No:

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N006772-001A	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001B	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001C	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001D	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001E	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001F	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001G	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001H	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001I	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001J	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011
N006772-001K	EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	11/7/2011	11/7/2011

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**  
 Print Date: 23-Nov-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006772  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006772-001

**Client Sample ID:** EFF-11-7  
**Collection Date:** 11/7/2011 12:45:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>TURBIDITY</b>							
<b>SM 2130B</b>							
RunID: <b>WETCHEM_111108B</b>	QC Batch: <b>R82110</b>			PrepDate:			Analyst: <b>CEI</b>
Turbidity	0.13	0.10	0.10	NTU		1	11/8/2011
<b>AMMONIA-N</b>							
<b>SM4500-NH3C</b>							
RunID: <b>WETCHEM_111113A</b>	QC Batch: <b>38303</b>			PrepDate:	<b>11/11/2011</b>		Analyst: <b>CEI</b>
Nitrogen, Ammonia (As N)	0.052	0.030	0.10	J mg/L		1	11/13/2011
<b>SEMOVOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
<b>EPA 3510C</b>				<b>EPA 8270C</b>			
RunID: <b>MS4_111109B</b>	QC Batch: <b>38268</b>			PrepDate:	<b>11/8/2011</b>		Analyst: <b>MDM</b>
1,2-Diphenylhydrazine	ND	3.6	10	µg/L		1	11/9/2011 11:36 AM
2,4,6-Trichlorophenol	ND	4.5	10	µg/L		1	11/9/2011 11:36 AM
2,4-Dichlorophenol	ND	4.3	10	µg/L		1	11/9/2011 11:36 AM
2,4-Dimethylphenol	ND	3.6	10	µg/L		1	11/9/2011 11:36 AM
2,4-Dinitrophenol	ND	3.3	50	µg/L		1	11/9/2011 11:36 AM
2,4-Dinitrotoluene	ND	3.8	10	µg/L		1	11/9/2011 11:36 AM
2,6-Dinitrotoluene	ND	4.0	10	µg/L		1	11/9/2011 11:36 AM
2-Chloronaphthalene	ND	4.0	10	µg/L		1	11/9/2011 11:36 AM
2-Chlorophenol	ND	3.7	10	µg/L		1	11/9/2011 11:36 AM
2-Nitrophenol	ND	4.7	10	µg/L		1	11/9/2011 11:36 AM
3,3'-Dichlorobenzidine	ND	3.6	20	µg/L		1	11/9/2011 11:36 AM
4,6-Dinitro-2-methylphenol	ND	2.9	50	µg/L		1	11/9/2011 11:36 AM
4-Bromophenyl-phenylether	ND	3.9	10	µg/L		1	11/9/2011 11:36 AM
4-Chloro-3-methylphenol	ND	3.4	50	µg/L		1	11/9/2011 11:36 AM
4-Chlorophenyl-phenylether	ND	3.5	10	µg/L		1	11/9/2011 11:36 AM
4-Nitrophenol	ND	1.5	50	µg/L		1	11/9/2011 11:36 AM
Acenaphthene	ND	4.2	10	µg/L		1	11/9/2011 11:36 AM
Acenaphthylene	ND	3.9	10	µg/L		1	11/9/2011 11:36 AM
Anthracene	ND	3.7	10	µg/L		1	11/9/2011 11:36 AM
Benzidine (M)	ND	2.3	50	µg/L		1	11/9/2011 11:36 AM
Benzo(a)anthracene	ND	5.2	10	µg/L		1	11/9/2011 11:36 AM
Benzo(a)pyrene	ND	5.5	10	µg/L		1	11/9/2011 11:36 AM
Benzo(b)fluoranthene	ND	5.7	10	µg/L		1	11/9/2011 11:36 AM
Benzo(g,h,i)perylene	ND	5.8	10	µg/L		1	11/9/2011 11:36 AM
Benzo(k)fluoranthene	ND	5.4	10	µg/L		1	11/9/2011 11:36 AM
Bis(2-chloroethoxy)methane	ND	4.6	10	µg/L		1	11/9/2011 11:36 AM

**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

# ANALYTICAL RESULTS

Print Date: 23-Nov-11

**Advanced Technology Laboratories, Inc.**

**CLIENT:** CH2M HILL

**Client Sample ID:** EFF-11-7

**Lab Order:** N006772

**Collection Date:** 11/7/2011 12:45:00 PM

**Project:** SFPP - Norwalk Site

**Matrix:** WASTEWATER

**Lab ID:** N006772-001

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>SEMOVOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
	<b>EPA 3510C</b>			<b>EPA 8270C</b>			
RunID: <b>MS4_111109B</b>	QC Batch: <b>38268</b>			PrepDate:	<b>11/8/2011</b>		<b>Analyst: MDM</b>
Bis(2-chloroethyl)ether	ND	5.5	10	µg/L	1	11/9/2011 11:36 AM	
Bis(2-chloroisopropyl)ether	ND	4.3	10	µg/L	1	11/9/2011 11:36 AM	
Bis(2-ethylhexyl)phthalate	ND	2.7	10	µg/L	1	11/9/2011 11:36 AM	
Butylbenzylphthalate	ND	3.4	10	µg/L	1	11/9/2011 11:36 AM	
Chrysene	ND	2.3	10	µg/L	1	11/9/2011 11:36 AM	
Di-n-butylphthalate	ND	3.0	10	µg/L	1	11/9/2011 11:36 AM	
Di-n-octylphthalate	ND	3.0	10	µg/L	1	11/9/2011 11:36 AM	
Dibenz(a,h)anthracene	ND	5.7	10	µg/L	1	11/9/2011 11:36 AM	
Diethylphthalate	ND	3.3	10	µg/L	1	11/9/2011 11:36 AM	
Dimethylphthalate	ND	3.7	10	µg/L	1	11/9/2011 11:36 AM	
Fluoranthene	ND	3.1	10	µg/L	1	11/9/2011 11:36 AM	
Fluorene	ND	3.6	10	µg/L	1	11/9/2011 11:36 AM	
Hexachlorobenzene	ND	4.0	10	µg/L	1	11/9/2011 11:36 AM	
Hexachlorocyclopentadiene	ND	4.4	10	µg/L	1	11/9/2011 11:36 AM	
Hexachloroethane	ND	4.7	10	µg/L	1	11/9/2011 11:36 AM	
Indeno(1,2,3-cd)pyrene	ND	5.6	10	µg/L	1	11/9/2011 11:36 AM	
Isophorone	ND	4.4	10	µg/L	1	11/9/2011 11:36 AM	
N-Nitrosodi-n-propylamine	ND	5.1	10	µg/L	1	11/9/2011 11:36 AM	
N-Nitrosodimethylamine	ND	3.1	50	µg/L	1	11/9/2011 11:36 AM	
N-Nitrosodiphenylamine	ND	4.0	10	µg/L	1	11/9/2011 11:36 AM	
Nitrobenzene	ND	4.6	10	µg/L	1	11/9/2011 11:36 AM	
Pentachlorophenol	ND	3.0	50	µg/L	1	11/9/2011 11:36 AM	
Phenanthrene	ND	3.7	50	µg/L	1	11/9/2011 11:36 AM	
Phenol	ND	1.5	10	µg/L	1	11/9/2011 11:36 AM	
Pyrene	ND	3.2	10	µg/L	1	11/9/2011 11:36 AM	
Surr: 1,2-Dichlorobenzene-d4	47.7	0	27-100	%REC	1	11/9/2011 11:36 AM	
Surr: 2,4,6-Tribromophenol	64.5	0	42-124	%REC	1	11/9/2011 11:36 AM	
Surr: 2-Chlorophenol-d4	54.2	0	34-98	%REC	1	11/9/2011 11:36 AM	
Surr: 2-Fluorobiphenyl	53.6	0	48-120	%REC	1	11/9/2011 11:36 AM	
Surr: 2-Fluorophenol	47.1	0	20-120	%REC	1	11/9/2011 11:36 AM	
Surr: 4-Terphenyl-d14	79.2	0	51-135	%REC	1	11/9/2011 11:36 AM	
Surr: Nitrobenzene-d5	56.1	0	41-120	%REC	1	11/9/2011 11:36 AM	
Surr: Phenol-d5	40.9	0	20-120	%REC	1	11/9/2011 11:36 AM	

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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



**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 23-Nov-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006772  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006772-001

**Client Sample ID:** EFF-11-7  
**Collection Date:** 11/7/2011 12:45:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**
**EPA 8260B**

RunID: MS1_111108B	QC Batch: D11VW161			PrepDate:		Analyst: QBM
1,1,1-Trichloroethane	ND	0.068	1.0	µg/L	1	11/9/2011 01:32 AM
1,1,2,2-Tetrachloroethane	ND	0.054	1.0	µg/L	1	11/9/2011 01:32 AM
1,1,2-Trichloroethane	ND	0.083	1.0	µg/L	1	11/9/2011 01:32 AM
1,1-Dichloroethane	ND	0.099	0.50	µg/L	1	11/9/2011 01:32 AM
1,1-Dichloroethene	ND	0.094	1.0	µg/L	1	11/9/2011 01:32 AM
1,2,4-Trichlorobenzene	ND	0.12	1.0	µg/L	1	11/9/2011 01:32 AM
1,2-Dichlorobenzene	ND	0.070	1.0	µg/L	1	11/9/2011 01:32 AM
1,2-Dichloroethane	ND	0.17	0.50	µg/L	1	11/9/2011 01:32 AM
1,2-Dichloropropane	ND	0.085	1.0	µg/L	1	11/9/2011 01:32 AM
1,3-Dichlorobenzene	ND	0.090	1.0	µg/L	1	11/9/2011 01:32 AM
1,4-Dichlorobenzene	ND	0.092	1.0	µg/L	1	11/9/2011 01:32 AM
2-Butanone	ND	1.0	10	µg/L	1	11/9/2011 01:32 AM
2-Chloroethyl vinyl ether	ND	0.14	1.0	µg/L	1	11/12/2011 02:34 PM
Acrolein	ND	4.3	20	µg/L	1	11/9/2011 01:32 AM
Acrylonitrile	ND	0.61	20	µg/L	1	11/9/2011 01:32 AM
Benzene	ND	0.075	1.0	µg/L	1	11/9/2011 01:32 AM
Bromodichloromethane	ND	0.063	1.0	µg/L	1	11/9/2011 01:32 AM
Bromoform	ND	0.086	1.0	µg/L	1	11/9/2011 01:32 AM
Bromomethane	ND	0.13	1.0	µg/L	1	11/9/2011 01:32 AM
Carbon tetrachloride	ND	0.10	1.0	µg/L	1	11/9/2011 01:32 AM
Chlorobenzene	ND	0.092	1.0	µg/L	1	11/9/2011 01:32 AM
Chloroethane	ND	0.14	1.0	µg/L	1	11/9/2011 01:32 AM
Chloroform	ND	0.058	1.0	µg/L	1	11/9/2011 01:32 AM
Chloromethane	ND	0.054	1.0	µg/L	1	11/9/2011 01:32 AM
cis-1,3-Dichloropropene	ND	0.10	1.0	µg/L	1	11/9/2011 01:32 AM
Di-isopropyl ether	ND	0.072	1.0	µg/L	1	11/9/2011 01:32 AM
Dibromochloromethane	ND	0.061	1.0	µg/L	1	11/9/2011 01:32 AM
Ethylbenzene	ND	0.051	1.0	µg/L	1	11/9/2011 01:32 AM
Hexachlorobutadiene	ND	0.17	1.0	µg/L	1	11/9/2011 01:32 AM
Methylene chloride	ND	0.10	2.0	µg/L	1	11/9/2011 01:32 AM
Naphthalene	ND	0.056	1.0	µg/L	1	11/9/2011 01:32 AM
Tert-amyl methyl ether	ND	0.10	1.0	µg/L	1	11/9/2011 01:32 AM
Tetrachloroethene	ND	0.13	1.0	µg/L	1	11/9/2011 01:32 AM
Toluene	ND	0.12	2.0	µg/L	1	11/9/2011 01:32 AM
trans-1,2-Dichloroethene	ND	0.094	1.0	µg/L	1	11/9/2011 01:32 AM
trans-1,3-Dichloropropene	ND	0.10	1.0	µg/L	1	11/9/2011 01:32 AM

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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



# ANALYTICAL RESULTS

Print Date: 23-Nov-11

**Advanced Technology Laboratories, Inc.**

**CLIENT:** CH2M HILL  
**Lab Order:** N006772  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006772-001

**Client Sample ID:** EFF-11-7  
**Collection Date:** 11/7/2011 12:45:00 PM  
**Matrix:** WASTEWATER

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

**EPA 8260B**

RunID: MS1_111108B	QC Batch: D11VW161		PrepDate:		Analyst: QBM
Trichloroethene	ND	0.060	1.0	µg/L	1 11/9/2011 01:32 AM
Vinyl chloride	ND	0.12	1.0	µg/L	1 11/9/2011 01:32 AM
Surr: 1,2-Dichloroethane-d4	103	0	72-119	%REC	1 11/12/2011 02:34 PM
Surr: 1,2-Dichloroethane-d4	79.7	0	72-119	%REC	1 11/9/2011 01:32 AM
Surr: 4-Bromofluorobenzene	103	0	76-119	%REC	1 11/12/2011 02:34 PM
Surr: 4-Bromofluorobenzene	105	0	76-119	%REC	1 11/9/2011 01:32 AM
Surr: Dibromofluoromethane	92.3	0	85-115	%REC	1 11/9/2011 01:32 AM
Surr: Dibromofluoromethane	105	0	85-115	%REC	1 11/12/2011 02:34 PM
Surr: Toluene-d8	102	0	81-120	%REC	1 11/12/2011 02:34 PM
Surr: Toluene-d8	108	0	81-120	%REC	1 11/9/2011 01:32 AM

**ORGANOCHLORINE PESTICIDES BY GC/ECD**

**EPA 3510C**

**EPA 8081A**

RunID: GC7_111110A	QC Batch: 38265		PrepDate:	11/8/2011	Analyst: MDM
4,4'-DDD	ND	0.0050	0.050	µg/L	1 11/11/2011 01:11 AM
4,4'-DDE	ND	0.0050	0.050	µg/L	1 11/11/2011 01:11 AM
4,4'-DDT	ND	0.0050	0.050	µg/L	1 11/11/2011 01:11 AM
Aldrin	ND	0.0042	0.025	µg/L	1 11/11/2011 01:11 AM
alpha-BHC	ND	0.0045	0.025	µg/L	1 11/11/2011 01:11 AM
beta-BHC	ND	0.0034	0.025	µg/L	1 11/11/2011 01:11 AM
Chlordane	ND	0.041	0.25	µg/L	1 11/11/2011 01:11 AM
delta-BHC	ND	0.0042	0.025	µg/L	1 11/11/2011 01:11 AM
Dieldrin	ND	0.0047	0.050	µg/L	1 11/11/2011 01:11 AM
Endosulfan I	ND	0.0037	0.025	µg/L	1 11/11/2011 01:11 AM
Endosulfan II	ND	0.0045	0.050	µg/L	1 11/11/2011 01:11 AM
Endosulfan sulfate	ND	0.0065	0.050	µg/L	1 11/11/2011 01:11 AM
Endrin	ND	0.0034	0.050	µg/L	1 11/11/2011 01:11 AM
Endrin aldehyde	ND	0.0042	0.050	µg/L	1 11/11/2011 01:11 AM
gamma-BHC	ND	0.0042	0.025	µg/L	1 11/11/2011 01:11 AM
Heptachlor	ND	0.0049	0.025	µg/L	1 11/11/2011 01:11 AM
Heptachlor epoxide	ND	0.0048	0.025	µg/L	1 11/11/2011 01:11 AM
Toxaphene	ND	0.26	2.5	µg/L	1 11/11/2011 01:11 AM
Surr: Tetrachloro-m-xylene	60.7	0	33-138	%REC	1 11/11/2011 01:11 AM
Surr: Decachlorobiphenyl	65.7	0	29-135	%REC	1 11/11/2011 01:11 AM

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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



**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**  
**Print Date:** 23-Nov-11

**CLIENT:** CH2M HILL  
**Lab Order:** N006772  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N006772-001

**Client Sample ID:** EFF-11-7  
**Collection Date:** 11/7/2011 12:45:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>PCBS BY GC/ECD</b>							
	<b>EPA 3510C</b>				<b>EPA 8082</b>		
RunID: <b>GC5_111109A</b>	QC Batch: <b>38265</b>				PrepDate: <b>11/8/2011</b>		Analyst: <b>MDM</b>
Aroclor 1016	ND	0.070	0.50		µg/L	1	11/9/2011 02:05 PM
Aroclor 1221	ND	0.23	1.0		µg/L	1	11/9/2011 02:05 PM
Aroclor 1232	ND	0.12	0.50		µg/L	1	11/9/2011 02:05 PM
Aroclor 1242	ND	0.13	0.50		µg/L	1	11/9/2011 02:05 PM
Aroclor 1248	ND	0.070	0.50		µg/L	1	11/9/2011 02:05 PM
Aroclor 1254	ND	0.070	0.50		µg/L	1	11/9/2011 02:05 PM
Aroclor 1260	ND	0.050	0.50		µg/L	1	11/9/2011 02:05 PM
Surr: Decachlorobiphenyl	69.7	0	29-133	%REC		1	11/9/2011 02:05 PM
Surr: Tetrachloro-m-xylene	54.4	0	50-120	%REC		1	11/9/2011 02:05 PM
<b>MERCURY BY COLD VAPOR TECHNIQUE</b>							
	<b>EPA 245.1</b>						
RunID: <b>AA1_111109A</b>	QC Batch: <b>38270</b>				PrepDate: <b>11/8/2011</b>		Analyst: <b>CEI</b>
Mercury	ND	0.023	0.050		µg/L	1	11/9/2011
<b>ICPMS METALS</b>							
	<b>EPA 200.8</b>				<b>EPA 200.8</b>		
RunID: <b>ICP7_111108A</b>	QC Batch: <b>38263</b>				PrepDate: <b>11/8/2011</b>		Analyst: <b>JT</b>
Antimony	0.13	0.019	0.50	J	µg/L	1	11/8/2011 04:24 PM
Arsenic	14	0.010	0.10		µg/L	1	11/8/2011 04:24 PM
Beryllium	0.034	0.0090	0.50	J	µg/L	1	11/8/2011 04:24 PM
Cadmium	ND	0.020	0.50		µg/L	1	11/8/2011 04:24 PM
Chromium	0.35	0.0080	0.50	J	µg/L	1	11/8/2011 04:24 PM
Copper	1.2	0.010	0.50		µg/L	1	11/8/2011 04:24 PM
Lead	ND	0.11	2.5		µg/L	5	11/8/2011 04:41 PM
Nickel	0.33	0.086	1.0	J	µg/L	1	11/8/2011 04:24 PM
Selenium	0.16	0.018	0.50	J	µg/L	1	11/8/2011 04:24 PM
Silver	0.17	0.025	2.5	J	µg/L	5	11/8/2011 04:41 PM
Thallium	ND	0.22	2.5		µg/L	5	11/8/2011 04:41 PM
Zinc	12	0.16	10		µg/L	1	11/8/2011 04:24 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
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ND Not Detected at the Reporting Limit  
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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



# Advanced Technology Laboratories, Inc.

Date: 23-Nov-11

## ANALYTICAL QC SUMMARY REPORT

**CLIENT:** CH2M HILL

**Work Order:** N006772

**Project:** SFPP - Norwalk Site

**TestCode:** 200.8\_W

Sample ID: <b>MB-38263</b>	SampType: <b>MBLK</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>
Client ID: <b>PBW</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322720</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Antimony	0.045	0.50			
Arsenic	ND	0.10			
Beryllium	ND	0.50			
Cadmium	ND	0.50			
Chromium	ND	0.50			
Copper	ND	0.50			
Lead	ND	0.50			
Nickel	ND	1.0			
Silver	0.068	0.50			
Thallium	ND	0.50			
Zinc	ND	10			

Sample ID: <b>LCS-38263</b>	SampType: <b>LCS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>
Client ID: <b>LCSW</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>		Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322721</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Antimony	9.390	0.50	10.00	0	93.9
Arsenic	9.580	0.10	10.00	0	95.8
Beryllium	9.382	0.50	10.00	0	93.8
Cadmium	9.717	0.50	10.00	0	97.2
Chromium	9.479	0.50	10.00	0	94.8
Copper	11.442	0.50	10.00	0	114
Lead	9.519	0.50	10.00	0	95.2
Nickel	9.831	1.0	10.00	0	98.3
Silver	11.176	0.50	10.00	0	112
Thallium	9.639	0.50	10.00	0	96.4
Zinc	96.879	10	100.0	0	96.9

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W

Sample ID: <b>N006771-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>						
Client ID: <b>zzzzzz</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>	EPA 200.8	Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322727</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.231	0.50	10.00	0.2128	100	75	125				
Arsenic	22.856	0.10	10.00	13.65	92.1	75	125				
Beryllium	10.251	0.50	10.00	0.05091	102	75	125				
Cadmium	9.168	0.50	10.00	0	91.7	75	125				
Chromium	10.206	0.50	10.00	0.4603	97.5	75	125				
Copper	10.123	0.50	10.00	1.721	84.0	75	125				
Nickel	9.422	1.0	10.00	0	94.2	75	125				
Zinc	93.737	10	100.0	13.17	80.6	75	125				
Sample ID: <b>N006771-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>						
Client ID: <b>zzzzzz</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>	EPA 200.8	Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322728</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.061	2.5	10.00	0	90.6	75	125				
Silver	11.259	2.5	10.00	0.6443	106	75	125				
Thallium	10.789	2.5	10.00	0	108	75	125				
Sample ID: <b>N006771-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82074</b>						
Client ID: <b>zzzzzz</b>	Batch ID: <b>38263</b>	TestNo: <b>EPA 200.8</b>	EPA 200.8	Analysis Date: <b>11/8/2011</b>	SeqNo: <b>1322729</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.283	0.50	10.00	0.2128	101	75	125	10.23	0.503	20	
Arsenic	22.659	0.10	10.00	13.65	90.1	75	125	22.86	0.867	20	
Beryllium	10.412	0.50	10.00	0.05091	104	75	125	10.25	1.56	20	
Cadmium	9.202	0.50	10.00	0	92.0	75	125	9.168	0.370	20	
Chromium	10.086	0.50	10.00	0.4603	96.3	75	125	10.21	1.19	20	
Copper	10.128	0.50	10.00	1.721	84.1	75	125	10.12	0.0484	20	
Nickel	9.607	1.0	10.00	0	96.1	75	125	9.422	1.94	20	
Zinc	92.339	10	100.0	13.17	79.2	75	125	93.74	1.50	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W

Sample ID: N006771-001G-MSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82074						
Client ID: ZZZZZZ	Batch ID: 38263	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 11/8/2011	SeqNo: 1322733						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.072	2.5	10.00	0	90.7	75	125	9.061	0.124	20	
Silver	11.475	2.5	10.00	0.6443	108	75	125	11.26	1.90	20	
Thallium	10.383	2.5	10.00	0	104	75	125	10.79	3.83	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 2130\_W

Sample ID: <b>N006772-001JDUP</b>	SampType: <b>DUP</b>	TestCode: <b>2130_W</b>	Units: <b>NTU</b>	Prep Date:	RunNo: <b>82110</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82110</b>	TestNo: <b>SM 2130B</b>		Analysis Date:	SeqNo: <b>1323939</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Turbidity	0.150	0.10				0.1300	0.1300	0.1300	14.3	30	
Sample ID: <b>MB-82110</b>	SampType: <b>MBLK</b>	TestCode: <b>2130_W</b>	Units: <b>NTU</b>	Prep Date:	RunNo: <b>82110</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R82110</b>	TestNo: <b>SM 2130B</b>		Analysis Date:	SeqNo: <b>1323940</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Turbidity	ND	0.10									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 245.1\_W\_LL

Sample ID: <b>LCS-38270</b>	SampType: <b>LCS</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322460</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.680	0.050	2.500	0	107	85	115				
Sample ID: <b>MB-38270</b>	SampType: <b>MBLK</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>PBW</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322461</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.050									
Sample ID: <b>N006771-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>zzzzzz</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322463</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.432	0.050	2.500	0	97.3	75	125				
Sample ID: <b>N006771-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82072</b>						
Client ID: <b>zzzzzz</b>	Batch ID: <b>38270</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1322464</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.484	0.050	2.500	0	99.4	75	125	2.432	2.11	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 350.2\_4500NH3C\_WPGE

Sample ID:	LCS-38303	SampType:	LCS	TestCode:	350.2_4500N	Units:	mg/L	Prep Date:	11/11/2011	RunNo:	82111	
Client ID:	LCSW	Batch ID:	38303	TestNo:	SM4500-NH3			Analysis Date:	11/13/2011	SeqNo:	1323964	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)		0.900	0.10	1.000	0	90.0	85	115				
Sample ID:	MB-38303	SampType:	MBLK	TestCode:	350.2_4500N	Units:	mg/L	Prep Date:	11/11/2011	RunNo:	82111	
Client ID:	PBW	Batch ID:	38303	TestNo:	SM4500-NH3			Analysis Date:	11/13/2011	SeqNo:	1323965	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)		ND	0.10									
Sample ID:	N006772-001H-MS	SampType:	MS	TestCode:	350.2_4500N	Units:	mg/L	Prep Date:	11/11/2011	RunNo:	82111	
Client ID:	zzzzzz	Batch ID:	38303	TestNo:	SM4500-NH3			Analysis Date:	11/13/2011	SeqNo:	1323967	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)		2.033	0.10	2.000	0.05200	99.0	75	125				
Sample ID:	N006772-001H-MSD	SampType:	MSD	TestCode:	350.2_4500N	Units:	mg/L	Prep Date:	11/11/2011	RunNo:	82111	
Client ID:	zzzzzz	Batch ID:	38303	TestNo:	SM4500-NH3			Analysis Date:	11/13/2011	SeqNo:	1323968	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)		2.038	0.10	2.000	0.05200	99.3	75	125	2.033	0.246	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8081\_W\_PGE

Sample ID: N006772-001KMS SampType: **MS** TestCode: 8081\_W\_PGE Units: **µg/L** Prep Date: 11/8/2011 RunNo: 82095

Client ID: ZZZZZZ Batch ID: 38265 TestNo: **EPA 8081A** **EPA 3510C** Analysis Date: 11/11/2011 SeqNo: 1323602

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.388	0.050	0.5000	0	77.6	50	139				
4,4'-DDE	0.366	0.050	0.5000	0	73.3	48	137				
4,4'-DDT	0.398	0.050	0.5000	0	79.6	47	138				
Aldrin	0.338	0.025	0.5000	0	67.6	42	138				
alpha-BHC	0.368	0.025	0.5000	0	73.6	60	128				
beta-BHC	0.356	0.025	0.5000	0	71.2	66	126				
delta-BHC	0.430	0.025	0.5000	0	86.1	46	136				
Dieldrin	0.389	0.050	0.5000	0	77.7	62	129				
Endosulfan I	0.367	0.025	0.5000	0	73.3	49	120				
Endosulfan II	0.385	0.050	0.5000	0	77.1	42	130				
Endosulfan sulfate	0.508	0.050	0.5000	0	102	54	137				
Endrin	0.383	0.050	0.5000	0	76.7	56	134				
Endrin aldehyde	0.379	0.050	0.5000	0	75.7	56	137				
gamma-BHC	0.378	0.025	0.5000	0	75.6	30	146				
Heptachlor	0.432	0.025	0.5000	0	86.4	51	128				
Heptachlor epoxide	0.361	0.025	0.5000	0	72.2	62	131				
Surr: Tetrachloro-m-xylylene	0.293	0.5000			58.5	33	138				
Surr: Decachlorobiphenyl	0.331	0.5000			66.3	29	135				
Sample ID: N006772-001KMSD	SampType: <b>MSD</b> TestCode: 8081_W_PGE Units: <b>µg/L</b> Prep Date: 11/8/2011 RunNo: 82095	Client ID: ZZZZZZ Batch ID: 38265 TestNo: <b>EPA 8081A</b> <b>EPA 3510C</b> Analysis Date: 11/11/2011 SeqNo: 1323603									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.395	0.050	0.5000	0	78.9	50	139	0.3380	1.68	30	H
4,4'-DDE	0.368	0.050	0.5000	0	73.6	48	137	0.3663	0.524	30	R
4,4'-DDT	0.395	0.050	0.5000	0	79.0	47	138	0.3981	0.820	30	
Aldrin	0.317	0.025	0.5000	0	63.3	42	138	0.3380	6.54	30	
alpha-BHC	0.327	0.025	0.5000	0	65.5	60	128	0.3678	11.6	30	
beta-BHC	0.336	0.025	0.5000	0	67.3	66	126	0.3560	5.72	30	
delta-BHC	0.412	0.025	0.5000	0	82.5	46	136	0.4304	4.28	30	

**Qualifiers:**

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8081\_W\_PGE

Sample ID:	N006772-001KMSD	SampType:	MSD	TestCode:	8081_W_PGE	Units:	µg/L	Prep Date:	11/8/2011	RunNo:	82095	
Client ID:	ZZZZZZ	Batch ID:	38265	TestNo:	EPA 8081A	EPA 3510C		Analysis Date:	11/11/2011	SeqNo:	1323603	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dieldrin		0.389	0.050	0.5000	0	77.8	62	129	0.3885	0.0772	30	
Endosulfan I		0.364	0.025	0.5000	0	72.9	49	120	0.3666	0.601	30	
Endosulfan II		0.391	0.050	0.5000	0	78.2	42	130	0.3853	1.51	30	
Endosulfan sulfate		0.519	0.050	0.5000	0	104	54	137	0.5082	2.06	30	
Endrin		0.381	0.050	0.5000	0	76.3	56	134	0.3834	0.552	30	
Endrin aldehyde		0.384	0.050	0.5000	0	76.8	56	137	0.3787	1.34	30	
gamma-BHC		0.342	0.025	0.5000	0	68.4	30	146	0.3782	10.0	30	
Heptachlor		0.347	0.025	0.5000	0	69.3	51	128	0.4322	22.0	30	
Heptachlor epoxide		0.354	0.025	0.5000	0	70.8	62	131	0.3608	1.89	30	
Surr: Tetrachloro-m-xylylene		0.233		0.5000		46.5	33	138		0	30	
Surr: Decachlorobiphenyl		0.331		0.5000		66.3	29	135		0	30	
Sample ID:	LCS-38265_OCP	SampType:	LCS	TestCode:	8081_W_PGE	Units:	µg/L	Prep Date:	11/8/2011	RunNo:	82095	
Client ID:	LCSW	Batch ID:	38265	TestNo:	EPA 8081A	EPA 3510C		Analysis Date:	11/11/2011	SeqNo:	1323604	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD		0.426	0.050	0.5000	0	85.3	50	139				
4,4'-DDE		0.412	0.050	0.5000	0	82.5	48	137				
4,4'-DDT		0.445	0.050	0.5000	0	88.9	47	138				
Aldrin		0.378	0.025	0.5000	0	75.5	42	138				
alpha-BHC		0.395	0.025	0.5000	0	79.0	60	128				
beta-BHC		0.407	0.025	0.5000	0	81.4	66	126				
delta-BHC		0.448	0.025	0.5000	0	89.5	46	136				
Dieldrin		0.429	0.050	0.5000	0	85.9	62	129				
Endosulfan I		0.399	0.025	0.5000	0	79.8	49	120				
Endosulfan II		0.424	0.050	0.5000	0	84.8	42	130				
Endosulfan sulfate		0.529	0.050	0.5000	0	106	54	137				
Endrin		0.414	0.050	0.5000	0	82.8	56	134				
Endrin aldehyde		0.418	0.050	0.5000	0	83.7	56	137				
gamma-BHC		0.401	0.025	0.5000	0	80.2	30	146				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8081\_W\_PGE

Sample ID: LCS-38265_OCP	Samp Type: LCS	TestCode: 8081_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82095						
Client ID: LCSW	Batch ID: 38265	TestNo: EPA 8081A	EPA 3510C	Analysis Date: 11/11/2011	SeqNo: 1323604						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heptachlor	0.371	0.025	0.5000	0	74.1	51	128				
Heptachlor epoxide	0.390	0.025	0.5000	0	78.1	62	131				
Surr: Tetrachloro-m-xylene	0.319	0.5000			63.7	33	138				
Surr: Decachlorobiphenyl	0.345	0.5000			69.1	29	135				
Sample ID: MB-38265	Samp Type: MBLK	TestCode: 8081_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82095						
Client ID: PBW	Batch ID: 38265	TestNo: EPA 8081A	EPA 3510C	Analysis Date: 11/11/2011	SeqNo: 1323605						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.050									
4,4'-DDE	ND	0.050									
4,4'-DDT	ND	0.050									
Aldrin	ND	0.025									
alpha-BHC	ND	0.025									
beta-BHC	ND	0.025									
Chlordane	ND	0.25									
delta-BHC	ND	0.025									
Dieldrin	ND	0.050									
Endosulfan I	ND	0.025									
Endosulfan II	ND	0.050									
Endosulfan sulfate	ND	0.050									
Endrin	ND	0.050									
Endrin aldehyde	ND	0.050									
gamma-BHC	ND	0.025									
Heptachlor	ND	0.025									
Heptachlor epoxide	ND	0.025									
Toxaphene	ND	2.5									
Surr: Tetrachloro-m-xylene	0.347	0.5000			69.4	33	138				
Surr: Decachlorobiphenyl	0.314	0.5000			62.8	29	135				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8082\_W\_PGE

Sample ID: <b>LCS-38265_PCB</b>	SampType: <b>LCS</b>	TestCode: <b>8082_W_PGE</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82081</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>38265</b>	TestNo: <b>EPA 8082</b>	EPA 3510C	Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1323001</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.108	0.50	5.000	0	82.2	40	144				
Aroclor 1260	4.008	0.50	5.000	0	80.2	45	145				
Surr: Decachlorobiphenyl	0.340	0.5000			67.9	29	133				
Surr: Tetrachloro-m-xylene	0.327	0.5000			65.5	50	120				

Sample ID: <b>MB-38265</b>	SampType: <b>MBLK</b>	TestCode: <b>8082_W_PGE</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82081</b>						
Client ID: <b>PBW</b>	Batch ID: <b>38265</b>	TestNo: <b>EPA 8082</b>	EPA 3510C	Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1323002</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.50									
Aroclor 1221	ND	1.0									
Aroclor 1232	ND	0.50									
Aroclor 1242	ND	0.50									
Aroclor 1248	ND	0.50									
Aroclor 1254	ND	0.50									
Aroclor 1260	ND	0.50									
Surr: Decachlorobiphenyl	0.341	0.5000			68.1	29	133				
Surr: Tetrachloro-m-xylene	0.355	0.5000			71.1	50	120				

Sample ID: <b>N006772-001BMS</b>	SampType: <b>MS</b>	TestCode: <b>8082_W_PGE</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82081</b>						
Client ID: <b>zzzzzz</b>	Batch ID: <b>38265</b>	TestNo: <b>EPA 8082</b>	EPA 3510C	Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1323004</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	3.525	0.50	5.000	0	70.5	40	144				
Aroclor 1260	3.766	0.50	5.000	0	75.3	45	145				
Surr: Decachlorobiphenyl	0.353	0.5000			70.6	29	133				
Surr: Tetrachloro-m-xylene	0.231	0.5000			46.3	50	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8082\_W\_PGE

Sample ID: N006772-001BMSD	SampType: MSD	TestCode: 8082_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82081						
Client ID: ZZZZZZ	Batch ID: 38265	TestNo: EPA 8082	EPA 3510C	Analysis Date: 11/9/2011	SeqNo: 1323005						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	3.519	0.50	5.000	0	70.4	40	144	3.525	0.177	30	
Aroclor 1260	3.891	0.50	5.000	0	77.8	45	145	3.766	3.26	30	
Surr: Decachlorobiphenyl	0.373	0.5000	0.5000		74.5	29	133		0		
Surr: Tetrachloro-m-xylene	0.213	0.5000	0.5000		42.6	50	120		0		S

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: D11108LCS2	Samp Type: LCS	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	Analysis Date: 11/8/2011		RunNo: 82073
Client ID: LCSW	Batch ID: D11VW161	TestNo: EPA 8260B			%RPD	RPD Ref Val	SeqNo: 1322626
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
1,1,1-Trichloroethane	15.520	1.0	20.00	0	77.6	67	132
1,1,2,2-Tetrachloroethane	19.580	1.0	20.00	0	97.9	63	128
1,1,2-Trichloroethane	17.640	1.0	20.00	0	88.2	75	125
1,1-Dichloroethane	19.210	0.50	20.00	0	96.0	69	133
1,1-Dichloroethene	18.990	1.0	20.00	0	95.0	68	130
1,2,4-Trichlorobenzene	18.230	1.0	20.00	0	91.2	66	134
1,2-Dichlorobenzene	19.160	1.0	20.00	0	95.8	71	122
1,2-Dichloroethane	18.930	0.50	20.00	0	94.6	69	132
1,2-Dichloropropane	17.400	1.0	20.00	0	87.0	75	125
1,3-Dichlorobenzene	18.870	1.0	20.00	0	94.4	75	124
1,4-Dichlorobenzene	18.680	1.0	20.00	0	93.4	74	123
2-Butanone	141.650	10	200.0	0	70.8	49	136
Acrolein	215.800	20	200.0	0	108	75	125
Acrylonitrile	177.250	20	200.0	0	88.6	75	125
Benzene	18.170	1.0	20.00	0	90.9	81	122
Bromodichloromethane	18.630	1.0	20.00	0	93.2	76	121
Bromoform	18.250	1.0	20.00	0	91.2	69	128
Bromomethane	19.240	1.0	20.00	0	96.2	53	141
Carbon tetrachloride	16.270	1.0	20.00	0	81.4	66	138
Chlorobenzene	19.110	1.0	20.00	0	95.6	81	122
Chloroethane	19.150	1.0	20.00	0	95.8	58	133
Chloroform	19.340	1.0	20.00	0	96.7	69	128
Chloromethane	17.740	1.0	20.00	0	88.7	56	131
cis-1,3-Dichloropropene	17.570	1.0	20.00	0	87.9	69	131
Di-isopropyl ether	18.270	1.0	20.00	0	91.4	70	130
Dibromochloromethane	19.170	1.0	20.00	0	95.9	66	133
Ethylbenzene	19.420	1.0	20.00	0	97.1	73	127
Hexachlorobutadiene	18.680	1.0	20.00	0	93.4	67	131
Methylene chloride	17.700	2.0	20.00	0	88.5	63	137
Naphthalene	18.260	1.0	20.00	0	91.3	54	138

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID:	D11108LCS2	SampType:	LCS	TestCode:	8260_WP_SF	Units:	µg/L	Prep Date:		RunNo:	82073	
Client ID:	LCSW	Batch ID:	D11VW161	TestNo:	EPA 8260B			Analysis Date:	11/8/2011	SeqNo:	1322626	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-amyl methyl ether		18.200	1.0	20.00	0	91.0	70	130				
Tetrachloroethene		19.160	1.0	20.00	0	95.8	66	128				
Toluene		18.900	2.0	20.00	0	94.5	77	122				
trans-1,2-Dichloroethene		20.340	1.0	20.00	0	102	63	137				
trans-1,3-Dichloropropene		17.670	1.0	20.00	0	88.4	59	135				
Trichloroethene		17.550	1.0	20.00	0	87.8	70	127				
Vinyl chloride		18.100	1.0	20.00	0	90.5	50	134				
Surr: 1,2-Dichloroethane-d4		22.640		25.00		90.6	72	119				
Surr: 4-Bromofluorobenzene		23.420		25.00		93.7	76	119				
Surr: Dibromofluoromethane		24.480		25.00		97.9	85	115				
Surr: Toluene-d8		23.830		25.00		95.3	81	120				
Sample ID:	N006715-001EMS	SampType:	MS	TestCode:	8260_WP_SF	Units:	µg/L	Prep Date:		RunNo:	82073	
Client ID:	ZZZZZZ	Batch ID:	D11VW161	TestNo:	EPA 8260B			Analysis Date:	11/8/2011	SeqNo:	1322627	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		15.590	1.0	20.00	0	78.0	67	132				
1,1,2,2-Tetrachloroethane		18.290	1.0	20.00	0	91.4	63	128				
1,1,2-Trichloroethane		17.200	1.0	20.00	0	86.0	75	125				
1,1-Dichloroethane		18.810	0.50	20.00	0	94.1	69	133				
1,1-Dichloroethene		17.060	1.0	20.00	0	85.3	68	130				
1,2,4-Trichlorobenzene		19.840	1.0	20.00	0	99.2	66	134				
1,2-Dichlorobenzene		19.160	1.0	20.00	0	95.8	71	122				
1,2-Dichloroethane		18.060	0.50	20.00	0	90.3	69	132				
1,2-Dichloropropane		17.510	1.0	20.00	0	87.6	75	125				
1,3-Dichlorobenzene		19.450	1.0	20.00	0	97.3	75	124				
1,4-Dichlorobenzene		19.130	1.0	20.00	0	95.7	74	123				
2-Butanone		100.290	10	200.0	0	50.1	49	136				
Acrolein		189.260	20	200.0	0	94.6	75	125				
Acrylonitrile		155.800	20	200.0	0	77.9	75	125				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: N006715-001EMS	Samp Type: MS	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82073						
Client ID: ZZZZZZ	Batch ID: D11VW161	TestNo: EPA 8260B		Analysis Date:	SeqNo: 1322627						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.340	1.0	20.00	0	91.7	81	122				
Bromodichloromethane	18.470	1.0	20.00	0	92.4	76	121				
Bromoform	17.110	1.0	20.00	0	85.6	69	128				
Bromomethane	19.130	1.0	20.00	0	95.7	53	141				
Carbon tetrachloride	16.350	1.0	20.00	0	81.8	66	138				
Chlorobenzene	19.310	1.0	20.00	0	96.6	81	122				
Chloroethane	19.760	1.0	20.00	0	98.8	58	133				
Chloroform	19.020	1.0	20.00	0	95.1	69	128				
Chloromethane	17.850	1.0	20.00	0	89.2	56	131				
cis-1,3-Dichloropropene	17.860	1.0	20.00	0	89.3	69	131				
Di-isopropyl ether	18.260	1.0	20.00	0	91.3	70	130				
Dibromochloromethane	18.500	1.0	20.00	0	92.5	66	133				
Ethylbenzene	19.890	1.0	20.00	0	99.4	73	127				
Hexachlorobutadiene	20.210	1.0	20.00	0	101	67	131				
Methylene chloride	17.130	2.0	20.00	0	85.7	63	137				
Naphthalene	17.590	1.0	20.00	0	88.0	54	138				
Tert-amyl methyl ether	18.370	1.0	20.00	0	91.9	70	130				
Tetrachloroethene	19.820	1.0	20.00	0	99.1	66	128				
Toluene	19.480	2.0	20.00	0	97.4	77	122				
trans-1,2-Dichloroethene	19.880	1.0	20.00	0	99.4	63	137				
trans-1,3-Dichloropropene	17.780	1.0	20.00	0	88.9	59	135				
Trichloroethene	18.010	1.0	20.00	0	90.1	70	127				
Vinyl chloride	18.290	1.0	20.00	0	91.4	50	134				
Surr: 1,2-Dichloroethane-d4	21.390		25.00		85.6	72	119				
Surr: 4-Bromofluorobenzene	24.080		25.00		96.3	76	119				
Surr: Dibromofluoromethane	24.130		25.00		96.5	85	115				
Surr: Toluene-d8	24.660		25.00		98.6	81	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: N006715-001EMSD	Samp Type: MSD	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82073						
Client ID: ZZZZZZ	Batch ID: D11VW161	TestNo: EPA 8260B		Analysis Date:	SeqNo: 1322628						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	16.030	1.0	20.00	0	80.2	67	132	15.59	2.78	20	
1,1,2,2-Tetrachloroethane	17.840	1.0	20.00	0	89.2	63	128	18.29	2.49	20	
1,1,2-Trichloroethane	16.410	1.0	20.00	0	82.0	75	125	17.20	4.70	20	
1,1-Dichloroethane	19.200	0.50	20.00	0	96.0	69	133	18.81	2.05	20	
1,1-Dichloroethene	19.570	1.0	20.00	0	97.9	68	130	17.06	13.7	20	
1,2,4-Trichlorobenzene	19.060	1.0	20.00	0	95.3	66	134	19.84	4.01	20	
1,2-Dichlorobenzene	19.750	1.0	20.00	0	98.8	71	122	19.16	3.03	20	
1,2-Dichloroethane	18.100	0.50	20.00	0	90.5	69	132	18.06	0.221	20	
1,2-Dichloropropane	17.560	1.0	20.00	0	87.8	75	125	17.51	0.285	20	
1,3-Dichlorobenzene	20.070	1.0	20.00	0	100	75	124	19.45	3.14	20	
1,4-Dichlorobenzene	19.470	1.0	20.00	0	97.4	74	123	19.13	1.76	20	
2-Butanone	89.060	10	200.0	0	44.5	49	136	100.3	11.9	20	S
Acrolein	169.580	20	200.0	0	84.8	75	125	189.3	11.0	20	
Acrylonitrile	145.030	20	200.0	0	72.5	75	125	155.8	7.16	20	S
Benzene	18.810	1.0	20.00	0	94.1	81	122	18.34	2.53	20	
Bromodichloromethane	18.510	1.0	20.00	0	92.6	76	121	18.47	0.216	20	
Bromoform	16.630	1.0	20.00	0	83.2	69	128	17.11	2.85	20	
Bromomethane	19.590	1.0	20.00	0	98.0	53	141	19.13	2.38	20	
Carbon tetrachloride	17.030	1.0	20.00	0	85.2	66	138	16.35	4.07	20	
Chlorobenzene	20.010	1.0	20.00	0	100	81	122	19.31	3.56	20	
Chloroethane	20.390	1.0	20.00	0	102	58	133	19.76	3.14	20	
Chloroform	19.220	1.0	20.00	0	96.1	69	128	19.02	1.05	20	
Chloromethane	18.810	1.0	20.00	0	94.1	56	131	17.85	5.24	20	
cis-1,3-Dichloropropene	17.880	1.0	20.00	0	89.4	69	131	17.86	0.112	20	
Di-isopropyl ether	18.180	1.0	20.00	0	90.9	70	130	18.26	0.439	20	
Dibromochloromethane	18.310	1.0	20.00	0	91.6	66	133	18.50	1.03	20	
Ethylbenzene	20.590	1.0	20.00	0	103	73	127	19.89	3.46	20	
Hexachlorobutadiene	20.520	1.0	20.00	0	103	67	131	20.21	1.52	20	
Methylene chloride	17.480	2.0	20.00	0	87.4	63	137	17.13	2.02	20	
Naphthalene	15.500	1.0	20.00	0	77.5	54	138	17.59	12.6	20	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID:	N006715-001EMSD	SampType:	MSD	TestCode:	8260_WP_SF	Units:	µg/L	Prep Date:		RunNo:	82073	
Client ID:	ZZZZZZ	Batch ID:	D11VW161	TestNo:	EPA 8260B			Analysis Date:	11/8/2011	SeqNo:	1322628	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tert-amyl methyl ether		17.890	1.0	20.00	0	89.4	70	130	18.37	2.65	20	
Tetrachloroethene		20.430	1.0	20.00	0	102	66	128	19.82	3.03	20	
Toluene		19.770	2.0	20.00	0	98.8	77	122	19.48	1.48	20	
trans-1,2-Dichloroethene		20.330	1.0	20.00	0	102	63	137	19.88	2.24	20	
trans-1,3-Dichloropropene		16.970	1.0	20.00	0	84.8	59	135	17.78	4.66	20	
Trichloroethene		18.280	1.0	20.00	0	91.4	70	127	18.01	1.49	20	
Vinyl chloride		18.800	1.0	20.00	0	94.0	50	134	18.29	2.75	20	
Surr: 1,2-Dichloroethane-d4		21.120		25.00		84.5	72	119	0			
Surr: 4-Bromofluorobenzene		24.450		25.00		97.8	76	119	0			
Surr: Dibromofluoromethane		24.260		25.00		97.0	85	115	0			
Surr: Toluene-d8		24.920		25.00		99.7	81	120	0			

Sample ID:	D11108MB5	SampType:	MBLK	TestCode:	8260_WP_SF	Units:	µg/L	Prep Date:		RunNo:	82073	
Client ID:	PBW	Batch ID:	D11VW161	TestNo:	EPA 8260B			Analysis Date:	11/9/2011	SeqNo:	1322629	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane		ND	1.0									
1,1,2,2-Tetrachloroethane		ND	1.0									
1,1,2-Trichloroethane		ND	1.0									
1,1-Dichloroethane		ND	0.50									
1,1-Dichloroethene		ND	1.0									
1,2,4-Trichlorobenzene		ND	1.0									
1,2-Dichlorobenzene		ND	1.0									
1,2-Dichloroethane		ND	0.50									
1,2-Dichloropropane		ND	1.0									
1,3-Dichlorobenzene		ND	1.0									
1,4-Dichlorobenzene		ND	1.0									
2-Butanone		ND	1.0									
Acrolein		ND	20									
Acrylonitrile		ND	20									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID:	D11108MB5	Samp Type:	MBLK	TestCode:	8260_WP_SF	Units:	µg/L	Prep Date:	
Client ID:	PBW	Batch ID:	D11VW161	TestNo:	EPA 8260B			Analysis Date:	11/9/2011
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Benzene		ND	1.0						
Bromodichloromethane		ND	1.0						
Bromoform		ND	1.0						
Bromomethane		ND	1.0						
Carbon tetrachloride		ND	1.0						
Chlorobenzene		ND	1.0						
Chloroethane		ND	1.0						
Chloroform		ND	1.0						
Chloromethane		ND	1.0						
cis-1,3-Dichloropropene		ND	1.0						
Di-isopropyl ether		ND	1.0						
Dibromochloromethane		ND	1.0						
Ethylbenzene		ND	1.0						
Hexachlorobutadiene		ND	1.0						
Methylene chloride		ND	2.0						
Naphthalene		ND	1.0						
Tert-amyl methyl ether		ND	1.0						
Tetrachloroethene		ND	1.0						
Toluene		ND	2.0						
trans-1,2-Dichloroethene		ND	1.0						
trans-1,3-Dichloropropene		ND	1.0						
Trichloroethene		ND	1.0						
Vinyl chloride		ND	1.0						
Surr: 1,2-Dichloroethane-d4		22.080	25.00				88.3	72	119
Surr: 4-Bromofluorobenzene		26.500	25.00				106	76	119
Surr: Dibromofluoromethane		24.100	25.00				96.4	85	115
Surr: Toluene-d8		27.460	25.00				110	81	120

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D110811LCS		SampType: LCS	TestCode: 8260_WP_SF		Units: µg/L	Prep Date:		RunNo: 82145			
Client ID: LCSW		Batch ID: D11VW165	TestNo: EPA 8260B			Analysis Date: 11/12/2011		SeqNo: 1325266			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	19.750	1.0	20.00	0	98.8	70	130				
Surr: 1,2-Dichloroethane-d4	26.190		25.00		105	72	119				
Surr: 4-Bromofluorobenzene	24.370		25.00		97.5	76	119				
Surr: Dibromofluoromethane	25.660		25.00		103	85	115				
Surr: Toluene-d8	25.110		25.00		100	81	120				
Sample ID: N006772-001CMS		SampType: MS	TestCode: 8260_WP_SF		Units: µg/L	Prep Date:		RunNo: 82145			
Client ID: ZZZZZZ		Batch ID: D11VW165	TestNo: EPA 8260B			Analysis Date: 11/12/2011		SeqNo: 1325267			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	0.510	1.0	20.00	0	2.55	70	130				
Surr: 1,2-Dichloroethane-d4	23.860		25.00		95.4	72	119				
Surr: 4-Bromofluorobenzene	25.060		25.00		100	76	119				
Surr: Dibromofluoromethane	24.870		25.00		99.5	85	115				
Surr: Toluene-d8	24.550		25.00		98.2	81	120				
Sample ID: N006772-001CM SD		SampType: MSD	TestCode: 8260_WP_SF		Units: µg/L	Prep Date:		RunNo: 82145			
Client ID: ZZZZZZ		Batch ID: D11VW165	TestNo: EPA 8260B			Analysis Date: 11/12/2011		SeqNo: 1325268			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	ND	1.0	20.00	0	0	70	130	0.5100	0	20	S
Surr: 1,2-Dichloroethane-d4	25.450		25.00		102	72	119				
Surr: 4-Bromofluorobenzene	26.660		25.00		107	76	119				
Surr: Dibromofluoromethane	26.540		25.00		106	85	115				
Surr: Toluene-d8	26.020		25.00		104	81	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_SFPP

Sample ID: D111112MB1	Samp Type: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82145						
Client ID: PBW	Batch ID: D11VW165	TestNo: EPA 8260B		Analysis Date:	SeqNo: 1325269						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	ND	1.0									
Surr: 1,2-Dichloroethane-d4	28.850	25.00				115	72	119			
Surr: 4-Bromofluorobenzene	27.040	25.00				108	76	119			
Surr: Dibromofluoromethane	28.710	25.00				115	85	115			
Surr: Toluene-d8	26.000	25.00				104	81	120			

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Sample ID: LCS-38268	Samp Type: LCS	TestCode: 8270_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82083						
Client ID: LCSW	Batch ID: 38268	TestNo: EPA 8270C	EPA 3510C	Analysis Date: 11/9/2011	SeqNo: 1323027						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Diphenylhydrazine	76.200	10	100.0	0	76.2	60	117				
2,4,6-Trichlorophenol	69.920	10	100.0	0	69.9	49	126				
2,4-Dichlorophenol	66.390	10	100.0	0	66.4	48	120				
2,4-Dimethylphenol	65.560	10	100.0	0	65.6	28	120				
2,4-Dinitrophenol	73.140	50	100.0	0	73.1	25	130				
2,4-Dinitrotoluene	91.010	10	100.0	0	91.0	51	120				
2,6-Dinitrotoluene	85.770	10	100.0	0	85.8	49	120				
2-Chloronaphthalene	75.630	10	100.0	0	75.6	49	120				
2-Chlorophenol	62.870	10	100.0	0	62.9	37	120				
2-Nitrophenol	67.700	10	100.0	0	67.7	39	123				
3,3'-Dichlorobenzidine	142.440	20	200.0	0	71.2	20	120				
4,6-Dinitro-2-methylphenol	83.390	50	100.0	0	83.4	40	130				
4-Bromophenyl-phenyl/ether	84.940	10	100.0	0	84.9	52	120				
4-Chloro-3-methylphenol	70.940	50	100.0	0	70.9	47	120				
4-Chlorophenyl-phenyl/ether	76.990	10	100.0	0	77.0	50	120				
4-Nitrophenol	83.040	50	100.0	0	83.0	20	120				
Acenaphthene	71.750	10	100.0	0	71.8	47	120				
Acenaphthylene	71.630	10	100.0	0	71.6	50	120				
Anthracene	76.610	10	100.0	0	76.6	54	120				
Benzidine (M)	149.540	50	200.0	0	74.8	10	162				
Benz(a)anthracene	87.610	10	100.0	0	87.6	56	100				
Benz(a)pyrene	87.570	10	100.0	0	87.6	53	120				
Benz(b)fluoranthene	89.800	10	100.0	0	89.8	45	124				
Benz(g,h,i)perylene	88.130	10	100.0	0	88.1	38	123				
Benz(k)fluoranthene	90.430	10	100.0	0	90.4	45	124				
Bis(2-chloroethoxy)methane	77.400	10	100.0	0	77.4	46	120				
Bis(2-chloroethyl)ether	73.800	10	100.0	0	73.8	37	120				
Bis(2-chloroisopropyl)ether	75.760	10	100.0	0	75.8	26	131				
Bis(2-ethylhexyl)phthalate	96.170	10	100.0	0	96.2	42	126				
Butylbenzylphthalate	97.290	10	100.0	0	97.3	46	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Sample ID: LCS-38268	Samp Type: LCS	TestCode: 8270_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82083						
Client ID: LCSW	Batch ID: 38268	TestNo: EPA 8270C	EPA 3510C	Analysis Date: 11/9/2011	SeqNo: 1323027						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	87.610	10	100.0	0	87.6	55	120				
Di-n-butylphthalate	93.080	10	100.0	0	93.1	54	120				
Di-n-octylphthalate	95.840	10	100.0	0	95.8	37	137				
Dibenz(a,h)anthracene	91.390	10	100.0	0	91.4	42	127				
Diethylphthalate	90.800	10	100.0	0	90.8	41	120				
Dimethylphthalate	84.440	10	100.0	0	84.4	25	127				
Fluoranthene	85.200	10	100.0	0	85.2	54	120				
Fluorene	74.940	10	100.0	0	74.9	50	120				
Hexachlorobenzene	86.670	10	100.0	0	86.7	52	120				
Hexachlorocyclopentadiene	74.240	10	100.0	0	74.2	51	108				
Hexachloroethane	69.980	10	100.0	0	70.0	28	120				
Indeno(1,2,3-cd)pyrene	91.410	10	100.0	0	91.4	43	125				
Isophorone	87.020	10	100.0	0	87.0	50	120				
N-Nitrosodi-n-propylamine	75.490	10	100.0	0	75.5	34	128				
N-Nitrosodimethylamine	69.050	50	100.0	0	69.0	35	98				
N-Nitrosodiphenylamine	85.310	10	100.0	0	85.3	48	120				
Nitrobenzene	75.670	10	100.0	0	75.7	44	120				
Pentachlorophenol	81.640	50	100.0	0	81.6	38	120				
Phenanthrene	81.530	10	100.0	0	81.5	51	120				
Phenol	59.350	10	100.0	0	59.4	20	120				
Pyrene	84.850	10	100.0	0	84.8	49	128				
Surr: 1,2-Dichlorobenzene-d4	60.430	100.0			60.4	27	100				
Surr: 2,4,6-Tribromophenol	88.940	100.0			88.9	42	124				
Surr: 2-Chlorophenol-d4	73.320	100.0			73.3	34	98				
Surr: 2-Fluorobiphenyl	69.800	100.0			69.8	48	120				
Surr: 2-Fluorophenol	70.550	100.0			70.6	20	120				
Surr: 4-Terphenyl-d14	90.770	100.0			90.8	51	135				
Surr: Nitrobenzene-d5	75.440	100.0			75.4	41	120				
Surr: Phenol-d5	66.370	100.0			66.4	20	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Sample ID: <b>MB-38268</b>	Samp Type: <b>MBLK</b>	TestCode: <b>8270_W_PGE</b>	Units: <b>µg/L</b>	Prep Date: <b>11/8/2011</b>	RunNo: <b>82083</b>						
Client ID: <b>PBW</b>	Batch ID: <b>38268</b>	TestNo: <b>EPA 8270C</b>	<b>EPA 3510C</b>	Analysis Date: <b>11/9/2011</b>	SeqNo: <b>1323028</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Diphenylhydrazine	ND	10									
2,4,6-Trichlorophenol	ND	10									
2,4-Dichlorophenol	ND	10									
2,4-Dimethylphenol	ND	10									
2,4-Dinitrophenol	ND	50									
2,4-Dinitrotoluene	ND	10									
2,6-Dinitrotoluene	ND	10									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
2-Nitrophenol	ND	10									
3,3'-Dichlorobenzidine	ND	20									
4,6-Dinitro-2-methylphenol	ND	50									
4-Bromophenyl-phenyl/ether	ND	10									
4-Chloro-3-methylphenol	ND	50									
4-Chlorophenyl-phenyl/ether	ND	10									
4-Nitrophenol	ND	50									
Acenaphthene	ND	10									
Acenaphthylene	ND	10									
Anthracene	ND	10									
Benzidine (M)	ND	50									
Benz(a)anthracene	ND	10									
Benz(a)pyrene	ND	10									
Benz(b)fluoranthene	ND	10									
Benz(g,h,i)perylene	ND	10									
Benz(k)fluoranthene	ND	10									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	10									
Bis(2-chloroisopropyl)ether	ND	10									
Bis(2-ethylhexyl)phthalate	ND	10									
Butylbenzylphthalate	ND	10									

**Qualifiers:**

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E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out  
H Holding times for preparation or analysis exceeded  
R RPD outside accepted recovery limits  
Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Sample ID: MB-38268	Samp Type: MBLK	TestCode: 8270_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82083						
Client ID: PBW	Batch ID: 38268	TestNo: EPA 8270C	EPA 3510C	Analysis Date: 11/9/2011	SeqNo: 1323028						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	ND	10									
Di-n-butylphthalate	ND	10									
Di-n-octylphthalate	ND	10									
Dibenz(a,h)anthracene	ND	10									
Diethylphthalate	ND	10									
Dimethylphthalate	ND	10									
Fluoranthene	ND	10									
Fluorene	ND	10									
Hexachlorobenzene	ND	10									
Hexachlorocyclopentadiene	ND	10									
Hexachloroethane	ND	10									
Indeno(1,2,3-cd)pyrene	ND	10									
Isophorone	ND	10									
N-Nitrosodi-n-propylamine	ND	10									
N-Nitrosodimethylamine	ND	50									
N-Nitrosodiphenylamine	ND	10									
Nitrobenzene	ND	10									
Pentachlorophenol	ND	50									
Phenanthrene	ND	10									
Phenol	ND	10									
Pyrene	ND	10									
Surr: 1,2-Dichlorobenzene-d4	71,000	100.0									
Surr: 2,4,6-Tribromophenol	79,890	100.0									
Surr: 2-Chlorophenol-d4	78,760	100.0									
Surr: 2-Fluorobiphenyl	74,160	100.0									
Surr: 2-Fluorophenol	68,750	100.0									
Surr: 4-Terphenyl-d14	93,830	100.0									
Surr: Nitrobenzene-d5	81,620	100.0									
Surr: Phenol-d5	59,370	100.0									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Sample ID: N006772-001DMS	Samp Type: MS	TestCode: 8270_W_PGE	Units: µg/L	Prep Date: 11/8/2011	RunNo: 82083						
Client ID: ZZZZZZ	Batch ID: 38268	TestNo: EPA 8270C	EPA 3510C	Analysis Date: 11/9/2011	SeqNo: 1323030						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Diphenylhydrazine	80.840	10	100.0	0	80.8	60	60	117			
2,4,6-Trichlorophenol	69.710	10	100.0	0	69.7	49	49	126			
2,4-Dichlorophenol	60.870	10	100.0	0	60.9	48	48	120			
2,4-Dimethylphenol	60.140	10	100.0	0	60.1	28	28	120			
2,4-Dinitrophenol	72.390	50	100.0	0	72.4	25	25	130			
2,4-Dinitrotoluene	100.860	10	100.0	0	101	51	51	120			
2,6-Dinitrotoluene	97.320	10	100.0	0	97.3	49	49	120			
2-Chloronaphthalene	78.080	10	100.0	0	78.1	49	49	120			
2-Chlorophenol	56.570	10	100.0	0	56.6	37	37	120			
2-Nitrophenol	61.050	10	100.0	0	61.1	39	39	123			
3,3'-Dichlorobenzidine	144.290	20	200.0	0	72.1	20	20	120			
4,6-Dinitro-2-methylphenol	90.640	50	100.0	0	90.6	40	40	130			
4-Bromophenyl-phenyl/ether	91.260	10	100.0	0	91.3	52	52	120			
4-Chloro-3-methylphenol	73.150	50	100.0	0	73.2	47	47	120			
4-Chlorophenyl-phenyl/ether	82.350	10	100.0	0	82.4	50	50	120			
4-Nitrophenol	55.450	50	100.0	0	55.4	20	20	120			
Acenaphthene	74.570	10	100.0	0	74.6	47	47	120			
Acenaphthylene	73.980	10	100.0	0	74.0	50	50	120			
Anthracene	81.460	10	100.0	0	81.5	54	54	120			
Benzidine (M)	169.000	50	200.0	0	84.5	10	10	162			
Benz(a)anthracene	89.650	10	100.0	0	89.6	56	56	100			
Benz(a)pyrene	96.890	10	100.0	0	96.9	53	53	120			
Benz(b)fluoranthene	96.990	10	100.0	0	97.0	45	45	124			
Benz(g,h,i)perylene	96.290	10	100.0	0	96.3	38	38	123			
Benz(k)fluoranthene	100.370	10	100.0	0	100	45	45	124			
Bis(2-chloroethoxy)methane	71.440	10	100.0	0	71.4	46	46	120			
Bis(2-chloroethyl)ether	66.280	10	100.0	0	66.3	37	37	120			
Bis(2-chloroisopropyl)ether	69.870	10	100.0	0	69.9	26	26	131			
Bis(2-ethylhexyl)phthalate	98.840	10	100.0	0	98.8	42	42	126			
Butylbenzylphthalate	101.050	10	100.0	0	101	46	46	120			

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	Prep Date: 11/8/2011	Analysis Date: 11/9/2011	RunNo: 82083
											SeqNo: 1323030
Chrysene	90.000	10	100.0	0	90.0	55	120				
Di-n-butylphthalate	95.350	10	100.0	0	95.4	54	120				
Di-n-octylphthalate	105.780	10	100.0	0	106	37	137				
Dibenz(a,h)anthracene	100.570	10	100.0	0	101	42	127				
Diethylphthalate	94.870	10	100.0	0	94.9	41	120				
Dimethylphthalate	90.700	10	100.0	0	90.7	25	127				
Fluoranthene	88.740	10	100.0	0	88.7	54	120				
Fluorene	80.450	10	100.0	0	80.4	50	120				
Hexachlorobenzene	99.540	10	100.0	0	99.5	52	120				
Hexachlorocyclopentadiene	71.830	10	100.0	0	71.8	51	108				
Hexachloroethane	66.900	10	100.0	0	66.9	28	120				
Indeno(1,2,3-cd)pyrene	100.020	10	100.0	0	100	43	125				
Isophorone	88.200	10	100.0	0	88.2	50	120				
N-Nitrosodi-n-propylamine	71.250	10	100.0	0	71.3	34	128				
N-Nitrosodimethylamine	53.170	50	100.0	0	53.2	35	98				
N-Nitrosodiphenylamine	89.880	10	100.0	0	89.9	48	120				
Nitrobenzene	73.290	10	100.0	0	73.3	44	120				
Pentachlorophenol	78.130	50	100.0	0	78.1	38	120				
Phenanthrene	86.900	10	100.0	0	86.9	51	120				
Phenol	45.640	10	100.0	0	45.6	20	120				
Pyrene	88.150	10	100.0	0	88.2	49	128				
Surr: 1,2-Dichlorobenzene-d4	58.060	100.0	100.0	0	58.1	27	100				
Surr: 2,4,6-Tribromophenol	90.120	100.0	100.0	0	90.1	42	124				
Surr: 2-Chlorophenol-d4	63.970	100.0	100.0	0	64.0	34	98				
Surr: 2-Fluorobiphenyl	67.890	100.0	100.0	0	67.9	48	120				
Surr: 2-Fluorophenol	56.870	100.0	100.0	0	56.9	20	120				
Surr: 4-Terphenyl-d14	91.740	100.0	100.0	0	91.7	51	135				
Surr: Nitrobenzene-d5	68.100	100.0	100.0	0	68.1	41	120				
Surr: Phenol-d5	49.220	100.0	100.0	0	49.2	20	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Analyte	Sample ID: N006772-001DMSD SampType: MSD			TestCode: 8270_W_PGE Units: µg/L			Prep Date: 11/8/2011			RunNo: 82083		
	Client ID: ZZZZZZ	Batch ID: 38268	TestNo: EPA 8270C	EPA 3510C	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit
1,2-Diphenylhydrazine	67.380	10	100.0	0	67.4	60	117	80.84	18.2	20		
2,4,6-Trichlorophenol	56.670	10	100.0	0	56.7	49	126	69.71	20.6	20	R	
2,4-Dichlorophenol	50.250	10	100.0	0	50.3	48	120	60.87	19.1	20		
2,4-Dimethylphenol	50.360	10	100.0	0	50.4	28	120	60.14	17.7	20		
2,4-Dinitrophenol	59.030	50	100.0	0	59.0	25	130	72.39	20.3	20	R	
2,4-Dinitrotoluene	81.120	10	100.0	0	81.1	51	120	100.9	21.7	20	R	
2,6-Dinitrotoluene	77.590	10	100.0	0	77.6	49	120	97.32	22.6	20	R	
2-Chloronaphthalene	66.250	10	100.0	0	66.2	49	120	78.08	16.4	20		
2-Chlorophenol	45.750	10	100.0	0	45.8	37	120	56.57	21.1	20	R	
2-Nitrophenol	50.420	10	100.0	0	50.4	39	123	61.05	19.1	20		
3,3'-Dichlorobenzidine	119.840	20	200.0	0	59.9	20	120	144.3	18.5	20		
4,6-Dinitro-2-methylphenol	63.670	50	100.0	0	63.7	40	130	90.64	35.0	20	R	
4-Bromophenyl-phenyl/ether	71.650	10	100.0	0	71.6	52	120	91.26	24.1	20	R	
4-Chloro-3-methylphenol	59.670	50	100.0	0	59.7	47	120	73.15	20.3	20	R	
4-Chlorophenyl-phenyl/ether	66.560	10	100.0	0	66.6	50	120	82.35	21.2	20	R	
4-Nitrophenol	45.860	50	100.0	0	45.9	20	120	55.45	0	20	J	
Acenaphthene	62.180	10	100.0	0	62.2	47	120	74.57	18.1	20		
Acenaphthylene	62.330	10	100.0	0	62.3	50	120	73.98	17.1	20		
Anthracene	66.520	10	100.0	0	66.5	54	120	81.46	20.2	20	R	
Benzidine (M)	145.210	50	200.0	0	72.6	10	162	169.0	15.1	20		
Benz(a)anthracene	72.820	10	100.0	0	72.8	56	100	89.65	20.7	20	R	
Benz(o)a)pyrene	76.460	10	100.0	0	76.5	53	120	96.89	23.6	20	R	
Benz(o)b)fluoranthene	76.780	10	100.0	0	76.8	45	124	96.99	23.3	20	R	
Benz(o,g,h,i)perylene	74.670	10	100.0	0	74.7	38	123	96.29	25.3	20	R	
Benz(o,k)fluoranthene	78.720	10	100.0	0	78.7	45	124	100.4	24.2	20	R	
Bis(2-chloroethoxy)methane	59.670	10	100.0	0	59.7	46	120	71.44	18.0	20		
Bis(2-chloroethyl)ether	57.350	10	100.0	0	57.4	37	120	66.28	14.4	20		
Bis(2-chloroisopropyl)ether	58.580	10	100.0	0	58.6	26	131	69.87	17.6	20		
Bis(2-ethylhexyl)phthalate	80.220	10	100.0	0	80.2	42	126	98.84	20.8	20	R	
Butylbenzylphthalate	81.350	10	100.0	0	81.4	46	120	101.0	21.6	20	R	

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N006772  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_W\_PGE

Analyte	Samp Type: MSD			TestCode: 8270_W_PGE			Units: µg/L			Prep Date: 11/8/2011			RunNo: 82083		
	Sample ID: N006772-001DMSD	Batch ID: 38268	TestNo: EPA 8270C	EPA 3510C	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	SeqNo: 1323031	
Chrysene	72.650	10	100.0	0	72.6	55	120	90.00	21.3	20	R				
Di-n-butylphthalate	79.010	10	100.0	0	79.0	54	120	95.35	18.7	20					
Di-n-octylphthalate	85.260	10	100.0	0	85.3	37	137	105.8	21.5	20	R				
Dibenz(a,h)anthracene	77.590	10	100.0	0	77.6	42	127	100.6	25.8	20	R				
Diethylphthalate	77.920	10	100.0	0	77.9	41	120	94.87	19.6	20					
Dimethylphthalate	73.560	10	100.0	0	73.6	25	127	90.70	20.9	20	R				
Fluoranthene	72.690	10	100.0	0	72.7	54	120	88.74	19.9	20					
Fluorene	66.450	10	100.0	0	66.4	50	120	80.45	19.1	20					
Hexachlorobenzene	76.510	10	100.0	0	76.5	52	120	99.54	26.2	20	R				
Hexachlorocyclopentadiene	55.950	10	100.0	0	56.0	51	108	71.83	24.9	20	R				
Hexachloroethane	52.040	10	100.0	0	52.0	28	120	66.90	25.0	20	R				
Indeno(1,2,3-cd)pyrene	77.790	10	100.0	0	77.8	43	125	100.0	25.0	20	R				
Isophorone	75.380	10	100.0	0	75.4	50	120	88.20	15.7	20					
N-Nitrosodi-n-propylamine	60.060	10	100.0	0	60.1	34	128	71.25	17.0	20					
N-Nitrosodimethylamine	42.800	50	100.0	0	42.8	35	98	53.17	0	20	J				
N-Nitrosodiphenylamine	71.790	10	100.0	0	71.8	48	120	89.88	22.4	20	R				
Nitrobenzene	61.140	10	100.0	0	61.1	44	120	73.29	18.1	20					
Pentachlorophenol	61.340	50	100.0	0	61.3	38	120	78.13	24.1	20	R				
Phenanthrene	70.300	10	100.0	0	70.3	51	120	86.90	21.1	20	R				
Phenol	38.460	10	100.0	0	38.5	20	120	45.64	17.1	20					
Pyrene	71.540	10	100.0	0	71.5	49	128	88.15	20.8	20	R				
Surr: 1,2-Dichlorobenzene-d4	46.530	100.0	46.5	27	100				0						
Surr: 2,4,6-Tribromophenol	68.090	100.0	68.1	42	124				0						
Surr: 2-Chlorophenol-d4	51.590	100.0	51.6	34	98				0						
Surr: 2-Fluorobiphenyl	57.640	100.0	57.6	48	120				0						
Surr: 2-Fluorophenol	46.310	100.0	46.3	20	120				0						
Surr: 4-Terphenyl-d14	73.340	100.0	73.3	51	135				0						
Surr: Nitrobenzene-d5	55.380	100.0	55.4	41	120				0						
Surr: Phenol-d5	41.700	100.0	41.7	20	120				0						

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
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Advanced Technology Laboratories

3151 W. Post Road

Las Vegas, NV 89118

Tel: 202 307 3950 Email: Z002 202 307

tel. / 02-300/2833 Fax. / 02-300/2831

CHAIN OF CUSTODY RECORD

DATE: 11/11/11 PAGE: 2 OF 5

Revised: 07/29/2011

# Advanced Technology Laboratories, Inc.

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

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

Cooler Received/Opened On: 11/8/2011 Workorder: N006772

Rep sample Temp (Deg C): 4.4,5,6 IR Gun ID: 2

Temp Blank:  Yes  No

Carrier name: OnTrac

Last 4 digits of Tracking No.: 9151,9142 Packing Material Used: Paper

Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

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

Checklist Completed B

NS

N/A

Reviewed By:

Atg 11/10/11

**Full Priority Pollutants List  
for Quarterly Chain of Custody  
SFPP, L.P.  
Norwalk, California**

Analyte	Analytical Method	Units	MDL	RL	ML <sup>1</sup>
2,3,7,8-TCDD	8290	µg/L		50	NE
Arsenic	200.8	µg/L	0.0025	0.10	2
Lead	200.8	µg/L	0.021	0.5	0.5
Aroclor-1016	8082	µg/L	0.07	0.50	0.5
Aroclor-1221	8082	µg/L	0.23	1.0	0.5
Aroclor-1232	8082	µg/L	0.12	0.50	0.5
Aroclor-1242	8082	µg/L	0.13	0.50	0.5
Aroclor-1248	8082	µg/L	0.07	0.50	0.5
Aroclor-1254	8082	µg/L	0.07	0.50	0.5
Aroclor-1260	8082	µg/L	0.05	0.50	0.5
Cadmium	200.8	µg/L	0.02	0.25	0.25
Mercury	245.1, 7470A	µg/L	0.023	0.05	0.2
Antimony	200.8	µg/L	0.019	0.50	0.50
Beryllium	200.8	µg/L	0.009	0.50	0.50
Total Chromium	200.8	µg/L	0.008	0.50	0.50
Chromium (III) (Total Cr - Cr VI)	NA	µg/L	NA	NA	NA
Copper	200.8	µg/L	0.337	0.5	0.50
Nickel	200.8	µg/L	0.086	1.0	1
Selenium	200.8	µg/L	0.025	0.5	2
Silver	200.8	µg/L	0.005	0.25	0.25
Thallium	200.8	µg/L	0.043	0.5	1
Zinc	200.8	µg/L	0.162	10	1
Chromium (VI)	7199	µg/L	0.028	0.2	0.50
4,4'-DDD	8081 A	µg/L	0.014	0.050	0.05
4,4'-DDE	8081 A	µg/L	0.018	0.050	0.05
4,4'-DDT	8081 A	µg/L	0.019	0.050	0.01
Aldrin	8081 A	µg/L	0.01	0.025	0.005
Alpha Endosulfan	8081 A	µg/L	0.0100	0.025	0.02
Alpha-BHC	8081 A	µg/L	0.008	0.025	0.01
Beta Endosulfan	8081 A	µg/L	0.018	0.025	0.01
Beta-BHC	8081 A	µg/L	0.012	0.025	0.005
Chlordane	8081 A	µg/L	0.05	0.25	0.1
Delta-BHC	8081 A	µg/L	0.011	0.025	0.005
Dieldrin	8081 A	µg/L	0.014	0.050	0.01
Endosulfan Sulfate	8081 A	µg/L	0.015	0.050	0.05
Endrin	8081 A	µg/L	0.019	0.050	0.01
Endrin Aldehyde	8081 A	µg/L	0.015	0.050	0.01
Gamma-BHC	8081 A	µg/L	0.013	0.025	0.02
Heptachlor	8081 A	µg/L	0.011	0.025	0.01
Heptachlor Epoxide	8081 A	µg/L	0.015	0.025	0.01
Toxaphene	8081 A	µg/L	0.33	2.5	0.5
1,1,1-Trichloroethane	8260B	µg/L	0.068	1.0	2
1,1,2,2-Tetrachloroethane	8260B	µg/L	0.054	1.0	1
1,1,2-Trichloroethane	8260B	µg/L	0.083	1.0	2
1,1-Dichloroethane	8260B	µg/L	0.099	0.50	1
1,1-Dichloroethene	8260B	µg/L	0.094	1.00	2
1,2,4-Trichlorobenzene	8260B	µg/L	0.070	1.0	5
1,2-Dichlorobenzene	8260B	µg/L	0.085	1.0	2
1,2-Dichloroethane	8260B	µg/L	0.166	0.50	2

**Full Priority Pollutants List  
for Quarterly Chain of Custody**  
SFPP, L.P.  
Norwalk, California

Analyte	Analytical Method	Units	MDL	RL	ML <sup>1</sup>
1,2-Dichloropropane	8260B	µg/L	0.085	1.0	1
1,3-Dichlorobenzene	8260B	µg/L	0.090	1.0	1
1,4-Dichlorobenzene	8260B	µg/L	0.092	1.0	1
2-Chloroethyl Vinyl Ether	8260B	µg/L	0.144	1.0	1
Acrolein	8260B	µg/L	4.297	20	5
Acrylonitrile	8260B	µg/L	0.61	20	2
Benzene	8260B	µg/L	0.075	1.0	2
Bromodichloromethane	8260B	µg/L	0.063	1.0	2
Bromoform	8260B	µg/L	0.086	1.0	2
Bromomethane	8260B	µg/L	0.131	1	2
c-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	2
Carbon Tetrachloride	8260B	µg/L	0.10	1.0	2
Chlorobenzene	8260B	µg/L	0.092	1.0	2
Chloroethane	8260B	µg/L	0.141	1.0	2
Chloroform	8260B	µg/L	0.058	1.0	2
Chloromethane	8260B	µg/L	0.058	1.0	2
Dibromochloromethane	8260B	µg/L	0.061	1.0	2
Ethylbenzene	8260B	µg/L	0.1	1	2
Hexachloro-1,3-Butadiene	8260B	µg/L	0.2	1	1
Hexachlorobenzene	8270C	µg/L	3.9	10	1
Hexachloroethane	8270C	µg/L	4.73	10	1
Methylene Chloride	8260B	µg/L	0.11	2.0	2
Naphthalene	8260B	µg/L	0.056	1	1
t-1,2-Dichloroethene	8260B	µg/L	0.094	1.0	1
t-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	2
Tetrachloroethene	8260B	µg/L	0.13	1.0	2
Toluene	8260B	µg/L	0.118	2.0	2
Trichloroethene	8260B	µg/L	0.060	1.0	2
Vinyl Chloride	8260B	µg/L	0.117	1.0	2
1,2-Diphenylhydrazine	8270 C	µg/L	3.64	10	1
2,4,6-Trichlorophenol	8270 C	µg/L	4.48	10	10
2,4-Dichlorophenol	8270 C	µg/L	4.28	10	5
2,4-Dimethylphenol	8270 C	µg/L	3.63	10	2
2,4-Dinitrophenol	8270 C	µg/L	3.33	10	5
2,4-Dinitrotoluene	8270 C	µg/L	3.8	10	5
2,6-Dinitrotoluene	8270 C	µg/L	4.0	10	5
2-Chloronaphthalene	8270 C	µg/L	4.0	10	10
2-Chlorophenol	8270 C	µg/L	3.7	10	5
2-Nitrophenol	8270 C	µg/L	4.72	10	10
3,3'-Dichlorobenzidine	8270 C	µg/L	3.59	20	5
4,6-Dinitro-2-Methylphenol	8270 C	µg/L	2.87	50	5
4-Bromophenyl-Phenyl Ether	8270 C	µg/L	3.93	10	5
4-Chloro-3-Methylphenol	8270 C	µg/L	3.45	50	1
4-Chlorophenyl-Phenyl Ether	8270 C	µg/L	3.93	10	5
4-Nitrophenol	8270 C	µg/L	1.54	50	10
Acenaphthene	8270 C	µg/L	4.22	10	1
Acenaphthylene	8270 C	µg/L	4.87	10	10
Anthracene	8270 C	µg/L	3.73	10	10
Benzidine	8270 C	µg/L	2.33	50	5

**Full Priority Pollutants List  
for Quarterly Chain of Custody**  
SFPP, L.P.  
Norwalk, California

Analyte	Analytical Method	Units	MDL	RL	ML <sup>1</sup>
Benzo (a) Anthracene	8270 C	µg/L	5.18	10	5
Benzo (a) Pyrene	8270 C	µg/L	5.5	10	10
Benzo (b) Fluoranthene	8270 C	µg/L	5.65	10	10
Benzo (g,h,i) Perylene	8270 C	µg/L	5.83	10	5
Benzo (k) Fluoranthene	8270 C	µg/L	5.39	10	10
Bis(2-Chloroethoxy) Methane	8270 C	µg/L	4.6	10	5
Bis(2-Chloroethyl) Ether	8270 C	µg/L	5.5	10	1
Bis(2-Chloroisopropyl) Ether	8270 C	µg/L	4.32	10	2
Bis(2-Ethylhexyl) Phthalate	8270 C	µg/L	2.7	10	5
Butyl Benzyl Phthalate	8270 C	µg/L	3.4	10	10
Chrysene	8270 C	µg/L	2.32	10	10
Dibenz (a,h) Anthracene	8270 C	µg/L	5.65	10	10
Diethyl Phthalate	8270 C	µg/L	3.27	10	2
Dimethyl Phthalate	8270 C	µg/L	3.68	10	2
Di-n-Butyl Phthalate	8270 C	µg/L	3.0	10	10
Di-n-Octyl Phthalate	8270 C	µg/L	3.0	10	10
Fluoranthene	8270 C	µg/L	3.14	10	1
Fluorene	8270 C	µg/L	3.62	10	10
Hexachlorocyclopentadiene	8270 C	µg/L	5.03	20	5
Indeno (1,2,3-c,d) Pyrene	8270 C	µg/L	5.62	10	10
Isophorone	8270 C	µg/L	4.38	10	1
Nitrobenzene	8270 C	µg/L	4.65	10	1
N-Nitrosodimethylamine	8270 C	µg/L	3.07	50	5
N-Nitroso-di-n-propylamine	8270 C	µg/L	5.09	10	5
N-Nitrosodiphenylamine	8270 C	µg/L	4.0	10	1
Pentachlorophenol	8270 C	µg/L	3.0	50	5
Phenanthrene	8270 C	µg/L	2.95	50	5
Phenol	8270 C	µg/L	1.54	10	1
Pyrene	8270 C	µg/L	3.2	10	10
Cyanide (Total)	SM 4500 CN-E, EPA 9014	mg/L	0.0049	0.010	NE
Asbestos	EPA/600/R-93/116(PCM)	MFL			NE

Notes

1. State Water Resources Control Board Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

Abbreviations

- DNQ = detected, but not quantified. Result is greater than or equal to the laboratory MDL but less than the ML (or RL if no ML is listed)
- MDL = laboratory method detection limit
- ML = minimum level
- mg/L = milligrams per liter
- µg/L = micrograms per liter
- ND = not-detected above the MDL listed
- NE = not established
- MFL = millions of fibers per liter
- pg/L = picograms per liter.
- RL = laboratory reporting limit







## Advanced Technology Laboratories

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

[www.atlglobal.com](http://www.atlglobal.com)

TEL: 7023072659

FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

QC Level: RTNE

Subcontractor:  
EMS Laboratories  
117 W. Bellevue Dr.  
Pasadena, CA 91105

TEL: (626) 568-4065  
FAX:  
Acct #:

08-Nov-11

Requested Tests					
Sample ID	Matrix	Date Collected	Bottle Type	Asb TEM	
N006772-001F / EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	16OZP	1	

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

Please use PO#: N006772

Please analyze Asbestos TEM by EPA 100.2

By [Signature]

Please fax results by: Normal TAT

Relinquished by: <u>John Lubin</u>	Date/Time: <u>11/8/11 2:12</u>	Received by: <u>John Lubin</u>
Relinquished by: _____	Date/Time: _____	Received by: _____
Relinquished by: _____	Date/Time: _____	Received by: _____
Relinquished by: _____	Date/Time: _____	Received by: _____



## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659

FAX: 7023072691

### Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659

FAX: 7023072691

QC Level: RTNE

#### Subcontractor:

APPL, Inc.  
908 N. Temperance Ave.  
Clovis, CA 93611

Field Sampler: Not Re doch

08-Nov-11

TEL:

FAX:

(209) 275-4422  
Acct #:

Requested Tests					
Sample ID	Matrix	Date Collected	Bottle Type	EPA 8290	
N006772-001G / EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	32OZA	1	

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

Please use PO#: N006772

Please fax results by: Normal TAT

Please analyze for 17 Congeners & TEQ by EPA 8290

Relinquished by: <u>Not Re doch</u>	Date/Time <u>11/8/11 2pm</u>
Received by: <u>Not Re doch</u>	Date/Time <u>11/8/11 2pm</u>
Relinquished by: <u>Not Re doch</u>	Date/Time <u>11/8/11 2pm</u>
Received by: <u>Not Re doch</u>	Date/Time <u>11/8/11 2pm</u>

## Nancy Sibucao

---

**From:** Vladimir.Carino@CH2M.com  
**Sent:** Tuesday, November 08, 2011 2:09 PM  
**To:** reports@atl-labs.com; Daniel.Jablonski@CH2M.com  
**Cc:** marlon@atl-labs.com  
**Subject:** RE: SFPP - Norwalk Site Priority Pollutant

This is page 2 of 5 for this COC. The 48 hour TAT for MTBE, TBA, Selenium, and Mercury are indicated on Page 1 of 5 of this COC.

Vladimir

---

**From:** Advanced Technology Labs, Inc. [mailto:[reports@atl-labs.com](mailto:reports@atl-labs.com)]  
**Sent:** Tuesday, November 08, 2011 2:07 PM  
**To:** Carino, Vladimir/SCO; Jablonski, Daniel/LAC  
**Cc:** Marlon Cartin  
**Subject:** SFPP - Norwalk Site Priority Pollutant

Hi Vlad and Dan,

Please confirm TAT on the attached COC since both 48 hr and 5 day TAT are marked.

Thanks,

Glen Gesmundo

**Advanced Technology Laboratories, Inc.**

[www.atl-labs.com](http://www.atl-labs.com)  
Tel: (702) 307-3248 ext. 406  
Fax: (702) 307-2691

Advanced Technology Laboratories, Inc. is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Nevada and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates.  
Advanced Technology Labs - Your Partner for Quality Environmental Testing

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21 November 2011



Marlon Cartin  
Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas, NV 89118  
Tel: (702) 307-2659  
Fax:(702) 307-2691

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003

RE: ATL Work Order Number: 1100081

Client Reference : [none]

Enclosed are the results for sample(s) received on November, 7 2011 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez".

Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N006772-001E / EFF-11-07	1100081-01	Waste Water	11/07/11 12:45	11/07/11 16:21
N006772-001I / EFF-11-07	1100081-02	Waste Water	11/07/11 12:45	11/07/11 16:21



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

**Client Sample ID N006772-001E / EFF-11-07**

**Lab ID: 1100081-01**

**Cyanide, Total by SM4500-CN E**

**Analyst: KK**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Cyanide, Total	ND	0.01	0.006	1	B1K0231	11/11/2011	11/15/11 09:34	



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

**Client Sample ID N006772-001I / EFF-11-07**

**Lab ID: 1100081-02**

**Surfactant, MBAS by SM 5540C**

**Analyst: AG**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surfactant, MBAS	0.06	0.05	NA	1	B1K0087	11/08/2011	11/09/11 08:01	



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

## QUALITY CONTROL SECTION

### Cyanide, Total by SM4500-CN E - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	------------	--------------	-------

#### Batch B1K0231 - Prep\_WC\_3\_W

##### Blank (B1K0231-BLK1)

Prepared: 11/11/2011 Analyzed: 11/15/2011

Cyanide, Total

ND 0.01

NR

##### LCS (B1K0231-BS1)

Prepared: 11/11/2011 Analyzed: 11/15/2011

Cyanide, Total

0.4 0.01 0.400

101 80 - 120

##### Matrix Spike (B1K0231-MS1)

Source: 1100081-01 Prepared: 11/11/2011 Analyzed: 11/15/2011

Cyanide, Total

0.4 0.01 0.400

ND 100 80 - 120

##### Matrix Spike Dup (B1K0231-MSD1)

Source: 1100081-01 Prepared: 11/11/2011 Analyzed: 11/15/2011

Cyanide, Total

0.4 0.01 0.400

ND 102 80 - 120 1 20



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

### **Surfactant, MBAS by SM 5540C - Quality Control**

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	------------	--------------	-------

#### **Batch B1K0087 - Prep\_WC\_3\_W**

##### **Blank (B1K0087-BLK1)**

Prepared: 11/8/2011 Analyzed: 11/9/2011

Surfactant, MBAS ND 0.05 NR

##### **LCS (B1K0087-BS1)**

Prepared: 11/8/2011 Analyzed: 11/9/2011

Surfactant, MBAS 0.5 0.05 0.500 96 80 - 120

##### **Matrix Spike (B1K0087-MS1)**

Source: 1100081-02 Prepared: 11/8/2011 Analyzed: 11/9/2011

Surfactant, MBAS 0.6 0.05 0.500 0.06 105 80 - 120

##### **Matrix Spike Dup (B1K0087-MSD1)**

Source: 1100081-02 Prepared: 11/8/2011 Analyzed: 11/9/2011

Surfactant, MBAS 0.6 0.05 0.500 0.06 103 80 - 120 1 20



Advanced Technology Laboratory-Las Vegas

3151 W Post Rd.

Las Vegas , NV 89118

Project Number: -

Reported:

Report To: Marlon Cartin

11/21/2011

### Notes and Definitions

ND Analyte not detected at or above reporting limit

PQL Practical Quantitation Limit

MDL Method Detection Limit

NR Not Reported

RPD Relative Percent Difference

CA1 CA-NELAP (CDPH)

CA2 CA-ELAP (CDPH)

OR1 OR-NELAP (OSPHL)

TX1 TX-NELAP (TCEQ)



Advanced Technology Laboratories  
3151-3153 W Post Rd., Las Vegas, NV 89118  
[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072699 FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

QC Level: RTNE

Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

TEL: (562) 989-4045  
FAX: (562) 989-4045  
Acct #:

Field Sampler: JAMES D

Date: 07-Nov-11

Requested Tests					
Sample ID	Matrix	Date Collected	Bottle Type	SM 5540 C	SM4500 CNE
N006772-001E / EFF-11-07	Wastewater	11/17/2011 12:45:00 PM	16OZP	1	
N006772-001I / EFF-11-07	Wastewater	11/17/2011 12:45:00 PM	8OZP	1	

11/17/11 - 1  
J

General Comments: Please email sample receipt acknowledgement to the PM.  
Please use PO#: N006772 Please fax results by: NORMAL TAT

Date/Time	11/17/11	Received by: C. H. [Signature]
Date/Time	11/17/11	Received by: [Signature]
Date/Time	11/17/11	Received by: [Signature]

DATE: August 17, 2011  
CUSTOMER: Advanced Technology Laboratories  
3151-3153 W Post Rd  
Las Vegas, NV 89118  
ATTENTION: Marlon Cartin  
REPORT NO: 147966  
REFERENCE: PO# N006772  
DATE RECEIVED: November 9, 2011 at 1155  
DATE ANALYZED: November 16, 2011  
SUBJECT: ANALYSIS OF WATER SAMPLES FOR ASBESTOS BY TEM  
ACCREDITATION: California Dept. of Health Services ELAP 1119

The sample was prepared and analyzed according to EPA 600 94 134, 100.1.

The date and times of collection and filtration are as follows:

<u>Sample</u>	<u>Date/Time of Collection</u>	<u>Date/Time of Filtration</u>
N006772-001F/EFF-11-7	11/07/11 at 1245	11/09/11 at 1235

The results of the analysis and the detection limit(s) are summarized on the following page(s), accompanied by the chain of custody.

Respectfully submitted,  
EMS Laboratories, Inc.



B.M. Kolk  
Laboratory Director  
BMK/am

*Note: The report shall not be reproduced, except in full without the written approval of EMS Laboratories, Inc.*

*Note: The results of the analysis are based upon the sample submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples. All the analytical quality control data meet the requirement of the procedure unless otherwise indicated. Any deviation or exclusion from the test method is noted in this cover letter. Unless otherwise noted in this cover letter the samples were received properly packaged, clearly identified and intact.*



ANALYSIS OF WATER BY TEM ( EPA-600/4-83-043 )    EPA 100.1

LAB NO: 147966  
CLIENT: Advanced Technology Laboratories  
DATE: 11/16/2011

## INDIVIDUAL ANALYTICAL RESULTS

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

BM24K  
Authorized Signature

---

**Authorized Signature**

NA Not Applicable

ND None Detected

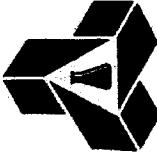
#### **PC Polycarbonate Filter**

### PG Polycarbonate GO Grid Openings

MEI Million Fibers per Liter

M E M I O  
Fib Fibers

TEM-6A (2011 Rev)



## Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659 FAX: 7023072691

147966

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

### Subcontractor:

EMS Laboratories  
117 W. Bellevue Dr.  
Pasadena, CA 91105

TEL: (626) 568-4065  
FAX:  
Acct #:

QC Level: RTNE

08-Nov-11

Requested Tests			
Sample ID	Matrix	Date Collected	Bottle Type
Asb TEM			
NO06772-001F / EFF-11-7	Wastewater	11/7/2011 12:45:00 PM	16OZP
			1

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

Please use PO#: N006772

Please analyze Asbestos TEM by EPA 100.2  
R & M

Called Client. He can't do it  
Low. I no longer do it ✓

Date/Time	11/8/11 2pm	Received by:	John D. [Signature]
Date/Time	11/9/11 10am	Received by:	[Signature]

## EPA 8290 - Dioxins and Furans

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Marlon Cartin

Project: SFPP Norwalk

ARF: 66239

**Sample ID: N006772-001G / EFF-11-7**

**APPL ID: AY50387**

Sample Collection Date: 11/07/11

QCG: \$8290W-111110A-161497

Method	Analyte	Result	PQL	EDL/EMPC	Units	Ext Date	Analysis Date
EPA 8290	1,2,3,4,6,7,8-HPCDD	14PC U	125.0	14PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,6,7,8-HPCDF	13PC U	125.0	13PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,7,8,9-HPCDF	11PC U	125.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,7,8-HXCDD	6.1PC U	125.0	6.1PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,7,8-HXCDF	6.2 J	125.0	6.2PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,6,7,8-HXCDD	9.5PC U	125.0	9.5PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,6,7,8-HXCDF	8.6 J	125.0	8.6PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8,9-HXCDD	11PC U	125.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8,9-HXCDF	11 J	125.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8-PECDD	8.2 J	125.0	8.2PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8-PECDF	6.6PC U	125.0	6.6PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,4,6,7,8-HXCDF	9.5 J	125.0	9.5PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,4,7,8-PECDF	6.1PC U	125.0	6.1PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,7,8-TCDD	3.3PC U	50.0	3.3PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,7,8-TCDF	3.4PC U	50.0	3.4PC	pg/L	11/10/11	11/18/11
EPA 8290	OCDD	23 J	250.0	23PC	pg/L	11/10/11	11/18/11
EPA 8290	OCDF	11PC U	250.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	TEQ	12	NA		pg/L	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S)	90.2	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S)	74.9	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)	73.3	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)	73.2	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDD (S)	114	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDF (S)	94.8	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDD (S)	89.5	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDF (S)	83.5	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-OCDD (S)	69.6	40-135		%	11/10/11	11/18/11

J = Estimated value.

Quant Method: 8290_111114
Run #: 111114_HR_79
Instrument: Magneto
Sequence: 111114
Dilution Factor: 1
Initials: RP

Printed: 12/05/11 4:04:27 PM  
Form 1 - APPL Standard GC - No MC

## EPA 8290 - Dioxins and Furans

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Marlon Cartin  
Project: SFPP Norwalk

ARF: 66239

**Sample ID: N006772-001G / EFF-11-7**

**APPL ID: AY50387**

Sample Collection Date: 11/07/11

QCG: \$8290W-111110A-161497

Method	Analyte	Result	PQL	EDL/EMPC	Units	Ext Date	Analysis Date
EPA 8290	1,2,3,4,6,7,8-HPCDD	Not detected	125.0	14PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,6,7,8-HPCDF	Not detected	125.0	13PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,7,8,9-HPCDF	Not detected	125.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,7,8-HXCDD	Not detected	125.0	6.1PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,4,7,8-HXCDF	6.2 J	125.0	6.2PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,6,7,8-HXCDD	Not detected	125.0	9.5PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,6,7,8-HXCDF	8.6 J	125.0	8.6PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8,9-HXCDD	Not detected	125.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8,9-HXCDF	11 J	125.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8-PECDD	8.2 J	125.0	8.2PC	pg/L	11/10/11	11/18/11
EPA 8290	1,2,3,7,8-PECDF	Not detected	125.0	6.6PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,4,6,7,8-HXCDF	9.5 J	125.0	9.5PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,4,7,8-PECDF	Not detected	125.0	6.1PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,7,8-TCDD	Not detected	50.0	3.3PC	pg/L	11/10/11	11/18/11
EPA 8290	2,3,7,8-TCDF	Not detected	50.0	3.4PC	pg/L	11/10/11	11/18/11
EPA 8290	OCDD	23 J	250.0	23PC	pg/L	11/10/11	11/18/11
EPA 8290	OCDF	Not detected	250.0	11PC	pg/L	11/10/11	11/18/11
EPA 8290	TEQ	8.9	NA		pg/L	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S)	90.2	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S)	74.9	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)	73.3	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)	73.2	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDD (S)	114	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDF (S)	94.8	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDD (S)	89.5	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDF (S)	83.5	40-135		%	11/10/11	11/18/11
EPA 8290	SURROGATE: 13C-OCDD (S)	69.6	40-135		%	11/10/11	11/18/11

**AMENDED PAGE**  
PM 2/13/12

J = Estimated value.

Quant Method: 8290_111114
Run #: 111114_HR_79
Instrument: Magneto
Sequence: 111114
Dilution Factor: 1
Initials: RP

3. For the positively identified analytes the concentration was reported in the "Results" column, and EMPC was reported in the EDL / EMPC column. The EMPC is equal to the detected concentration.

The TEQ was calculated using the TEF and BEF values provided by the client as listed in NPDES Permit No. CA0063509, Order No. R4-2011-0095 for SFPP, L.P., Norwalk Pump Station.

In accordance with the client's instructions, a sample exhibiting J-value responses below the PQL was re-injected for confirmation purposes. The higher of the two results was reported on the Form 1. For J-value responses in which the confirmation result was "not detected", the analyte was reported as not detected with an EMPC from the J-value detection, according to the client's instructions.

## **Quality Control/Accuracy**

### **Calibrations:**

Calibrations and Resolution Checks were performed according to the method. All calibration acceptance criteria were met.

### **Blanks:**

The method blank contained no target analyte at or above one-half the PQL.

### **Spikes:**

A Laboratory Control Spike (LCS) was used for quality control. The LCS recoveries met acceptance criteria.

No sample was designated by the client for MS/MSD analysis.

### **Surrogate Recoveries (C13 Internal Standards):**

C13 Internal Standards were added to the extracts in accordance with the method and reported on the Form 1s as surrogate recoveries. All recoveries met acceptance criteria.

### **Summary:**

All data were acceptable. No analytical exception is noted.

## **CERTIFICATION**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.



2-14-12

Sharon Dehmlow, Laboratory Director / Date

December 30, 2011

Daniel Jablonski  
CH2M HILL  
155 Grand Avenue, Suite 1000  
Oakland, CA 94612  
TEL: (213)228-8271  
FAX: (510) 622-9129

CA-ELAP No.:2676  
NV Cert. No.:NV-009222007A  
Workorder No.: N007013

RE: SFPP - Norwalk Site

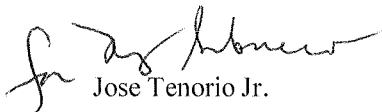
Attention: Daniel Jablonski

Enclosed are the results for sample(s) received on December 13, 2011 by Advanced Technology Laboratories, Inc. . 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,



Jose Tenorio Jr.  
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.



Advanced Technology  
Laboratories, Inc.

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

# Advanced Technology Laboratories, Inc.

Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N007013

## Work Order Sample Summary

Contract No:

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N007013-001A	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001B	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001C	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001D	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001E	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001F	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001G	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001H	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001I	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001J	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011
N007013-001K	EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	12/13/2011	12/13/2011

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N007013

**CASE NARRATIVE****SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

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

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

Samples were analyzed within method holding time.

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

Field Temperature was 64 degree F .

Field pH =7.26

**Subcontracted Analyses:**

Phenols by EPA 420.1, Settleable Solids by SM 2540F, Sulfide by SM 4500-S-2D, and BOD by SM 5210B were subcontracted to Advanced Technology Laboratories-Signal Hill, CA .

**Analytical Comments for EPA 200.8:**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

**Analytical Comments for EPA 8260B:**

Matrix Spike (MS) is outside recovery criteria for Tert-Butanol possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007013  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007013-001

**Client Sample ID:** EFF-12132011  
**Collection Date:** 12/13/2011 10:00:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>TOTAL NON-FILTERABLE RESIDUE</b>							
<b>SM2540D</b>							
RunID: <b>WETCHEM_111215A</b>	QC Batch: <b>38604</b>			PrepDate:	<b>12/15/2011</b>		Analyst: <b>CEI</b>
Suspended Solids (Residue, Non-Filterable)	ND	10	10	mg/L	1		12/15/2011
<b>OIL &amp; GREASE</b>							
<b>EPA 1664 _HEM</b>							
RunID: <b>WETCHEM_111219B</b>	QC Batch: <b>38646</b>			PrepDate:	<b>12/19/2011</b>		Analyst: <b>QBM</b>
Oil & Grease	ND	1.0	4.5	mg/L	1		12/19/2011
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
<b>EPA 8260B</b>							
RunID: <b>MS1_111216A</b>	QC Batch: <b>D11VW185</b>			PrepDate:			Analyst: <b>QBM</b>
1,1-Dichloroethane	ND	0.099	0.50	µg/L	1		12/16/2011 01:57 PM
1,2-Dichloroethane	ND	0.17	0.50	µg/L	1		12/16/2011 01:57 PM
Benzene	ND	0.075	1.0	µg/L	1		12/16/2011 01:57 PM
Ethylbenzene	ND	0.051	1.0	µg/L	1		12/16/2011 01:57 PM
m,p-Xylene	ND	0.17	1.0	µg/L	1		12/16/2011 01:57 PM
MTBE	ND	0.089	1.0	µg/L	1		12/16/2011 01:57 PM
o-Xylene	ND	0.077	1.0	µg/L	1		12/16/2011 01:57 PM
Tert-Butanol	ND	1.2	5.0	µg/L	1		12/16/2011 01:57 PM
Toluene	ND	0.12	2.0	µg/L	1		12/16/2011 01:57 PM
Surr: 1,2-Dichloroethane-d4	82.0	0	72-119	%REC	1		12/16/2011 01:57 PM
Surr: 4-Bromofluorobenzene	103	0	76-119	%REC	1		12/16/2011 01:57 PM
Surr: Dibromofluoromethane	92.6	0	85-115	%REC	1		12/16/2011 01:57 PM
Surr: Toluene-d8	106	0	81-120	%REC	1		12/16/2011 01:57 PM
<b>TPH-FUEL PRODUCT BY GC/FID</b>							
<b>EPA 3510C</b>							
RunID: <b>GC3_111220A</b>	QC Batch: <b>38627</b>			PrepDate:	<b>12/16/2011</b>		Analyst: <b>PYW</b>
TPH-Diesel (C13-C22)	ND	13	51	ug/L	1		12/20/2011 09:28 PM
TPH-Oil (C23-C36)	11	9.8	51	J ug/L	1		12/20/2011 09:28 PM
Surr: Octacosane	93.9	0	26-152	%REC	1		12/20/2011 09:28 PM
Surr: p-Terphenyl	89.0	0	57-132	%REC	1		12/20/2011 09:28 PM
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>							
<b>EPA 8015B</b>							
RunID: <b>GC4_111219A</b>	QC Batch: <b>E11VW067</b>			PrepDate:			Analyst: <b>MCS</b>
TPH-Gasoline (C4-C12)	ND	6.0	100	µg/L	1		12/19/2011

**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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**  
**Print Date:** 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007013  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007013-001

**Client Sample ID:** EFF-12132011  
**Collection Date:** 12/13/2011 10:00:00 AM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>							
<b>EPA 8015B</b>							
RunID: <b>GC4_111219A</b>	QC Batch: <b>E11VW067</b>			PrepDate:			<b>Analyst: MCS</b>
Surr: Chlorobenzene - d5	114	0	74-138	%REC		1	12/19/2011
<b>ANIONS BY ION CHROMATOGRAPHY</b>							
<b>EPA 300.0</b>							
RunID: <b>IC2_111214A</b>	QC Batch: <b>R82720</b>			PrepDate:			<b>Analyst: QBM</b>
Nitrogen, Nitrite	ND	0.012	1.0	mg/L		2	12/15/2011 07:58 AM
<b>ANIONS BY ION CHROMATOGRAPHY</b>							
<b>EPA 300.0</b>							
RunID: <b>IC2_111214A</b>	QC Batch: <b>R82720</b>			PrepDate:			<b>Analyst: QBM</b>
Nitrate as N	0.98	0.012	0.50	mg/L		1	12/15/2011 07:12 AM
<b>HEXAVALENT CHROMIUM BY IC</b>							
<b>EPA 7199</b>							
RunID: <b>IC1_111214A</b>	QC Batch: <b>R82715</b>			PrepDate:			<b>Analyst: QBM</b>
Hexavalent Chromium	ND	0.014	0.20	µg/L		1	12/14/2011 09:38 AM
<b>MERCURY BY COLD VAPOR TECHNIQUE</b>							
<b>EPA 245.1</b>							
RunID: <b>AA1_111216A</b>	QC Batch: <b>38594</b>			PrepDate:	<b>12/14/2011</b>		<b>Analyst: CEI</b>
Mercury	ND	0.026	0.050	µg/L		1	12/16/2011
<b>ICPMS METALS</b>							
<b>EPA 200.8</b>							
RunID: <b>ICP7_111215A</b>	QC Batch: <b>38593</b>			PrepDate:	<b>12/14/2011</b>		<b>Analyst: CEI</b>
Copper	ND	0.010	0.50	µg/L		1	12/15/2011 11:54 AM
Lead	ND	0.021	0.50	µg/L		1	12/15/2011 11:54 AM
Selenium	0.080	0.018	0.50	J µg/L		1	12/15/2011 11:54 AM
Thallium	ND	0.043	0.50	µg/L		1	12/15/2011 11:54 AM
Zinc	4.0	0.16	10	J µg/L		1	12/15/2011 11:54 AM

**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



**Advanced Technology**  
**Laboratories, Inc.**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

**ANALYTICAL QC SUMMARY REPORT****TestCode: 160.2\_2540D\_W**

Sample ID: MB-38604	SampType: MBLK	TestCode: 160.2_2540D_ Units: mg/L			Prep Date: 12/15/2011			RunNo: 82713			
Client ID: PBW	Batch ID: 38604	TestNo: SM2540D			Analysis Date: 12/15/2011			SeqNo: 1342082			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	10									
Sample ID: LCS-38604	SampType: LCS	TestCode: 160.2_2540D_ Units: mg/L			Prep Date: 12/15/2011			RunNo: 82713			
Client ID: LCSW	Batch ID: 38604	TestNo: SM2540D			Analysis Date: 12/15/2011			SeqNo: 1342083			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	975.000	10	1000	0	97.5	80	120				
Sample ID: N007013-001E-DUP	SampType: DUP	TestCode: 160.2_2540D_ Units: mg/L			Prep Date: 12/15/2011			RunNo: 82713			
Client ID: ZZZZZZ	Batch ID: 38604	TestNo: SM2540D			Analysis Date: 12/15/2011			SeqNo: 1342085			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	10							0	0	5

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 1664\_HEM\_W

Sample ID: MB-38646	SampType: MBLK	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 12/19/2011			RunNo: 82705			
Client ID: PBW	Batch ID: 38646	TestNo: EPA 1664_H			Analysis Date: 12/19/2011			SeqNo: 1341924			
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-38646	SampType: LCS	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 12/19/2011			RunNo: 82705			
Client ID: LCSW	Batch ID: 38646	TestNo: EPA 1664_H			Analysis Date: 12/19/2011			SeqNo: 1341925			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	35.200	4.0	40.00	0	88.0	78	114				
Sample ID: N007013-001A-MS	SampType: MS	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 12/19/2011			RunNo: 82705			
Client ID: ZZZZZZ	Batch ID: 38646	TestNo: EPA 1664_H			Analysis Date: 12/19/2011			SeqNo: 1341933			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	37.802	4.4	43.96	0	86.0	78	114				
Sample ID: N007013-001A-MSD	SampType: MSD	TestCode: 1664_HEM_W Units: mg/L			Prep Date: 12/19/2011			RunNo: 82705			
Client ID: ZZZZZZ	Batch ID: 38646	TestNo: EPA 1664_H			Analysis Date: 12/19/2011			SeqNo: 1341934			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Oil & Grease	39.885	4.6	45.98	0	86.8	78	114	37.80	5.36	18	

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W\_SFPP

Sample ID: MB-38593	SampType: MBLK	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: PBW	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338153			
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									
Selenium	ND	0.50									
Thallium	ND	0.50									
Zinc	ND	10									
Sample ID: LCS-38593	SampType: LCS	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: LCSW	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338154			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	10.165	0.50	10.00	0	102	85	115				
Lead	10.010	0.50	10.00	0	100	85	115				
Selenium	10.278	0.50	10.00	0	103	85	115				
Thallium	9.894	0.50	10.00	0	98.9	85	115				
Zinc	104.875	10	100.0	0	105	85	115				
Sample ID: N007013-001H-MS	SampType: MS	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: ZZZZZZ	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338161			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	5.720	0.50	10.00	0	57.2	75	125				S
Lead	8.599	0.50	10.00	0	86.0	75	125				
Selenium	7.869	0.50	10.00	0.07969	77.9	75	125				
Thallium	8.961	0.50	10.00	0	89.6	75	125				
Zinc	78.261	10	100.0	3.998	74.3	75	125				S

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W\_SFPP

Sample ID: N007013-001H-MSD	SampType: MSD	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: ZZZZZZ	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338162			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	5.885	0.50	10.00	0	58.9	75	125	5.720	2.85	20	S
Lead	8.558	0.50	10.00	0	85.6	75	125	8.599	0.481	20	
Selenium	8.061	0.50	10.00	0.07969	79.8	75	125	7.869	2.41	20	
Thallium	8.970	0.50	10.00	0	89.7	75	125	8.961	0.0971	20	
Zinc	78.294	10	100.0	3.998	74.3	75	125	78.26	0.0425	20	S
Sample ID: N007012-001C-MS	SampType: MS	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: ZZZZZZ	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338163			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	15.467	0.50	10.00	9.016	64.5	75	125				S
Lead	10.621	0.50	10.00	2.532	80.9	75	125				
Selenium	8.993	0.50	10.00	1.089	79.0	75	125				
Thallium	8.636	0.50	10.00	0	86.4	75	125				
Zinc	105.291	10	100.0	30.93	74.4	75	125				S
Sample ID: N007012-001C-MSD	SampType: MSD	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: ZZZZZZ	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338164			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	15.423	0.50	10.00	9.016	64.1	75	125	15.47	0.284	20	S
Lead	10.667	0.50	10.00	2.532	81.4	75	125	10.62	0.438	20	
Selenium	8.940	0.50	10.00	1.089	78.5	75	125	8.993	0.600	20	
Thallium	8.724	0.50	10.00	0	87.2	75	125	8.636	1.01	20	
Zinc	105.598	10	100.0	30.93	74.7	75	125	105.3	0.291	20	S

**Qualifiers:**

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out

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

**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 245.1\_W\_LL

Sample ID: LCS-38594	SampType: LCS	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: LCSW	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338198						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.683	0.050	2.500	0	107	85	115				
Sample ID: MB-38594	SampType: MBLK	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: PBW	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338199						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.050									
Sample ID: N007012-001C-MS	SampType: MS	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: ZZZZZZ	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338201						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.689	0.050	2.500	0	108	75	125				
Sample ID: N007012-001C-MSD	SampType: MSD	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: ZZZZZZ	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338202						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.711	0.050	2.500	0	108	75	125	2.689	0.827	20	
Sample ID: N007013-001H-MS	SampType: MS	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: ZZZZZZ	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338204						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.544	0.050	2.500	0	102	75	125				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 245.1\_W\_LL

Sample ID: <b>N007013-001H-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>12/14/2011</b>	RunNo: <b>82568</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38594</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>12/16/2011</b>	SeqNo: <b>1338205</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Mercury	2.616	0.050	2.500	0	105
					LowLimit 75 HighLimit 125 RPD Ref Val 2.544 %RPD 2.82 RPDLimit 20 Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 300\_W\_NO2PGE

Sample ID: MB-R82720_NO2	SampType: MBLK	TestCode: 300_W_NO2P Units: mg/L				Prep Date:			RunNo: 82720		
Client ID: PBW	Batch ID: R82720	TestNo: EPA 300.0				Analysis Date: 12/15/2011			SeqNo: 1342252		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	ND	0.50									
Sample ID: LCS-R82720_NO2	SampType: LCS	TestCode: 300_W_NO2P Units: mg/L				Prep Date:			RunNo: 82720		
Client ID: LCSW	Batch ID: R82720	TestNo: EPA 300.0				Analysis Date: 12/15/2011			SeqNo: 1342253		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	2.497	0.50	2.500	0	99.9	90	110				
Sample ID: N007016-001CDUP	SampType: DUP	TestCode: 300_W_NO2P Units: mg/L				Prep Date:			RunNo: 82720		
Client ID: ZZZZZZ	Batch ID: R82720	TestNo: EPA 300.0				Analysis Date: 12/15/2011			SeqNo: 1342258		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	ND	50							0	0	20
Sample ID: N007016-001CMS	SampType: MS	TestCode: 300_W_NO2P Units: mg/L				Prep Date:			RunNo: 82720		
Client ID: ZZZZZZ	Batch ID: R82720	TestNo: EPA 300.0				Analysis Date: 12/15/2011			SeqNo: 1342259		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	292.500	50	250.0	0	117	80	120				
Sample ID: N007016-001CMSD	SampType: MSD	TestCode: 300_W_NO2P Units: mg/L				Prep Date:			RunNo: 82720		
Client ID: ZZZZZZ	Batch ID: R82720	TestNo: EPA 300.0				Analysis Date: 12/15/2011			SeqNo: 1342260		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrite	293.700	50	250.0	0	117	80	120	292.5	0.409	20	

**Qualifiers:**

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J Analyte detected below quantitation limits      ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits  
S Spike/Surrogate outside of limits due to matrix interference      DO Surrogate Diluted Out      Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 300W\_NO3PGE

Sample ID: MB-R82720_NO3	SampType: MBLK	TestCode: 300W_NO3P	Units: mg/L	Prep Date:	RunNo: 82720						
Client ID: PBW	Batch ID: R82720	TestNo: EPA 300.0		Analysis Date: 12/15/2011	SeqNo: 1342269						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	0.50									
Sample ID: LCS-R82720_NO3	SampType: LCS	TestCode: 300W_NO3P	Units: mg/L	Prep Date:	RunNo: 82720						
Client ID: LCSW	Batch ID: R82720	TestNo: EPA 300.0		Analysis Date: 12/15/2011	SeqNo: 1342270						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	2.512	0.50	2.500	0	100	90	110				
Sample ID: N007016-001CDUP	SampType: DUP	TestCode: 300W_NO3P	Units: mg/L	Prep Date:	RunNo: 82720						
Client ID: ZZZZZZ	Batch ID: R82720	TestNo: EPA 300.0		Analysis Date: 12/15/2011	SeqNo: 1342277						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	ND	2.5							0	0	20
Sample ID: N007016-001CMS	SampType: MS	TestCode: 300W_NO3P	Units: mg/L	Prep Date:	RunNo: 82720						
Client ID: ZZZZZZ	Batch ID: R82720	TestNo: EPA 300.0		Analysis Date: 12/15/2011	SeqNo: 1342278						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.715	2.5	6.250	0	91.4	80	120				
Sample ID: N007016-001CMSD	SampType: MSD	TestCode: 300W_NO3P	Units: mg/L	Prep Date:	RunNo: 82720						
Client ID: ZZZZZZ	Batch ID: R82720	TestNo: EPA 300.0		Analysis Date: 12/15/2011	SeqNo: 1342279						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate as N	5.840	2.5	6.250	0	93.4	80	120	5.715	2.16	20	

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: MB-R82715	SampType: MBLK	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: PBW	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342109						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									
Sample ID: LCS-R82715	SampType: LCS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: LCSW	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342110						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.999	0.20	5.000	0	100	90	110				
Sample ID: N007013-001KMS	SampType: MS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: ZZZZZZ	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342112						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.999	0.20	1.000	0	99.9	85	115				
Sample ID: N007012-001JDUP	SampType: DUP	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: ZZZZZZ	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342114						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.531	0.20							0.5292	0.329	20
Sample ID: N007013-001KDUP	SampType: DUP	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: ZZZZZZ	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342115						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20							0	0	20

**Qualifiers:**

- B Analyte detected in the associated Method Blank      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
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S Spike/Surrogate outside of limits due to matrix interference      DO Surrogate Diluted Out      Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: <b>N007012-001JMS</b>	SampType: <b>MS</b>	TestCode: <b>7199_WPGE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82715</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82715</b>	TestNo: <b>EPA 7199</b>		Analysis Date: <b>12/14/2011</b>	SeqNo: <b>1342116</b>
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Hexavalent Chromium	1.530	0.20	1.000	0.5292	100
<hr/>					
Sample ID: <b>N007012-001JMSD</b>	SampType: <b>MSD</b>	TestCode: <b>7199_WPGE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82715</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82715</b>	TestNo: <b>EPA 7199</b>		Analysis Date: <b>12/14/2011</b>	SeqNo: <b>1342117</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Hexavalent Chromium	1.530	0.20	1.000	0.5292	100
				85	115
				1.530	0.0165
					20

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8015\_W\_FP\_SFPP

Sample ID: <b>MB-38627</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_FP_</b>	Units: <b>ug/L</b>	Prep Date: <b>12/16/2011</b>	RunNo: <b>82632</b>
Client ID: <b>PBW</b>	Batch ID: <b>38627</b>	TestNo: <b>EPA 8015B</b>	<b>EPA 3510C</b>	Analysis Date: <b>12/20/2011</b>	SeqNo: <b>1341722</b>
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
TPH-Diesel (C13-C22)	ND	50			
TPH-Oil (C23-C36)	14.746	50			J
Surr: Octacosane	74.346		80.00		92.9
Surr: p-Terphenyl	70.263		80.00		87.8
				26	152
				57	132

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8015\_W\_GSFPP

Sample ID: E111219LCS	SampType: LCS	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 82588		
Client ID: LCSW	Batch ID: E11VW067	TestNo: EPA 8015B				Analysis Date: 12/19/2011			SeqNo: 1338650		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	717.000	100	1000	0	71.7	67	136				
Surrogate: Chlorobenzene - d5	55.124		50.00		110	74	138				
Sample ID: E111219MB1	SampType: MBLK	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 82588		
Client ID: PBW	Batch ID: E11VW067	TestNo: EPA 8015B				Analysis Date: 12/19/2011			SeqNo: 1338651		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	ND	100									
Surrogate: Chlorobenzene - d5	58.729		50.00		117	74	138				
Sample ID: N007013-001BMS	SampType: MS	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 82588		
Client ID: ZZZZZZ	Batch ID: E11VW067	TestNo: EPA 8015B				Analysis Date: 12/19/2011			SeqNo: 1338652		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	716.000	100	1000	0	71.6	67	136				
Surrogate: Chlorobenzene - d5	53.559		50.00		107	74	138				
Sample ID: N007013-001BMSD	SampType: MSD	TestCode: 8015_W_GSF Units: µg/L				Prep Date:			RunNo: 82588		
Client ID: ZZZZZZ	Batch ID: E11VW067	TestNo: EPA 8015B				Analysis Date: 12/19/2011			SeqNo: 1338653		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH-Gasoline (C4-C12)	793.000	100	1000	0	79.3	67	136	716.0	10.2	30	
Surrogate: Chlorobenzene - d5	52.046		50.00		104	74	138		0	0	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

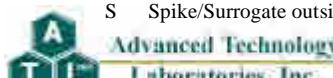
ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216LCS	SampType: LCS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: LCSW	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338121			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	20.860	0.50	20.00	0	104	69	133				
1,2-Dichloroethane	19.650	0.50	20.00	0	98.2	69	132				
Benzene	19.600	1.0	20.00	0	98.0	81	122				
Ethylbenzene	19.690	1.0	20.00	0	98.4	73	127				
m,p-Xylene	40.090	1.0	40.00	0	100	76	128				
MTBE	18.190	1.0	20.00	0	91.0	65	123				
o-Xylene	20.190	1.0	20.00	0	101	80	121				
Tert-Butanol	91.060	5.0	100.0	0	91.1	70	130				
Toluene	19.680	2.0	20.00	0	98.4	77	122				
Surr: 1,2-Dichloroethane-d4	24.280		25.00		97.1	72	119				
Surr: 4-Bromofluorobenzene	24.440		25.00		97.8	76	119				
Surr: Dibromofluoromethane	27.170		25.00		109	85	115				
Surr: Toluene-d8	25.290		25.00		101	81	120				
Sample ID: N007013-001GMS	SampType: MS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338122			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	19.960	0.50	20.00	0	99.8	69	133				
1,2-Dichloroethane	16.680	0.50	20.00	0	83.4	69	132				
Benzene	19.540	1.0	20.00	0	97.7	81	122				
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	15.660	1.0	20.00	0	78.3	65	123				
o-Xylene	20.320	1.0	20.00	0	102	80	121				
Tert-Butanol	67.980	5.0	100.0	0	68.0	70	130				S
Toluene	19.400	2.0	20.00	0	97.0	77	122				
Surr: 1,2-Dichloroethane-d4	20.910		25.00		83.6	72	119				
Surr: 4-Bromofluorobenzene	24.070		25.00		96.3	76	119				
Surr: Dibromofluoromethane	24.900		25.00		99.6	85	115				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: <b>N007013-001GMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82565</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2011</b>	SeqNo: <b>1338122</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	25.270		25.00		101	81	120				

Sample ID: <b>N007013-001GMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82565</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2011</b>	SeqNo: <b>1338123</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	20.680	0.50	20.00	0	103	69	133	19.96	3.54	20	
1,2-Dichloroethane	17.890	0.50	20.00	0	89.4	69	132	16.68	7.00	20	
Benzene	20.090	1.0	20.00	0	100	81	122	19.54	2.78	20	
Ethylbenzene	20.650	1.0	20.00	0	103	73	127	20.31	1.66	20	
m,p-Xylene	41.660	1.0	40.00	0	104	76	128	41.14	1.26	20	
MTBE	17.140	1.0	20.00	0	85.7	65	123	15.66	9.02	20	
o-Xylene	20.860	1.0	20.00	0	104	80	121	20.32	2.62	20	
Tert-Butanol	74.010	5.0	100.0	0	74.0	70	130	67.98	8.49	20	
Toluene	19.830	2.0	20.00	0	99.2	77	122	19.40	2.19	20	
Surr: 1,2-Dichloroethane-d4	21.700		25.00		86.8	72	119		0		
Surr: 4-Bromofluorobenzene	24.650		25.00		98.6	76	119		0		
Surr: Dibromofluoromethane	25.920		25.00		104	85	115		0		
Surr: Toluene-d8	24.850		25.00		99.4	81	120		0		

Sample ID: <b>D111216MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82565</b>						
Client ID: <b>PBW</b>	Batch ID: <b>D11VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2011</b>	SeqNo: <b>1338124</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									

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007013  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216MB2	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82565
Client ID: PBW	Batch ID: D11VW185	TestNo: EPA 8260B		Analysis Date: 12/16/2011	SeqNo: 1338124
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
o-Xylene	ND	1.0			
Tert-Butanol	ND	5.0			
Toluene	ND	2.0			
Surrogate: 1,2-Dichloroethane-d4	21.470		25.00		85.9
Surrogate: 4-Bromofluorobenzene	24.730		25.00		98.9
Surrogate: Dibromofluoromethane	23.060		25.00		92.2
Surrogate: Toluene-d8	25.860		25.00		103
				72	119
				76	119
				85	115
				81	120

### Qualifiers:

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

Advanced Technology Laboratories

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

**CHAIN OF CUSTODY RECORD**

DATE: 12/3/11 OF  
PAGE: 1

Bovisod: 07/01/2011

Advanced Technology Laboratories

3151 W. Post Road

Las Vegas NV 89118

Tel: 702-307-2659 Fax: 702-307-2691

Marion Cartin (marion@atilika.com)

**CHAIN OF CUSTODY RECORD**

DATE: 12/13/11  
PAGE: 1 OF 1



## Advanced Technology Laboratories

3151-3153 W Post Rd., Las Vegas, NV 89118  
www.attglobal.com  
TEL: 7023072659

## CHAIN-OFF-CUSTODY RECORD

Page 1 of 2

### Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

TEL: (562) 989-4045  
FAX: (562) 989-4045  
Acct #: N007013-001J

QC Level: RTNE

Field Sampler: JAMES DYE  
13-Dec-11

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				EPA 420.1	SM 5210 B	SM2540F
N007013-001D / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	32OZP			1
N007013-001F / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	32OZA	1		
N007013-001I / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	16OZP		1	
N007013-001J / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	16OZP			

General Comments:

Please email sample receipt acknowledgement to the PM.

Please use PO#: N007013

Please fax results by: Normal TAT.

Reinquished by:		Date/Time	Date/Time
Reinquished by:		12/13/11 10:30	Received by: 



## Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659 FAX: 7023072891

## CHAIN-OF-CUSTODY RECORD

Page 2 of 2

### Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

TEL: (562) 989-4045  
FAX: (562) 989-4045  
Acct #: 13-Dec-11

QC Level: RTNE

Field Sampler: JAMES DYE

### Requested Tests

Sample ID	Matrix	Date Collected	Bottle Type	SM4500-S-2D	
N007013-001D / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	320ZP		
N007013-001F / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	320ZA		
N007013-001I / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	160ZP		
N007013-001J / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	160ZP	1	

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

Please use PO#: N007013

Please fax results by: Normal TAT.

### Date/Time

12/13/11 @ 8:20

Received by:



**100-334-5000**  
*Call For A Pickup!*

**ROM (Corporate)**  
*Unlime Delivery Fores*

D10241809124

Account  
Number

Date

Item	Zip Code (Required)	Phone Number
------	---------------------	--------------

**PLEASE PRINT IN BLOCK LETTERS** with Blue / Black Ink  
(Company) WE CANNOT DELIVER TO A P.O. BOX

(Company) WE CANNOT DELIVER TO A BOX NUMBER

at Address	154 W. 100 St.	Phila. #
City	Philadelphia	Pa.
State	Penn.	Chas.

Zip Code (Required)	Phone Number
44645	730-341-1881

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<b>OnTrac</b> On-Time Delivery For Business		<b>800-334-5000</b>	
FROM (Company)		Call For A Pickup!	
Street Address  307 Hill Street		Phone Number  410-645-1234	
City  Baltimore		State  MD	
Zip Code (Required)  21201		Phone Number  410-645-1234	
<p align="center"><b>PLEASE PRINT IN BLOCK LETTERS with Blue / Black Ink</b></p> <p>To (Company) WE CANNOT DELIVER TO A P.O. BOX</p>			
Street Address  115 W. Pratt Street		Phone Number  410-645-1234	
City  Baltimore		State  MD	
Zip Code (Required)  21201		Phone Number  410-645-1234	
<p align="center"><b>Service Options</b></p> <p>If no box is checked, Service Level will be applied. Minimum Shipping weight is 30 lbs. Delivery by 3:00 P.M. Note: Delivery times at all services may be later in some areas. Check service guide for visit our website for details.</p>			
<input type="checkbox"/> SUNRISE - BY 10:30 AM*		<input type="checkbox"/> SUNRISE GOLD - BY 8:00 AM*	
<input type="checkbox"/> HEAVYWEIGHT**		<input type="checkbox"/> SATURDAY DELIVERY - Extra Charge (See Service Guide for details)	
<input type="checkbox"/> HOLD FOR PICKUP		<input type="checkbox"/> HOLD FOR PICKUP This shipment requires a delivery signature	
<input type="checkbox"/> Declared Value \$ (maximum \$25,000)		<input type="checkbox"/> C.O.D. Amount \$ Limit \$10,000 (excl. C.O.D. up to package weight)	
<input type="checkbox"/> Weight lbs. (Subject to verification)		<input type="checkbox"/> +225 = Weight lbs. (Subject to verification)	
<input type="checkbox"/> Bill Shipper's Account or Bill Other Acct #		<input type="checkbox"/> Secured Payment (Money Order or Certified Check) <input type="checkbox"/> Unsecured Payment (Company Check or Personal Check)	
<input type="checkbox"/> Dim weight charge if greater than actual weight		<input type="checkbox"/> Driver #  301-555-5555	
<input type="checkbox"/> L.in. X W.in. X H.in.		<input type="checkbox"/> Pickup Time  10:30 AM	
<input type="checkbox"/> Shipper's Name  John Doe		<input type="checkbox"/> Shipper's Signature  John Doe	



# Advanced Technology Laboratories, Inc.

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

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

Cooler Received/Opened On: 12/14/2011 Workorder: N007013  
Rep sample Temp (Deg C): 1.2, 1.8 IR Gun ID: 2  
Temp Blank:  Yes  No  
Carrier name: OnTrac  
Last 4 digits of Tracking No.: 9124 Packing Material Used: Bubble Wrap  
Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

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

Checklist Completed By MBC

Reviewed By: *NS M30h*



December 29, 2011



Marlon Cartin  
Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas, NV 89118  
Tel: (702) 307-2659  
Fax:(702) 307-2691

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003

Re: ATL Work Order Number : 1100638

Client Reference : [none]

Enclosed are the results for sample(s) received on December 13, 2011 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eddie Rodriguez'.

Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/29/2011

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N007013-001D / EFF-12132011	1100638-01	Waste Water	12/13/11 10:00	12/13/11 18:30
N007013-001F / EFF-12132011	1100638-02	Waste Water	12/13/11 10:00	12/13/11 18:30
N007013-001I / EFF-12132011	1100638-03	Waste Water	12/13/11 10:00	12/13/11 18:30
N007013-001J / EFF-12132011	1100638-04	Waste Water	12/13/11 10:00	12/13/11 18:30

### CASE NARRATIVE

The sample for EPA 420.1 (Phenols) analysis was subcontracted to AETL with DOHS Cert.#1541.

The sample for SM5210B (BOD) analysis was subcontracted to American Scientific Laboratories with ELAP Cert.# 2200.



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/29/2011

**Client Sample ID N007013-001D / EFF-12132011**

**Lab ID: 1100638-01**

**Settleable Matter by SM 2540F**

**Analyst: AG**

Analyte	Result (mL/L)	PQL (mL/L)	MDL (mL/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Settleable Matter	ND	0.10	NA	1	B1L0619	12/15/2011	12/15/11 09:35	



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/29/2011

**Client Sample ID N007013-001J / EFF-12132011**

**Lab ID: 1100638-04**

**Sulfide, Total by SM 4500-S=D**

**Analyst: AG**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.01	NA	1	B1L0645	12/19/2011	12/19/11 17:34	



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/29/2011

## QUALITY CONTROL SECTION

### Settleable Matter by SM 2540F - Quality Control

Analyte	Result (mL/L)	PQL (mL/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	------------	--------------	-------

#### Batch B1L0619 - No\_Prep\_WC\_1

##### Blank (B1L0619-BLK1)

Prepared: 12/15/2011 Analyzed: 12/15/2011

Settleable Matter ND 0.10 NR



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/29/2011

### Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

#### Batch B1L0645 - Prep\_WC\_3\_W

**Blank (B1L0645-BLK1)** Prepared: 12/19/2011 Analyzed: 12/19/2011

Sulfide, Total ND 0.01 NR

**LCS (B1L0645-BS1)** Prepared: 12/19/2011 Analyzed: 12/19/2011

Sulfide, Total 0.1 0.01 0.100 97 80 - 120

**Matrix Spike (B1L0645-MS1)** Source: 1100638-04 Prepared: 12/19/2011 Analyzed: 12/19/2011

Sulfide, Total 0.09 0.01 0.100 ND 89 70 - 120

**Matrix Spike Dup (B1L0645-MSD1)** Source: 1100638-04 Prepared: 12/19/2011 Analyzed: 12/19/2011

Sulfide, Total 0.1 0.01 0.100 ND 96 70 - 120 8 20



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/29/2011

### Notes and Definitions

ND Analyte not detected at or above reporting limit

PQL Practical Quantitation Limit

MDL Method Detection Limit

NR Not Reported

RPD Relative Percent Difference

CA1 CA-NELAP (CDPH)

CA2 CA-ELAP (CDPH)

OR1 OR-NELAP (OSPHL)

TX1 TX-NELAP (TCEQ)



## American Environmental Testing Laboratory Inc.

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

### Ordered By

Advanced Technology Laboratories  
3275 Walnut Street  
Signal Hill, CA 90755-5225

Number of Pages 2

Date Received 12/14/2011

Date Reported 12/27/2011

Telephone: (562)989-4045  
Attention: Rachelle Arada

Job Number	Order Date	Client
64133	12/14/2011	ATL

---

Project ID: 1100638  
Project Name: PO# SC06937

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

Checked By:

Approved By:

*C. Razmara*

Cyrus Razmara, Ph.D.  
Laboratory Director



# American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181

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

Page: 1 A

## Ordered By

Advanced Technology Laboratories  
3275 Walnut Street  
Signal Hill, CA 90755-5225

Project ID: 1100638

Date Received 12/14/2011

Date Reported 12/27/2011

Telephone: (562) 989-4045  
Attention: Rachelle Arada

Job Number	Order Date	Client
64133	12/14/2011	ATL

## CERTIFICATE OF ANALYSIS CASE NARRATIVE

AETL received 1 samples with the following specification on 12/14/2011.

Lab ID	Sample ID	Sample Date	Matrix	QTY of Containers
64133.01	1100638-02	12/13/2011	Aqueous	1

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

Checked By: \_\_\_\_\_

Approved By: \_\_\_\_\_

Cyrus Razmara, Ph.D.  
Laboratory Director



# American Environmental Testing Laboratory Inc.

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

## ANALYTICAL RESULTS

### Ordered By

Advanced Technology Laboratories  
3275 Walnut Street  
Signal Hill, CA 90755-5225

Telephone: (562)989-4045

Attn: Rachelle Arada

Page: 2

Project ID: 1100638

Project Name: PO# SC06937

AETL Job Number	Submitted	Client
64133	12/14/2011	ATL

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

QC Batch No: 121911-1

Our Lab I.D.		Method Blank	64133.01			
Client Sample I.D.			1100638-02			
Date Sampled			12/13/2011			
Date Prepared		12/19/2011	12/19/2011			
Preparation Method		420.1	420.1			
Date Analyzed		12/19/2011	12/19/2011			
Matrix		Aqueous	Aqueous			
Units		mg/L	mg/L			
Dilution Factor		1	1			
Analytes	MDL	PQL	Results	Results		
Phenolic compounds as phenol	0.15	0.30	ND	ND		

## QUALITY CONTROL REPORT

QC Batch No: 121911-1; Dup or Spiked Sample: 64107.02; LCS: Clean Water; QC Prepared: 12/19/2011; QC Analyzed: 12/19/2011;  
Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Phenol	0.00	0.500	0.463	92.6	0.500	0.480	96.0	3.6	80-120	<15

QC Batch No: 121911-1; Dup or Spiked Sample: 64107.02; LCS: Clean Water; QC Prepared: 12/19/2011; QC Analyzed: 12/19/2011;  
Units: mg/L

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Phenol	ND	ND	<1	<15	0.500	0.463	92.6	80-120		



## American Environmental Testing Laboratory Inc.

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

## Data Qualifiers and Descriptors

### ***Data Qualifier:***

- \*: In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
- B: Analyte was present in the Method Blank.
- D: Result is from a diluted analysis.
- E: Result is beyond calibration limits and is estimated.
- H: Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
- J: Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
- M: Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
- MCL: Maximum Contaminant Level
- NS: No Standard Available
- S6: Surrogate recovery is outside control limits due to matrix interference.
- S8: The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
- X: Results represent LCS and LCSD data.

### ***Definition:***

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



## American Environmental Testing Laboratory Inc.

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

### Data Qualifiers and Descriptors

MS: Matrix Spike

MS DU: Matrix Spike Duplicate

ND: Analyte was not detected in the sample at or above MDL.

PQL: Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.

Recov: Recovered concentration in the sample.

RPD: Relative Percent Difference


**ADVANCED TECHNOLOGY**  
 LABORATORIES  
**SUBCONTRACT ORDER**

*Job # 64133*

Work Order: 1100638

**SENDING LABORATORY:**

Advanced Technology Laboratories  
 3275 Walnut Avenue  
 Signal Hill, CA 90755  
 Phone: 562.989.4045  
 Fax: 562.989.6348  
 Project Manager: Rachelle Arada

**RECEIVING LABORATORY:**

AETL  
 2834 North Naomi Street  
 Burbank, CA 91504  
 Phone :(818) 845-8200  
 Fax: (818) 845-8840  
 PO#: SC06937 - Standard TAT

**IMPORTANT :** Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1100638-02 Client Sample ID: N007013-001F / EFF Waste Water			12/13/11 10:00	<i>64133.01</i>
420.1_5530BD	12/21/11 17:00	01/10/12 10:00		

<i>[Signature]</i>	12/14/11 1302	<i>[Signature]</i>	12/14/11 1302
Released By	Date	Received By	Date
<i>[Signature]</i>	12/14/11 1820	<i>[Signature]</i>	12/14/11 1820
Released By	Date	Received By	Date



AMERICAN SCIENTIFIC LABORATORIES, LLC

*Environmental Testing Services*

2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

**Ordered By**

Advanced Technology Laboratories  
3275 Walnut Ave.  
Signal Hill, CA 90755-5225

Number of Pages 2

Date Received 12/14/2011

Date Reported 12/21/2011

Telephone (562) 989-4045  
Attn Rachelle Arada

Job Number	Ordered	Client
52001	12/14/2011	ATL

---

Project ID: 1100638

Project Name:

Enclosed are the results of analyses on 1 sample analyzed as specified on attached chain of custody.

A handwritten signature in black ink, appearing to read "Amolk MOLKY Brar".

Amolk MOLKY Brar  
Laboratory Manager

American Scientific Laboratories, LLC (ASL) accepts sample materials from clients for analysis with the assumption that all of the information provided to ASL verbally or in writing by our clients (and/or their agents), regarding samples being submitted to ASL, is complete and accurate. ASL accepts all samples subject to the following conditions:

- 1) ASL is not responsible for verifying any client-provided information regarding any samples submitted to the laboratory.
- 2) ASL is not responsible for any consequences resulting from any inaccuracies, omissions, or misrepresentations contained in client-provided information regarding samples submitted to the laboratory.



**AMERICAN SCIENTIFIC LABORATORIES, LLC**  
*Environmental Testing Services*

2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

**ANALYTICAL RESULTS**

**Ordered By**

Advanced Technology Laboratories  
3275 Walnut Ave.  
Signal Hill, CA 90755-5225

Telephone: (562)989-4045

Attn: Rachelle Arada

Page: **2**

Project ID: 1100638

ASL Job Number	Submitted	Client
52001	12/14/2011	ATL

Method: SM5210B, Biochemical Oxygen Demand (BOD)

**QC Batch No: 121911-1**

Our Lab I.D.		277001					
Client Sample I.D.		1100638-03					
Date Sampled		12/13/2011					
Date Prepared		12/14/2011					
Preparation Method							
Date Analyzed		12/19/2011					
Matrix		Wastewater					
Units		mg/L					
Dilution Factor		1					
Analytes	PQL	Results					
Conventional							
BOD @ 20C	5.00	ND					

**QUALITY CONTROL REPORT**

**QC Batch No: 121911-1**

Analytes	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit					
Conventional										
BOD @ 20C	100	96	4.1	80-120	20					

**ADVANCED TECHNOLOGY  
LABORATORIES**

**SUBCONTRACT ORDER**

**Work Order: 1100638**

*ASL JOB 4 52001*

**SENDING LABORATORY:**

Advanced Technology Laboratories  
3275 Walnut Avenue  
Signal Hill, CA 90755  
Phone: 562.989.4045  
Fax: 562.989.6348  
Project Manager: Rachelle Arada

**RECEIVING LABORATORY:**

American Scientific Laboratories  
2520 N. San Fernando Rd.  
Los Angeles, CA 90065  
Phone :(323) 223-9700  
Fax: (323) 223-9500  
PO#: SC06938 - Standard TAT

**IMPORTANT :** Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments <i>(R) Lab-ID</i>
ATL Lab#: 1100638-03 Client Sample ID: N007013-001I / EFF	<i>12/13/2011</i>	Waste Water	12/13/11 10:00	<i>277001</i>
BOD_SM 5210B	12/21/11 17:00	12/15/11 10:00		

*[Signature]*  
Released By

*12/14/11*  
Date

Received By

*Rachelle*  
*12-14-11 15:07*

Date

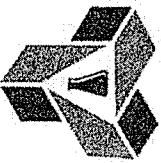
Released By

Date

Received By

Date





## Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659

## CHAIN-OF-CUSTODY RECORD

Page 2 of 2

### Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

TEL: (562) 989-4045  
FAX: (562) 989-4045  
Acct #: FAX: 7023072691

QC Level: RTNE

Date: 13-Dec-11

Field Sampler: JAMES DYE

Requested Tests				
Sample ID	Matrix	Date Collected	Bottle Type	SM4500-S-2D
N007013-001D / EFF-12132011	Wastewater	12/13/2011 10:00:00 AM	32OZP	
N007013-001F / EFF-12132011	-	12/13/2011 10:00:00 AM	32OZA	
N007013-001I / EFF-12132011	-3	12/13/2011 10:00:00 AM	16OZP	
N007013-001J / EFF-12132011	-4	12/13/2011 10:00:00 AM	16OZP	1

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

Please use PO#: N007013

Please fax results by: Normal TAT.

Date/Time	12/13/11 08:30	Received by:	JAMES DYE
Date/Time	12/13/11 08:30	Received by:	JAMES DYE
Date/Time	12/13/11 08:30	Received by:	JAMES DYE
Date/Time	12/13/11 08:30	Received by:	JAMES DYE

December 30, 2011

Daniel Jablonski  
CH2M HILL  
155 Grand Avenue, Suite 1000  
Oakland, CA 94612  
TEL: (213)228-8271  
FAX: (510) 622-9129

CA-ELAP No.:2676  
NV Cert. No.:NV-009222007A  
Workorder No.: N007012

RE: SFPP - Norwalk Site

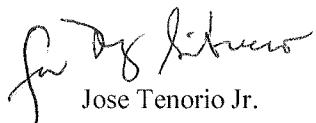
Attention: Daniel Jablonski

Enclosed are the results for sample(s) received on December 13, 2011 by Advanced Technology Laboratories, Inc. . 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,



Jose Tenorio Jr.

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.



Advanced Technology  
Laboratories, Inc.

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

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N007012

**CASE NARRATIVE****SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

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

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

Samples were analyzed within method holding time except for pH. pH testing is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory 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.

Field Temperature was 64.5 degree F .

Field pH =8.6

**Subcontracted Analyses:**

Cyanide by SM 4500-CN E was subcontracted to Advanced Technology Laboratories-Signal Hill, CA .

Asbestos was subcontracted to EMS Laboratories-Pasadena,CA.

TCDD Equivalents w/ 17 Congeners & TEQ was subcontracted to APPL,Inc.- Clovis,CA.

**Analytical Comments for EPA 200.8:**

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

**Analytical Comments for EPA 6010B:**

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**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N007012

---

## CASE NARRATIVE

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for Calcium possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8081A:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Analytical Comments for EPA 8082:

Surrogate Tetrachloro-m-xylene recovery bias low for sample N007012-001 possibly due to matrix interference.

Analytical Comments for EPA 8260B:

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Laboratory Control Sample (LCS) on D111216LCS recovery bias low for 2-Chloroethyl vinyl ether . NELAC standard allows for three analytes in marginal exceedence based on 51-70 analytes on Laboratory Conrol Sample (LCS).

Analytical Comments for EPA 8270C:

Surrogate 4-Terphenyl-d14 recovery bias high for sample N007012-001 possibly due to matrix interference. Sample results were non- detect (ND), therefore reanalysis was not necessary.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria for some analytes possibly due to matrix interference. The associated Laboratory Control Sample (LCS) recovery was acceptable.

Laboratory Control Sample (LCS) on Batch # 38598 recovery bias low for Hexachloropentadiene. NELAC standard allows for three analytes in marginal exceedence based on 51-70 analytes on Laboratory Conrol Sample (LCS).

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**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N007012

---

## CASE NARRATIVE

Surrogate 4-Terphenyl-d14 recovery bias high for Method Blank (MB-35898) .

# Advanced Technology Laboratories, Inc.

Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Project:** SFPP - Norwalk Site  
**Lab Order:** N007012

## Work Order Sample Summary

**Contract No:**

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N007012-001A	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001B	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001C	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001D	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001E	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001F	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001G	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001H	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001I	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011
N007012-001J	UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	12/13/2011	12/13/2011

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**  
**Print Date:** 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**PH**
**SM4500-H+B**

RunID: <b>WETCHEM_111214A</b>	QC Batch: <b>R82532</b>	PrepDate:			Analyst: <b>CEI</b>		
pH	8.8	0.10	0.10	H	pH Units	1	12/14/2011
Temp. at time of pH Analysis	20	0.10	0.10	H	°C	1	12/14/2011

**SEMOVOLATILE ORGANIC COMPOUNDS BY GC/MS**
**EPA 3510C**
**EPA 8270C**

RunID: <b>MS4_111214A</b>	QC Batch: <b>38598</b>	PrepDate:	<b>12/14/2011</b>	Analyst: <b>MDM</b>		
1,2,4-Trichlorobenzene	ND	4.5	10	µg/L	1	12/14/2011 06:01 PM
1,2-Dichlorobenzene	ND	4.9	10	µg/L	1	12/14/2011 06:01 PM
1,2-Diphenylhydrazine	ND	3.8	10	µg/L	1	12/14/2011 06:01 PM
1,3-Dichlorobenzene	ND	5.2	10	µg/L	1	12/14/2011 06:01 PM
1,4-Dichlorobenzene	ND	4.6	10	µg/L	1	12/14/2011 06:01 PM
2,4,5-Trichlorophenol	ND	3.8	10	µg/L	1	12/14/2011 06:01 PM
2,4,6-Trichlorophenol	ND	4.6	10	µg/L	1	12/14/2011 06:01 PM
2,4-Dichlorophenol	ND	4.4	10	µg/L	1	12/14/2011 06:01 PM
2,4-Dimethylphenol	ND	3.7	10	µg/L	1	12/14/2011 06:01 PM
2,4-Dinitrophenol	ND	3.4	52	µg/L	1	12/14/2011 06:01 PM
2,4-Dinitrotoluene	ND	3.9	10	µg/L	1	12/14/2011 06:01 PM
2,6-Dinitrotoluene	ND	4.1	10	µg/L	1	12/14/2011 06:01 PM
2-Chloronaphthalene	ND	4.2	10	µg/L	1	12/14/2011 06:01 PM
2-Chlorophenol	ND	3.8	10	µg/L	1	12/14/2011 06:01 PM
2-Methylnaphthalene	ND	4.6	10	µg/L	1	12/14/2011 06:01 PM
2-Methylphenol	ND	2.7	10	µg/L	1	12/14/2011 06:01 PM
2-Nitroaniline	ND	4.3	52	µg/L	1	12/14/2011 06:01 PM
2-Nitrophenol	ND	4.9	10	µg/L	1	12/14/2011 06:01 PM
3,3'-Dichlorobenzidine	ND	3.7	21	µg/L	1	12/14/2011 06:01 PM
3-Nitroaniline	ND	4.1	52	µg/L	1	12/14/2011 06:01 PM
4,6-Dinitro-2-methylphenol	ND	3.0	52	µg/L	1	12/14/2011 06:01 PM
4-Bromophenyl-phenylether	ND	4.1	10	µg/L	1	12/14/2011 06:01 PM
4-Chloro-3-methylphenol	ND	3.6	52	µg/L	1	12/14/2011 06:01 PM
4-Chloroaniline	ND	4.7	21	µg/L	1	12/14/2011 06:01 PM
4-Chlorophenyl-phenylether	ND	3.6	10	µg/L	1	12/14/2011 06:01 PM
4-Methylphenol	ND	5.7	10	µg/L	1	12/14/2011 06:01 PM
4-Nitroaniline	ND	4.0	21	µg/L	1	12/14/2011 06:01 PM
4-Nitrophenol	ND	1.6	52	µg/L	1	12/14/2011 06:01 PM
Acenaphthene	ND	4.4	10	µg/L	1	12/14/2011 06:01 PM
Acenaphthylene	ND	4.0	10	µg/L	1	12/14/2011 06:01 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



**Advanced Technology**  
**Laboratories, Inc.**

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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>SEMOVOLATILE ORGANIC COMPOUNDS BY GC/MS</b>							
	<b>EPA 3510C</b>						<b>EPA 8270C</b>
RunID: <b>MS4_111214A</b>	QC Batch: <b>38598</b>			PrepDate:	<b>12/14/2011</b>		<b>Analyst: MDM</b>
Anthracene	ND	3.8	10		µg/L	1	12/14/2011 06:01 PM
Benzidine (M)	ND	2.4	52		µg/L	1	12/14/2011 06:01 PM
Benzo(a)anthracene	ND	5.3	10		µg/L	1	12/14/2011 06:01 PM
Benzo(a)pyrene	ND	5.7	10		µg/L	1	12/14/2011 06:01 PM
Benzo(b)fluoranthene	ND	5.8	10		µg/L	1	12/14/2011 06:01 PM
Benzo(g,h,i)perylene	ND	6.0	10		µg/L	1	12/14/2011 06:01 PM
Benzo(k)fluoranthene	ND	5.6	10		µg/L	1	12/14/2011 06:01 PM
Benzoic acid	ND	2.9	52		µg/L	1	12/14/2011 06:01 PM
Benzyl alcohol	ND	4.6	21		µg/L	1	12/14/2011 06:01 PM
Bis(2-chloroethoxy)methane	ND	4.7	10		µg/L	1	12/14/2011 06:01 PM
Bis(2-chloroethyl)ether	ND	5.6	10		µg/L	1	12/14/2011 06:01 PM
Bis(2-chloroisopropyl)ether	ND	4.5	10		µg/L	1	12/14/2011 06:01 PM
Bis(2-ethylhexyl)phthalate	ND	2.8	10		µg/L	1	12/14/2011 06:01 PM
Butylbenzylphthalate	ND	3.5	10		µg/L	1	12/14/2011 06:01 PM
Chrysene	ND	2.4	10		µg/L	1	12/14/2011 06:01 PM
Di-n-butylphthalate	ND	3.1	10		µg/L	1	12/14/2011 06:01 PM
Di-n-octylphthalate	ND	3.1	10		µg/L	1	12/14/2011 06:01 PM
Dibenz(a,h)anthracene	ND	5.8	10		µg/L	1	12/14/2011 06:01 PM
Dibenzofuran	ND	3.9	10		µg/L	1	12/14/2011 06:01 PM
Diethylphthalate	6.9	3.4	10	J	µg/L	1	12/14/2011 06:01 PM
Dimethylphthalate	ND	3.8	10		µg/L	1	12/14/2011 06:01 PM
Fluoranthene	ND	3.2	10		µg/L	1	12/14/2011 06:01 PM
Fluorene	ND	3.7	10		µg/L	1	12/14/2011 06:01 PM
Hexachlorobenzene	ND	4.1	10		µg/L	1	12/14/2011 06:01 PM
Hexachlorobutadiene	ND	5.2	21		µg/L	1	12/14/2011 06:01 PM
Hexachlorocyclopentadiene	ND	4.5	10		µg/L	1	12/14/2011 06:01 PM
Hexachloroethane	ND	4.9	10		µg/L	1	12/14/2011 06:01 PM
Indeno(1,2,3-cd)pyrene	ND	5.8	10		µg/L	1	12/14/2011 06:01 PM
Isophorone	ND	4.5	10		µg/L	1	12/14/2011 06:01 PM
N-Nitrosodi-n-propylamine	ND	5.2	10		µg/L	1	12/14/2011 06:01 PM
N-Nitrosodimethylamine	ND	3.2	52		µg/L	1	12/14/2011 06:01 PM
N-Nitrosodiphenylamine	ND	4.1	10		µg/L	1	12/14/2011 06:01 PM
Naphthalene	ND	4.6	10		µg/L	1	12/14/2011 06:01 PM
Nitrobenzene	ND	4.8	10		µg/L	1	12/14/2011 06:01 PM
Pentachlorophenol	ND	3.0	52		µg/L	1	12/14/2011 06:01 PM
Phenanthrene	ND	3.8	10		µg/L	1	12/14/2011 06:01 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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

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

**SEMOVOLATILE ORGANIC COMPOUNDS BY GC/MS**
**EPA 3510C**
**EPA 8270C**

RunID: MS4_111214A	QC Batch:	38598			PrepDate:	12/14/2011	Analyst: MDM	
Phenol		ND	1.6	10	µg/L	1	12/14/2011 06:01 PM	
Pyrene		ND	3.3	10	µg/L	1	12/14/2011 06:01 PM	
Surr: 1,2-Dichlorobenzene-d4		48.5	0	27-100	%REC	1	12/14/2011 06:01 PM	
Surr: 2,4,6-Tribromophenol		86.6	0	42-124	%REC	1	12/14/2011 06:01 PM	
Surr: 2-Chlorophenol-d4		53.5	0	34-98	%REC	1	12/14/2011 06:01 PM	
Surr: 2-Fluorobiphenyl		58.6	0	48-120	%REC	1	12/14/2011 06:01 PM	
Surr: 2-Fluorophenol		40.2	0	20-120	%REC	1	12/14/2011 06:01 PM	
Surr: 4-Terphenyl-d14		145	0	51-135	S	%REC	1	12/14/2011 06:01 PM
Surr: Nitrobenzene-d5		60.1	0	41-120	%REC	1	12/14/2011 06:01 PM	
Surr: Phenol-d5		32.7	0	20-120	%REC	1	12/14/2011 06:01 PM	

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**
**EPA 8260B**

RunID: MS1_111216A	QC Batch:	D11VW185			PrepDate:		Analyst: QBM
1,1,1,2-Tetrachloroethane		ND	0.061	1.0	µg/L	1	12/16/2011 02:19 PM
1,1,1-Trichloroethane		ND	0.068	1.0	µg/L	1	12/16/2011 02:19 PM
1,1,2,2-Tetrachloroethane		ND	0.054	1.0	µg/L	1	12/16/2011 02:19 PM
1,1,2-Trichloroethane		ND	0.083	1.0	µg/L	1	12/16/2011 02:19 PM
1,1-Dichloroethane		ND	0.099	0.50	µg/L	1	12/16/2011 02:19 PM
1,1-Dichloroethene		ND	0.094	1.0	µg/L	1	12/16/2011 02:19 PM
1,1-Dichloropropene		ND	0.082	1.0	µg/L	1	12/16/2011 02:19 PM
1,2,3-Trichlorobenzene		ND	0.10	1.0	µg/L	1	12/16/2011 02:19 PM
1,2,3-Trichloropropane		ND	0.12	1.0	µg/L	1	12/16/2011 02:19 PM
1,2,4-Trichlorobenzene		ND	0.12	1.0	µg/L	1	12/16/2011 02:19 PM
1,2,4-Trimethylbenzene		ND	0.095	1.0	µg/L	1	12/16/2011 02:19 PM
1,2-Dibromo-3-chloropropane		ND	0.15	2.0	µg/L	1	12/16/2011 02:19 PM
1,2-Dibromoethane		ND	0.14	1.0	µg/L	1	12/16/2011 02:19 PM
1,2-Dichlorobenzene		ND	0.070	1.0	µg/L	1	12/16/2011 02:19 PM
1,2-Dichloroethane		ND	0.17	0.50	µg/L	1	12/16/2011 02:19 PM
1,2-Dichloropropane		ND	0.085	1.0	µg/L	1	12/16/2011 02:19 PM
1,3,5-Trimethylbenzene		ND	0.087	1.0	µg/L	1	12/16/2011 02:19 PM
1,3-Dichlorobenzene		ND	0.090	1.0	µg/L	1	12/16/2011 02:19 PM
1,3-Dichloropropane		ND	0.074	1.0	µg/L	1	12/16/2011 02:19 PM
1,4-Dichlorobenzene		ND	0.092	1.0	µg/L	1	12/16/2011 02:19 PM
2,2-Dichloropropane		ND	0.061	1.0	µg/L	1	12/16/2011 02:19 PM
2-Butanone		ND	1.0	10	µg/L	1	12/16/2011 02:19 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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses		Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>								
<b>EPA 8260B</b>								
RunID: <b>MS1_111216A</b>	QC Batch: <b>D11VW185</b>				PrepDate:			<b>Analyst: QBM</b>
2-Chloroethyl vinyl ether	ND	0.14	1.0		µg/L	1	12/20/2011 08:49 PM	
2-Chlorotoluene	ND	0.080	1.0		µg/L	1	12/16/2011 02:19 PM	
4-Chlorotoluene	ND	0.10	1.0		µg/L	1	12/16/2011 02:19 PM	
4-Isopropyltoluene	ND	0.080	1.0		µg/L	1	12/16/2011 02:19 PM	
4-Methyl-2-pentanone	ND	0.76	10		µg/L	1	12/16/2011 02:19 PM	
Acetone	4.8	1.6	10	J	µg/L	1	12/16/2011 02:19 PM	
Acrolein	ND	4.3	20		µg/L	1	12/16/2011 02:19 PM	
Acrylonitrile	ND	0.61	20		µg/L	1	12/16/2011 02:19 PM	
Benzene	ND	0.075	1.0		µg/L	1	12/16/2011 02:19 PM	
Bromobenzene	ND	0.082	1.0		µg/L	1	12/16/2011 02:19 PM	
Bromochloromethane	ND	0.15	1.0		µg/L	1	12/16/2011 02:19 PM	
Bromodichloromethane	ND	0.063	1.0		µg/L	1	12/16/2011 02:19 PM	
Bromoform	ND	0.086	1.0		µg/L	1	12/16/2011 02:19 PM	
Bromomethane	ND	0.13	1.0		µg/L	1	12/16/2011 02:19 PM	
Carbon disulfide	ND	0.054	1.0		µg/L	1	12/16/2011 02:19 PM	
Carbon tetrachloride	ND	0.10	1.0		µg/L	1	12/16/2011 02:19 PM	
Chlorobenzene	ND	0.092	1.0		µg/L	1	12/16/2011 02:19 PM	
Chloroethane	ND	0.14	1.0		µg/L	1	12/16/2011 02:19 PM	
Chloroform	ND	0.058	1.0		µg/L	1	12/16/2011 02:19 PM	
Chloromethane	ND	0.054	1.0		µg/L	1	12/16/2011 02:19 PM	
cis-1,2-Dichloroethene	ND	0.11	1.0		µg/L	1	12/16/2011 02:19 PM	
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	12/16/2011 02:19 PM	
Dibromochloromethane	ND	0.061	1.0		µg/L	1	12/16/2011 02:19 PM	
Dibromomethane	ND	0.15	1.0		µg/L	1	12/16/2011 02:19 PM	
Dichlorodifluoromethane	ND	0.12	1.0		µg/L	1	12/16/2011 02:19 PM	
Ethylbenzene	ND	0.051	1.0		µg/L	1	12/16/2011 02:19 PM	
Freon-113	ND	0.080	1.0		µg/L	1	12/16/2011 02:19 PM	
Hexachlorobutadiene	ND	0.17	1.0		µg/L	1	12/16/2011 02:19 PM	
Isopropylbenzene	ND	0.057	1.0		µg/L	1	12/16/2011 02:19 PM	
m,p-Xylene	ND	0.17	1.0		µg/L	1	12/16/2011 02:19 PM	
Methylene chloride	ND	0.10	2.0		µg/L	1	12/16/2011 02:19 PM	
MTBE	ND	0.089	1.0		µg/L	1	12/16/2011 02:19 PM	
n-Butylbenzene	ND	0.082	1.0		µg/L	1	12/16/2011 02:19 PM	
n-Propylbenzene	ND	0.087	1.0		µg/L	1	12/16/2011 02:19 PM	
Naphthalene	ND	0.056	1.0		µg/L	1	12/16/2011 02:19 PM	
o-Xylene	ND	0.077	1.0		µg/L	1	12/16/2011 02:19 PM	

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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

**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**
**EPA 8260B**

RunID: MS1_111216A	QC Batch: D11VW185		PrepDate:		Analyst: QBM
sec-Butylbenzene	ND	0.098	1.0	µg/L	1 12/16/2011 02:19 PM
Styrene	ND	0.072	1.0	µg/L	1 12/16/2011 02:19 PM
tert-Butylbenzene	ND	0.062	1.0	µg/L	1 12/16/2011 02:19 PM
Tetrachloroethene	ND	0.13	1.0	µg/L	1 12/16/2011 02:19 PM
Toluene	ND	0.12	2.0	µg/L	1 12/16/2011 02:19 PM
trans-1,2-Dichloroethene	ND	0.094	1.0	µg/L	1 12/16/2011 02:19 PM
trans-1,3-Dichloropropene	ND	0.10	1.0	µg/L	1 12/16/2011 02:19 PM
Trichloroethene	ND	0.060	1.0	µg/L	1 12/16/2011 02:19 PM
Trichlorofluoromethane	ND	0.097	1.0	µg/L	1 12/16/2011 02:19 PM
Vinyl chloride	ND	0.12	1.0	µg/L	1 12/16/2011 02:19 PM
Xylenes, Total	ND	1.5	2.0	µg/L	1 12/16/2011 02:19 PM
Surr: 1,2-Dichloroethane-d4	96.6	0	72-119	%REC	1 12/20/2011 08:49 PM
Surr: 1,2-Dichloroethane-d4	82.5	0	72-119	%REC	1 12/16/2011 02:19 PM
Surr: 4-Bromofluorobenzene	96.6	0	76-119	%REC	1 12/20/2011 08:49 PM
Surr: 4-Bromofluorobenzene	101	0	76-119	%REC	1 12/16/2011 02:19 PM
Surr: Dibromofluoromethane	103	0	85-115	%REC	1 12/20/2011 08:49 PM
Surr: Dibromofluoromethane	91.4	0	85-115	%REC	1 12/16/2011 02:19 PM
Surr: Toluene-d8	104	0	81-120	%REC	1 12/16/2011 02:19 PM
Surr: Toluene-d8	95.8	0	81-120	%REC	1 12/20/2011 08:49 PM

**ORGANOCHLORINE PESTICIDES BY GC/ECD**
**EPA 3510C**
**EPA 8081A**

RunID: GC5_111216A	QC Batch: 38612		PrepDate:	12/15/2011	Analyst: MDM
4,4'-DDD	ND	0.0052	0.052	µg/L	1 12/16/2011 04:26 AM
4,4'-DDE	ND	0.0052	0.052	µg/L	1 12/16/2011 04:26 AM
4,4'-DDT	ND	0.0052	0.052	µg/L	1 12/16/2011 04:26 AM
Aldrin	ND	0.0044	0.026	µg/L	1 12/16/2011 04:26 AM
alpha-BHC	ND	0.0046	0.026	µg/L	1 12/16/2011 04:26 AM
alpha-Chlordane	ND	0.0050	0.026	µg/L	1 12/16/2011 04:26 AM
beta-BHC	ND	0.0035	0.026	µg/L	1 12/16/2011 04:26 AM
Chlordane	ND	0.043	0.26	µg/L	1 12/16/2011 04:26 AM
delta-BHC	ND	0.0043	0.026	µg/L	1 12/16/2011 04:26 AM
Dieldrin	ND	0.0048	0.052	µg/L	1 12/16/2011 04:26 AM
Endosulfan I	ND	0.0038	0.026	µg/L	1 12/16/2011 04:26 AM
Endosulfan II	ND	0.0047	0.052	µg/L	1 12/16/2011 04:26 AM
Endosulfan sulfate	ND	0.0067	0.052	µg/L	1 12/16/2011 04:26 AM

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**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**  
**Print Date:** 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>ORGANOCHLORINE PESTICIDES BY GC/ECD</b>							
<b>EPA 3510C</b>				<b>EPA 8081A</b>			
RunID: <b>GC5_111216A</b>	QC Batch: <b>38612</b>			PrepDate:	<b>12/15/2011</b>		<b>Analyst: MDM</b>
Endrin	ND	0.0035	0.052	µg/L	1	12/16/2011 04:26 AM	
Endrin aldehyde	ND	0.0043	0.052	µg/L	1	12/16/2011 04:26 AM	
gamma-BHC	ND	0.0043	0.026	µg/L	1	12/16/2011 04:26 AM	
gamma-Chlordane	ND	0.0038	0.026	µg/L	1	12/16/2011 04:26 AM	
Heptachlor	ND	0.0051	0.026	µg/L	1	12/16/2011 04:26 AM	
Heptachlor epoxide	ND	0.0050	0.026	µg/L	1	12/16/2011 04:26 AM	
Methoxychlor	ND	0.0037	0.26	µg/L	1	12/16/2011 04:26 AM	
Toxaphene	ND	0.27	2.6	µg/L	1	12/16/2011 04:26 AM	
Surr: Tetrachloro-m-xylene	37.0	0	33-138	%REC	1	12/16/2011 04:26 AM	
Surr: Decachlorobiphenyl	75.2	0	29-135	%REC	1	12/16/2011 04:26 AM	
<b>PCBS BY GC/ECD</b>							
<b>EPA 3510C</b>				<b>EPA 8082</b>			
RunID: <b>GC5_111216B</b>	QC Batch: <b>38612</b>			PrepDate:	<b>12/15/2011</b>		<b>Analyst: MDM</b>
Aroclor 1016	ND	0.072	0.52	µg/L	1	12/16/2011 11:23 PM	
Aroclor 1221	ND	0.24	1.0	µg/L	1	12/16/2011 11:23 PM	
Aroclor 1232	ND	0.12	0.52	µg/L	1	12/16/2011 11:23 PM	
Aroclor 1242	ND	0.13	0.52	µg/L	1	12/16/2011 11:23 PM	
Aroclor 1248	ND	0.072	0.52	µg/L	1	12/16/2011 11:23 PM	
Aroclor 1254	ND	0.072	0.52	µg/L	1	12/16/2011 11:23 PM	
Aroclor 1260	ND	0.052	0.52	µg/L	1	12/16/2011 11:23 PM	
Surr: Decachlorobiphenyl	86.0	0	29-133	%REC	1	12/16/2011 11:23 PM	
Surr: Tetrachloro-m-xylene	40.4	0	50-120	S	%REC	1	12/16/2011 11:23 PM
<b>HEXAVALENT CHROMIUM BY IC</b>							
<b>EPA 7199</b>							
RunID: <b>IC1_111214A</b>	QC Batch: <b>R82715</b>			PrepDate:			<b>Analyst: QBM</b>
Hexavalent Chromium	0.53	0.014	0.20	µg/L	1	12/14/2011 10:00 AM	
<b>MERCURY BY COLD VAPOR TECHNIQUE</b>							
<b>EPA 245.1</b>							
RunID: <b>AA1_111216A</b>	QC Batch: <b>38594</b>			PrepDate:	<b>12/14/2011</b>		<b>Analyst: CEI</b>
Mercury	ND	0.026	0.050	µg/L	1	12/16/2011	

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DO Surrogate Diluted Out



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**Advanced Technology Laboratories, Inc.**
**ANALYTICAL RESULTS**

Print Date: 30-Dec-11

**CLIENT:** CH2M HILL  
**Lab Order:** N007012  
**Project:** SFPP - Norwalk Site  
**Lab ID:** N007012-001

**Client Sample ID:** UCC-12132011  
**Collection Date:** 12/13/2011 12:30:00 PM  
**Matrix:** WASTEWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**HARDNESS BY CALCULATION**
**EPA 3010A**
**SM 2340 B**

RunID: <b>ICP2_111229A</b>	QC Batch: <b>38724</b>	PrepDate: <b>12/28/2011</b>	Analyst: <b>KAB</b>		
Hardness, Calcium (As CaCO <sub>3</sub> )	78	0.50	mg/L	1	12/29/2011
Hardness, Magnesium (As CaCO <sub>3</sub> )	44	0.50	mg/L	1	12/29/2011
Total Hardness (As CaCO <sub>3</sub> )	120	1.0	mg/L	1	12/29/2011

**ICP METALS**
**EPA 3010A**
**EPA 6010B**

RunID: <b>ICP2_111229A</b>	QC Batch: <b>38724</b>	PrepDate: <b>12/28/2011</b>	Analyst: <b>KAB</b>		
Calcium	31	0.12	mg/L	1	12/29/2011 03:19 PM
Magnesium	11	0.0063	mg/L	1	12/29/2011 03:19 PM

**ICPMS METALS**
**EPA 200.8**

RunID: <b>ICP7_111215A</b>	QC Batch: <b>38593</b>	PrepDate: <b>12/14/2011</b>	Analyst: <b>CEI</b>		
Antimony	1.3	0.019	µg/L	1	12/15/2011 12:09 PM
Arsenic	2.2	0.0025	µg/L	1	12/15/2011 12:09 PM
Beryllium	0.018	0.0090	µg/L	1	12/15/2011 12:09 PM
Cadmium	ND	0.020	µg/L	1	12/15/2011 12:09 PM
Chromium	1.6	0.0080	µg/L	1	12/15/2011 12:09 PM
Copper	9.0	0.010	µg/L	1	12/15/2011 12:09 PM
Lead	2.5	0.021	µg/L	1	12/15/2011 12:09 PM
Nickel	3.2	0.086	µg/L	1	12/15/2011 12:09 PM
Selenium	1.1	0.018	µg/L	1	12/15/2011 12:09 PM
Silver	ND	0.0050	µg/L	1	12/15/2011 12:09 PM
Thallium	ND	0.043	µg/L	1	12/15/2011 12:09 PM
Zinc	31	0.16	µg/L	1	12/15/2011 12:09 PM

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ND Not Detected at the Reporting Limit  
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J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



**Advanced Technology**  
**Laboratories, Inc.**

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

CLIENT: CH2M HILL

Work Order: N007012

Project: SFPP - Norwalk Site

**ANALYTICAL QC SUMMARY REPORT****TestCode: 150.1\_4500H+B\_W**

Sample ID: <b>N007012-001ADUP</b>	SampType: DUP	TestCode: <b>150.1_4500H+</b>	Units: pH Units	Prep Date:	RunNo: <b>82532</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82532</b>	TestNo: <b>SM4500-H+B</b>		Analysis Date: <b>12/14/2011</b>	SeqNo: <b>1337473</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.750	0.10				8.760		0.114	10	H	
Temp. at time of pH Analysis	20.200	0.10				20.20		0	10	H	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W\_SFPP

Sample ID: MB-38593	SampType: MBLK	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: PBW	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338153			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	ND	0.50
Arsenic	ND	0.10
Beryllium	ND	0.50
Cadmium	ND	0.25
Chromium	ND	0.50
Copper	ND	0.50
Lead	ND	0.50
Nickel	ND	1.0
Selenium	ND	0.50
Silver	ND	0.25
Thallium	ND	0.50
Zinc	ND	10

Sample ID: LCS-38593	SampType: LCS	TestCode: 200.8_W_SFPP Units: µg/L			Prep Date: 12/14/2011			RunNo: 82564			
Client ID: LCSW	Batch ID: 38593	TestNo: EPA 200.8			Analysis Date: 12/15/2011			SeqNo: 1338154			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	10.010	0.50	10.00	0	100	85	115				
Arsenic	10.320	0.10	10.00	0	103	85	115				
Beryllium	9.470	0.50	10.00	0	94.7	85	115				
Cadmium	10.214	0.25	10.00	0	102	85	115				
Chromium	10.462	0.50	10.00	0	105	85	115				
Copper	10.165	0.50	10.00	0	102	85	115				
Lead	10.010	0.50	10.00	0	100	85	115				
Nickel	10.506	1.0	10.00	0	105	85	115				
Selenium	10.278	0.50	10.00	0	103	85	115				
Silver	10.172	0.25	10.00	0	102	85	115				
Thallium	9.894	0.50	10.00	0	98.9	85	115				
Zinc	104.875	10	100.0	0	105	85	115				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 200.8\_W\_SFPP**

Sample ID: <b>N007013-001H-MS</b>	SampType: <b>MS</b>	TestCode: <b>200.8_W_SFPP</b> Units: <b>µg/L</b>				Prep Date: <b>12/14/2011</b>			RunNo: <b>82564</b>		
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38593</b>	TestNo: <b>EPA 200.8</b>				Analysis Date: <b>12/15/2011</b>			SeqNo: <b>1338161</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	5.720	0.50	10.00	0	57.2	75	125				S
Lead	8.599	0.50	10.00	0	86.0	75	125				
Selenium	7.869	0.50	10.00	0.07969	77.9	75	125				
Thallium	8.961	0.50	10.00	0	89.6	75	125				
Zinc	78.261	10	100.0	3.998	74.3	75	125				S
Sample ID: <b>N007013-001H-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W_SFPP</b> Units: <b>µg/L</b>				Prep Date: <b>12/14/2011</b>			RunNo: <b>82564</b>		
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38593</b>	TestNo: <b>EPA 200.8</b>				Analysis Date: <b>12/15/2011</b>			SeqNo: <b>1338162</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	5.885	0.50	10.00	0	58.9	75	125	5.720	2.85	20	S
Lead	8.558	0.50	10.00	0	85.6	75	125	8.599	0.481	20	
Selenium	8.061	0.50	10.00	0.07969	79.8	75	125	7.869	2.41	20	
Thallium	8.970	0.50	10.00	0	89.7	75	125	8.961	0.0971	20	
Zinc	78.294	10	100.0	3.998	74.3	75	125	78.261	0.0425	20	S
Sample ID: <b>N007012-001C-MS</b>	SampType: <b>MS</b>	TestCode: <b>200.8_W_SFPP</b> Units: <b>µg/L</b>				Prep Date: <b>12/14/2011</b>			RunNo: <b>82564</b>		
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38593</b>	TestNo: <b>EPA 200.8</b>				Analysis Date: <b>12/15/2011</b>			SeqNo: <b>1338163</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	8.684	0.50	10.00	1.280	74.0	75	125				S
Arsenic	10.209	0.10	10.00	2.172	80.4	75	125				
Beryllium	8.436	0.50	10.00	0.01780	84.2	75	125				
Cadmium	6.350	0.25	10.00	0	63.5	75	125				S
Chromium	9.938	0.50	10.00	1.555	83.8	75	125				
Copper	15.467	0.50	10.00	9.016	64.5	75	125				S
Lead	10.621	0.50	10.00	2.532	80.9	75	125				
Nickel	10.622	1.0	10.00	3.179	74.4	75	125				S
Selenium	8.993	0.50	10.00	1.089	79.0	75	125				
Silver	8.526	0.25	10.00	0	85.3	75	125				

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 200.8\_W\_SFPP

Sample ID: N007012-001C-MS	SampType: MS	TestCode: 200.8_W_SFPP Units: µg/L				Prep Date: 12/14/2011			RunNo: 82564		
Client ID: ZZZZZZ	Batch ID: 38593	TestNo: EPA 200.8				Analysis Date: 12/15/2011			SeqNo: 1338163		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	8.636	0.50	10.00	0	86.4	75	125				
Zinc	105.291	10	100.0	30.93	74.4	75	125				S
Sample ID: N007012-001C-MSD	SampType: MSD	TestCode: 200.8_W_SFPP Units: µg/L				Prep Date: 12/14/2011			RunNo: 82564		
Client ID: ZZZZZZ	Batch ID: 38593	TestNo: EPA 200.8				Analysis Date: 12/15/2011			SeqNo: 1338164		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	8.713	0.50	10.00	1.280	74.3	75	125	8.684	0.332	20	S
Arsenic	10.232	0.10	10.00	2.172	80.6	75	125	10.21	0.226	20	
Beryllium	8.424	0.50	10.00	0.01780	84.1	75	125	8.436	0.142	20	
Cadmium	6.386	0.25	10.00	0	63.9	75	125	6.350	0.564	20	S
Chromium	9.807	0.50	10.00	1.555	82.5	75	125	9.938	1.33	20	
Copper	15.423	0.50	10.00	9.016	64.1	75	125	15.47	0.284	20	S
Lead	10.667	0.50	10.00	2.532	81.4	75	125	10.62	0.438	20	
Nickel	10.560	1.0	10.00	3.179	73.8	75	125	10.62	0.580	20	S
Selenium	8.940	0.50	10.00	1.089	78.5	75	125	8.993	0.600	20	
Silver	8.646	0.25	10.00	0	86.5	75	125	8.526	1.40	20	
Thallium	8.724	0.50	10.00	0	87.2	75	125	8.636	1.01	20	
Zinc	105.598	10	100.0	30.93	74.7	75	125	105.3	0.291	20	S

**Qualifiers:**

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out

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



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 245.1\_W\_LL

Sample ID: LCS-38594	SampType: LCS	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: LCSW	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338198						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.683	0.050	2.500	0	107	85	115				
Sample ID: MB-38594	SampType: MBLK	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: PBW	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338199						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.050									
Sample ID: N007012-001C-MS	SampType: MS	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: ZZZZZZ	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338201						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.689	0.050	2.500	0	108	75	125				
Sample ID: N007012-001C-MSD	SampType: MSD	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: ZZZZZZ	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338202						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.711	0.050	2.500	0	108	75	125	2.689	0.827	20	
Sample ID: N007013-001H-MS	SampType: MS	TestCode: 245.1_W_LL	Units: µg/L	Prep Date: 12/14/2011	RunNo: 82568						
Client ID: ZZZZZZ	Batch ID: 38594	TestNo: EPA 245.1		Analysis Date: 12/16/2011	SeqNo: 1338204						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.544	0.050	2.500	0	102	75	125				

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 245.1\_W\_LL

Sample ID: <b>N007013-001H-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>245.1_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>12/14/2011</b>	RunNo: <b>82568</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38594</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>12/16/2011</b>	SeqNo: <b>1338205</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Mercury	2.616	0.050	2.500	0	105
				75	125
				2.544	2.82
					20
					Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 6010\_W

Sample ID: MB-38724	SampType: MBLK	TestCode: 6010_W	Units: mg/L	Prep Date: 12/28/2011	RunNo: 82708						
Client ID: PBW	Batch ID: 38724	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 12/29/2011	SeqNo: 1341962						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	ND	0.50									
Magnesium	ND	0.10									
Sample ID: LCS-38724	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 12/28/2011	RunNo: 82708						
Client ID: LCSW	Batch ID: 38724	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 12/29/2011	SeqNo: 1341963						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	10.473	0.50	10.00	0	105	85	115				
Magnesium	9.952	0.10	10.00	0	99.5	85	115				
Sample ID: N007012-001C-MS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 12/28/2011	RunNo: 82708						
Client ID: ZZZZZZ	Batch ID: 38724	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 12/29/2011	SeqNo: 1341966						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	47.116	0.50	10.00	31.39	157	75	125				S
Magnesium	21.839	0.10	10.00	10.64	112	75	125				
Sample ID: N007012-001C-MSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 12/28/2011	RunNo: 82708						
Client ID: ZZZZZZ	Batch ID: 38724	TestNo: EPA 6010B	EPA 3010A	Analysis Date: 12/29/2011	SeqNo: 1341967						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	47.193	0.50	10.00	31.39	158	75	125	47.12	0.162	20	S
Magnesium	21.963	0.10	10.00	10.64	113	75	125	21.84	0.562	20	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

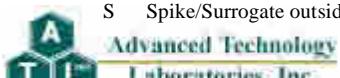
ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: MB-R82715	SampType: MBLK	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: PBW	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342109						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20									
Sample ID: LCS-R82715	SampType: LCS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: LCSW	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342110						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	4.999	0.20	5.000	0	100	90	110				
Sample ID: N007013-001KMS	SampType: MS	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: ZZZZZZ	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342112						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.999	0.20	1.000	0	99.9	85	115				
Sample ID: N007012-001JDUP	SampType: DUP	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: ZZZZZZ	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342114						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.531	0.20							0.5292	0.329	20
Sample ID: N007013-001KDUP	SampType: DUP	TestCode: 7199_WPGE	Units: µg/L	Prep Date:	RunNo: 82715						
Client ID: ZZZZZZ	Batch ID: R82715	TestNo: EPA 7199		Analysis Date: 12/14/2011	SeqNo: 1342115						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexavalent Chromium	ND	0.20							0	0	20

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 7199\_WPGE

Sample ID: <b>N007012-001JMS</b>	SampType: <b>MS</b>	TestCode: <b>7199_WPGE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82715</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82715</b>	TestNo: <b>EPA 7199</b>		Analysis Date: <b>12/14/2011</b>	SeqNo: <b>1342116</b>
<hr/>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Hexavalent Chromium	1.530	0.20	1.000	0.5292	100
<hr/>					
Sample ID: <b>N007012-001JMSD</b>	SampType: <b>MSD</b>	TestCode: <b>7199_WPGE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>82715</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R82715</b>	TestNo: <b>EPA 7199</b>		Analysis Date: <b>12/14/2011</b>	SeqNo: <b>1342117</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Hexavalent Chromium	1.530	0.20	1.000	0.5292	100
				85	115
				1.530	0.0165
					20

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8081\_W\_PGE

Sample ID: LCS-38612_OCP	SampType: LCS	TestCode: 8081_W_PGE Units: µg/L			Prep Date: 12/15/2011			RunNo: 82584			
Client ID: LCSW	Batch ID: 38612	TestNo: EPA 8081A EPA 3510C			Analysis Date: 12/16/2011			SeqNo: 1338584			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.582	0.050	0.5000	0	116	50	139				
4,4'-DDE	0.532	0.050	0.5000	0	106	48	137				
4,4'-DDT	0.527	0.050	0.5000	0	105	47	138				
Aldrin	0.478	0.025	0.5000	0	95.7	42	138				
alpha-BHC	0.494	0.025	0.5000	0	98.8	60	128				
alpha-Chlordane	0.457	0.025	0.5000	0	91.4	63	123				
beta-BHC	0.459	0.025	0.5000	0	91.7	66	126				
delta-BHC	0.491	0.025	0.5000	0	98.2	46	136				
Dieldrin	0.499	0.050	0.5000	0	99.8	62	129				
Endosulfan I	0.477	0.025	0.5000	0	95.4	49	120				
Endosulfan II	0.454	0.050	0.5000	0	90.9	42	130				
Endosulfan sulfate	0.456	0.050	0.5000	0	91.2	54	137				
Endrin	0.542	0.050	0.5000	0	108	56	134				
Endrin aldehyde	0.457	0.050	0.5000	0	91.3	56	137				
gamma-BHC	0.480	0.025	0.5000	0	95.9	30	146				
gamma-Chlordane	0.482	0.025	0.5000	0	96.3	67	120				
Heptachlor	0.452	0.025	0.5000	0	90.4	51	128				
Heptachlor epoxide	0.475	0.025	0.5000	0	95.0	62	131				
Methoxychlor	0.584	0.25	0.5000	0	117	56	150				
Surr: Tetrachloro-m-xylene	0.428		0.5000		85.6	33	138				
Surr: Decachlorobiphenyl	0.391		0.5000		78.2	29	135				

Sample ID: MB-38612	SampType: MBLK	TestCode: 8081_W_PGE Units: µg/L			Prep Date: 12/15/2011			RunNo: 82584			
Client ID: PBW	Batch ID: 38612	TestNo: EPA 8081A EPA 3510C			Analysis Date: 12/16/2011			SeqNo: 1338585			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.050									
4,4'-DDE	ND	0.050									
4,4'-DDT	ND	0.050									
Aldrin	ND	0.025									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8081\_W\_PGE

Sample ID: MB-38612	SampType: MBLK	TestCode: 8081_W_PGE Units: µg/L			Prep Date: 12/15/2011		RunNo: 82584		
Client ID: PBW	Batch ID: 38612	TestNo: EPA 8081A EPA 3510C			Analysis Date: 12/16/2011		SeqNo: 1338585		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
alpha-BHC	ND	0.025							
alpha-Chlordane	ND	0.025							
beta-BHC	ND	0.025							
Chlordane	ND	0.25							
delta-BHC	ND	0.025							
Dieldrin	ND	0.050							
Endosulfan I	ND	0.025							
Endosulfan II	ND	0.050							
Endosulfan sulfate	ND	0.050							
Endrin	ND	0.050							
Endrin aldehyde	ND	0.050							
gamma-BHC	ND	0.025							
gamma-Chlordane	ND	0.025							
Heptachlor	ND	0.025							
Heptachlor epoxide	ND	0.025							
Methoxychlor	ND	0.25							
Toxaphene	ND	2.5							
Surr: Tetrachloro-m-xylene	0.388	0.5000			77.5	33	138		
Surr: Decachlorobiphenyl	0.444	0.5000			88.8	29	135		

Sample ID: N007012-001D-MS_	SampType: MS	TestCode: 8081_W_PGE Units: µg/L			Prep Date: 12/15/2011		RunNo: 82584		
Client ID: ZZZZZZ	Batch ID: 38612	TestNo: EPA 8081A EPA 3510C			Analysis Date: 12/16/2011		SeqNo: 1338587		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
4,4'-DDD	0.448	0.052	0.5208	0	86.0	50	139		
4,4'-DDE	0.389	0.052	0.5208	0	74.7	48	137		
4,4'-DDT	0.389	0.052	0.5208	0	74.7	47	138		
Aldrin	0.319	0.026	0.5208	0	61.2	42	138		
alpha-BHC	0.346	0.026	0.5208	0	66.5	60	128		
alpha-Chlordane	0.347	0.026	0.5208	0	66.6	63	123		

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8081\_W\_PGE

Sample ID: N007012-001D-MS_	SampType: MS	TestCode: 8081_W_PGE	Units: µg/L	Prep Date:	12/15/2011	RunNo:	82584				
Client ID: ZZZZZZ	Batch ID: 38612	TestNo: EPA 8081A	EPA 3510C	Analysis Date:	12/16/2011	SeqNo:	1338587				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

beta-BHC	0.324	0.026	0.5208	0	62.2	66	126				S
delta-BHC	0.286	0.026	0.5208	0	54.9	46	136				
Dieldrin	0.388	0.052	0.5208	0	74.5	62	129				
Endosulfan I	0.400	0.026	0.5208	0	76.9	49	120				
Endosulfan II	0.354	0.052	0.5208	0	67.9	42	130				
Endosulfan sulfate	0.349	0.052	0.5208	0	67.0	54	137				
Endrin	0.416	0.052	0.5208	0	80.0	56	134				
Endrin aldehyde	0.399	0.052	0.5208	0	76.6	56	137				
gamma-BHC	0.334	0.026	0.5208	0	64.2	30	146				
gamma-Chlordane	0.360	0.026	0.5208	0	69.2	67	120				
Heptachlor	0.310	0.026	0.5208	0	59.5	51	128				
Heptachlor epoxide	0.370	0.026	0.5208	0	71.0	62	131				
Methoxychlor	0.435	0.26	0.5208	0	83.5	56	150				
Surr: Tetrachloro-m-xylene	0.312		0.5208		59.8	33	138				
Surr: Decachlorobiphenyl	0.297		0.5208		57.0	29	135				

Sample ID: N007012-001D-MSD	SampType: MSD	TestCode: 8081_W_PGE	Units: µg/L	Prep Date:	12/15/2011	RunNo:	82584				
Client ID: ZZZZZZ	Batch ID: 38612	TestNo: EPA 8081A	EPA 3510C	Analysis Date:	12/16/2011	SeqNo:	1338588				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	0.480	0.054	0.5376	0	89.3	50	139	0.4478	6.97	30	
4,4'-DDE	0.387	0.054	0.5376	0	72.1	48	137	0.3889	0.402	30	
4,4'-DDT	0.404	0.054	0.5376	0	75.2	47	138	0.3892	3.75	30	
Aldrin	0.300	0.027	0.5376	0	55.8	42	138	0.3187	6.00	30	
alpha-BHC	0.314	0.027	0.5376	0	58.4	60	128	0.3463	9.78	30	S
alpha-Chlordane	0.350	0.027	0.5376	0	65.1	63	123	0.3467	0.965	30	
beta-BHC	0.333	0.027	0.5376	0	62.0	66	126	0.3239	2.90	30	S
delta-BHC	0.292	0.027	0.5376	0	54.2	46	136	0.2859	1.98	30	
Dieldrin	0.379	0.054	0.5376	0	70.6	62	129	0.3878	2.18	30	
Endosulfan I	0.404	0.027	0.5376	0	75.2	49	120	0.4003	0.959	30	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8081\_W\_PGE

Sample ID: N007012-001D-MSD SampType: MSD		TestCode: 8081_W_PGE Units: µg/L			Prep Date: 12/15/2011			RunNo: 82584			
Client ID: ZZZZZZ	Batch ID: 38612	TestNo: EPA 8081A		EPA 3510C	Analysis Date: 12/16/2011			SeqNo: 1338588			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Endosulfan II	0.376	0.054	0.5376	0	69.9	42	130	0.3538	6.02	30	
Endosulfan sulfate	0.357	0.054	0.5376	0	66.5	54	137	0.3490	2.39	30	
Endrin	0.443	0.054	0.5376	0	82.4	56	134	0.4165	6.18	30	
Endrin aldehyde	0.414	0.054	0.5376	0	77.0	56	137	0.3989	3.67	30	
gamma-BHC	0.326	0.027	0.5376	0	60.7	30	146	0.3343	2.38	30	
gamma-Chlordane	0.366	0.027	0.5376	0	68.0	67	120	0.3603	1.52	30	
Heptachlor	0.301	0.027	0.5376	0	56.0	51	128	0.3098	2.86	30	
Heptachlor epoxide	0.368	0.027	0.5376	0	68.5	62	131	0.3695	0.374	30	
Methoxychlor	0.448	0.27	0.5376	0	83.4	56	150	0.4348	3.09	30	
Toxaphene	ND	2.7	5.376	0	0	41	126	0	0	30	S
Surr: Tetrachloro-m-xylene	0.279		0.5376		51.9	33	138		0	30	
Surr: Decachlorobiphenyl	0.296		0.5376		55.1	29	135		0	30	

**Qualifiers:**

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out

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



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8082\_W\_PGE**

Sample ID: <b>LCS-38612</b>	SampType: <b>LCS</b>	TestCode: <b>8082_W_PGE</b> Units: <b>µg/L</b>				Prep Date: <b>12/15/2011</b>			RunNo: <b>82585</b>		
Client ID: <b>LCSW</b>	Batch ID: <b>38612</b>	TestNo: <b>EPA 8082    EPA 3510C</b>				Analysis Date: <b>12/16/2011</b>			SeqNo: <b>1338589</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	5.182	0.50	5.000	0	104	40	144				
Aroclor 1260	4.613	0.50	5.000	0	92.3	45	145				
Surr: Decachlorobiphenyl	0.511		0.5000		102	29	133				
Surr: Tetrachloro-m-xylene	0.420		0.5000		83.9	50	120				
Sample ID: <b>MB-38612</b>	SampType: <b>MBLK</b>	TestCode: <b>8082_W_PGE</b> Units: <b>µg/L</b>				Prep Date: <b>12/15/2011</b>			RunNo: <b>82585</b>		
Client ID: <b>PBW</b>	Batch ID: <b>38612</b>	TestNo: <b>EPA 8082    EPA 3510C</b>				Analysis Date: <b>12/16/2011</b>			SeqNo: <b>1338590</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.50									
Aroclor 1221	ND	1.0									
Aroclor 1232	ND	0.50									
Aroclor 1242	ND	0.50									
Aroclor 1248	ND	0.50									
Aroclor 1254	ND	0.50									
Aroclor 1260	ND	0.50									
Surr: Decachlorobiphenyl	0.530		0.5000		106	29	133				
Surr: Tetrachloro-m-xylene	0.411		0.5000		82.2	50	120				
Sample ID: <b>N007012-001D-MS</b>	SampType: <b>MS</b>	TestCode: <b>8082_W_PGE</b> Units: <b>µg/L</b>				Prep Date: <b>12/15/2011</b>			RunNo: <b>82585</b>		
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>38612</b>	TestNo: <b>EPA 8082    EPA 3510C</b>				Analysis Date: <b>12/16/2011</b>			SeqNo: <b>1338592</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	2.984	0.52	5.208	0	57.3	40	144				
Aroclor 1260	3.575	0.52	5.208	0	68.6	45	145				
Surr: Decachlorobiphenyl	0.393		0.5208		75.4	29	133				
Surr: Tetrachloro-m-xylene	0.305		0.5208		58.5	50	120				

**Qualifiers:**

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



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8082\_W\_PGE

Sample ID: N007012-001D-MSD	SampType: MSD	TestCode: 8082_W_PGE	Units: µg/L	Prep Date:	12/15/2011	RunNo:	82585				
Client ID: ZZZZZZ	Batch ID: 38612	TestNo: EPA 8082	EPA 3510C	Analysis Date:	12/17/2011	SeqNo:	1338593				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	3.541	0.53	5.319	0	66.6	40	144	2.984	17.1	30	
Aroclor 1260	3.817	0.53	5.319	0	71.8	45	145	3.575	6.54	30	
Surr: Decachlorobiphenyl	0.407		0.5319		76.5	29	133		0		
Surr: Tetrachloro-m-xylene	0.316		0.5319		59.4	50	120		0		

### Qualifiers:

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216LCS	SampType: LCS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: LCSW	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338121			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	18.260	1.0	20.00	0	91.3	81	129				
1,1,1-Trichloroethane	15.440	1.0	20.00	0	77.2	67	132				
1,1,2,2-Tetrachloroethane	20.240	1.0	20.00	0	101	63	128				
1,1,2-Trichloroethane	19.540	1.0	20.00	0	97.7	75	125				
1,1-Dichloroethane	20.860	0.50	20.00	0	104	69	133				
1,1-Dichloroethene	20.790	1.0	20.00	0	104	68	130				
1,1-Dichloropropene	19.000	1.0	20.00	0	95.0	73	132				
1,2,3-Trichlorobenzene	19.240	1.0	20.00	0	96.2	67	137				
1,2,3-Trichloropropane	17.620	1.0	20.00	0	88.1	73	124				
1,2,4-Trichlorobenzene	19.640	1.0	20.00	0	98.2	66	134				
1,2,4-Trimethylbenzene	20.740	1.0	20.00	0	104	74	132				
1,2-Dibromo-3-chloropropane	18.910	2.0	20.00	0	94.6	50	132				
1,2-Dibromoethane	19.230	1.0	20.00	0	96.2	80	121				
1,2-Dichlorobenzene	19.640	1.0	20.00	0	98.2	71	122				
1,2-Dichloroethane	19.650	0.50	20.00	0	98.2	69	132				
1,2-Dichloropropane	19.150	1.0	20.00	0	95.8	75	125				
1,3,5-Trimethylbenzene	20.810	1.0	20.00	0	104	74	131				
1,3-Dichlorobenzene	19.490	1.0	20.00	0	97.5	75	124				
1,3-Dichloropropane	19.140	1.0	20.00	0	95.7	73	126				
1,4-Dichlorobenzene	19.250	1.0	20.00	0	96.2	74	123				
2,2-Dichloropropane	15.870	1.0	20.00	0	79.4	69	137				
2-Butanone	164.260	10	200.0	0	82.1	49	136				
2-Chloroethyl vinyl ether	ND	1.0	20.00	0	0	70	130				S
2-Chlorotoluene	20.220	1.0	20.00	0	101	73	126				
4-Chlorotoluene	20.150	1.0	20.00	0	101	74	128				
4-Isopropyltoluene	20.520	1.0	20.00	0	103	73	130				
4-Methyl-2-pentanone	188.150	10	200.0	0	94.1	58	134				
Acetone	159.520	10	200.0	0	79.8	40	135				
Acrolein	182.770	20	200.0	0	91.4	75	125				
Acrylonitrile	186.650	20	200.0	0	93.3	75	125				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216LCS	SampType: LCS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: LCSW	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338121			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.600	1.0	20.00	0	98.0	81	122				
Bromobenzene	19.670	1.0	20.00	0	98.4	76	124				
Bromo-chloromethane	20.610	1.0	20.00	0	103	65	129				
Bromo-dichloromethane	16.660	1.0	20.00	0	83.3	76	121				
Bromoform	18.260	1.0	20.00	0	91.3	69	128				
Bromomethane	18.590	1.0	20.00	0	93.0	53	141				
Carbon disulfide	19.700	1.0	20.00	0	98.5	75	125				
Carbon tetrachloride	21.550	1.0	20.00	0	108	66	138				
Chlorobenzene	19.940	1.0	20.00	0	99.7	81	122				
Chloroethane	19.970	1.0	20.00	0	99.8	58	133				
Chloroform	19.700	1.0	20.00	0	98.5	69	128				
Chloromethane	19.850	1.0	20.00	0	99.2	56	131				
cis-1,2-Dichloroethene	21.050	1.0	20.00	0	105	72	126				
cis-1,3-Dichloropropene	19.570	1.0	20.00	0	97.9	69	131				
Dibromo-chloromethane	18.020	1.0	20.00	0	90.1	66	133				
Dibromomethane	20.620	1.0	20.00	0	103	76	125				
Dichlorodifluoromethane	19.670	1.0	20.00	0	98.4	53	153				
Ethylbenzene	19.690	1.0	20.00	0	98.4	73	127				
Freon-113	17.060	1.0	20.00	0	85.3	75	125				
Hexachlorobutadiene	20.480	1.0	20.00	0	102	67	131				
Isopropylbenzene	20.630	1.0	20.00	0	103	75	127				
m,p-Xylene	40.090	1.0	40.00	0	100	76	128				
Methylene chloride	19.890	2.0	20.00	0	99.4	63	137				
MTBE	18.190	1.0	20.00	0	91.0	65	123				
n-Butylbenzene	20.260	1.0	20.00	0	101	69	137				
n-Propylbenzene	20.670	1.0	20.00	0	103	72	129				
Naphthalene	18.940	1.0	20.00	0	94.7	54	138				
o-Xylene	20.190	1.0	20.00	0	101	80	121				
sec-Butylbenzene	20.530	1.0	20.00	0	103	72	127				
Styrene	20.860	1.0	20.00	0	104	65	134				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216LCS	SampType: LCS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: LCSW	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338121			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
tert-Butylbenzene	20.550	1.0	20.00	0	103	70	129				
Tetrachloroethene	20.240	1.0	20.00	0	101	66	128				
Toluene	19.680	2.0	20.00	0	98.4	77	122				
trans-1,2-Dichloroethene	20.850	1.0	20.00	0	104	63	137				
trans-1,3-Dichloropropene	19.820	1.0	20.00	0	99.1	59	135				
Trichloroethene	18.990	1.0	20.00	0	95.0	70	127				
Trichlorofluoromethane	19.850	1.0	20.00	0	99.2	57	129				
Vinyl chloride	19.410	1.0	20.00	0	97.0	50	134				
Xylenes, Total	60.280	2.0	60.00	0	100	75	125				
Surr: 1,2-Dichloroethane-d4	24.280		25.00		97.1	72	119				
Surr: 4-Bromofluorobenzene	24.440		25.00		97.8	76	119				
Surr: Dibromofluoromethane	27.170		25.00		109	85	115				
Surr: Toluene-d8	25.290		25.00		101	81	120				
Sample ID: N007013-001GMS	SampType: MS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338122			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	17.960	1.0	20.00	0	89.8	81	129				
1,1,1-Trichloroethane	15.630	1.0	20.00	0	78.2	67	132				
1,1,2,2-Tetrachloroethane	17.650	1.0	20.00	0	88.2	63	128				
1,1,2-Trichloroethane	16.740	1.0	20.00	0	83.7	75	125				
1,1-Dichloroethane	19.960	0.50	20.00	0	99.8	69	133				
1,1-Dichloroethene	21.070	1.0	20.00	0	105	68	130				
1,1-Dichloropropene	20.100	1.0	20.00	0	101	73	132				
1,2,3-Trichlorobenzene	18.380	1.0	20.00	0	91.9	67	137				
1,2,3-Trichloropropane	15.160	1.0	20.00	0	75.8	73	124				
1,2,4-Trichlorobenzene	20.010	1.0	20.00	0	100	66	134				
1,2,4-Trimethylbenzene	21.470	1.0	20.00	0	107	74	132				
1,2-Dibromo-3-chloropropane	14.920	2.0	20.00	0	74.6	50	132				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: N007013-001GMS	SampType: MS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338122			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	16.610	1.0	20.00	0	83.0	80	121				
1,2-Dichlorobenzene	19.180	1.0	20.00	0	95.9	71	122				
1,2-Dichloroethane	16.680	0.50	20.00	0	83.4	69	132				
1,2-Dichloropropane	18.130	1.0	20.00	0	90.7	75	125				
1,3,5-Trimethylbenzene	22.010	1.0	20.00	0	110	74	131				
1,3-Dichlorobenzene	20.490	1.0	20.00	0	102	75	124				
1,3-Dichloropropane	17.010	1.0	20.00	0	85.0	73	126				
1,4-Dichlorobenzene	19.720	1.0	20.00	0	98.6	74	123				
2,2-Dichloropropane	15.860	1.0	20.00	0	79.3	69	137				
2-Butanone	88.490	10	200.0	0	44.2	49	136				S
2-Chloroethyl vinyl ether	ND	1.0	20.00	0	0	70	130				S
2-Chlorotoluene	21.330	1.0	20.00	0	107	73	126				
4-Chlorotoluene	21.380	1.0	20.00	0	107	74	128				
4-Isopropyltoluene	22.290	1.0	20.00	0	111	73	130				
4-Methyl-2-pentanone	149.800	10	200.0	0	74.9	58	134				
Acetone	64.720	10	200.0	0	32.4	40	135				S
Acrolein	147.890	20	200.0	0	73.9	75	125				S
Acrylonitrile	142.220	20	200.0	0	71.1	75	125				S
Benzene	19.540	1.0	20.00	0	97.7	81	122				
Bromobenzene	19.650	1.0	20.00	0	98.2	76	124				
Bromochloromethane	17.810	1.0	20.00	0	89.0	65	129				
Bromodichloromethane	15.690	1.0	20.00	0	78.4	76	121				
Bromoform	15.810	1.0	20.00	0	79.0	69	128				
Bromomethane	18.570	1.0	20.00	0	92.8	53	141				
Carbon disulfide	20.190	1.0	20.00	0	101	75	125				
Carbon tetrachloride	22.400	1.0	20.00	0	112	66	138				
Chlorobenzene	19.740	1.0	20.00	0	98.7	81	122				
Chloroethane	20.030	1.0	20.00	0	100	58	133				
Chloroform	18.180	1.0	20.00	0	90.9	69	128				
Chloromethane	19.930	1.0	20.00	0	99.7	56	131				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: N007013-001GMS	SampType: MS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82565			
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011			SeqNo: 1338122			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	19.810	1.0	20.00	0	99.0	72	126				
cis-1,3-Dichloropropene	18.790	1.0	20.00	0	94.0	69	131				
Dibromochloromethane	16.200	1.0	20.00	0	81.0	66	133				
Dibromomethane	16.500	1.0	20.00	0	82.5	76	125				
Dichlorodifluoromethane	20.210	1.0	20.00	0	101	53	153				
Ethylbenzene	20.310	1.0	20.00	0	102	73	127				
Freon-113	16.700	1.0	20.00	0	83.5	75	125				
Hexachlorobutadiene	22.320	1.0	20.00	0	112	67	131				
Isopropylbenzene	22.350	1.0	20.00	0	112	75	127				
m,p-Xylene	41.140	1.0	40.00	0	103	76	128				
Methylene chloride	18.050	2.0	20.00	0	90.3	63	137				
MTBE	15.660	1.0	20.00	0	78.3	65	123				
n-Butylbenzene	22.640	1.0	20.00	0	113	69	137				
n-Propylbenzene	22.470	1.0	20.00	0	112	72	129				
Naphthalene	16.200	1.0	20.00	0	81.0	54	138				
o-Xylene	20.320	1.0	20.00	0	102	80	121				
sec-Butylbenzene	22.220	1.0	20.00	0	111	72	127				
Styrene	19.630	1.0	20.00	0	98.2	65	134				
tert-Butylbenzene	21.970	1.0	20.00	0	110	70	129				
Tetrachloroethene	21.620	1.0	20.00	0	108	66	128				
Toluene	19.400	2.0	20.00	0	97.0	77	122				
trans-1,2-Dichloroethene	20.220	1.0	20.00	0	101	63	137				
trans-1,3-Dichloropropene	18.250	1.0	20.00	0	91.2	59	135				
Trichloroethene	19.730	1.0	20.00	0	98.6	70	127				
Trichlorofluoromethane	21.080	1.0	20.00	0	105	57	129				
Vinyl chloride	20.290	1.0	20.00	0	101	50	134				
Xylenes, Total	61.460	2.0	60.00	0	102	75	125				
Surr: 1,2-Dichloroethane-d4	20.910		25.00		83.6	72	119				
Surr: 4-Bromofluorobenzene	24.070		25.00		96.3	76	119				
Surr: Dibromofluoromethane	24.900		25.00		99.6	85	115				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: N007013-001GMS	SampType: MS	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:			RunNo: 82565				
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B		Analysis Date: 12/16/2011			SeqNo: 1338122				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	25.270		25.00		101	81	120				
Sample ID: N007013-001GMSD	SampType: MSD	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:			RunNo: 82565				
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B		Analysis Date: 12/16/2011			SeqNo: 1338123				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	18.540	1.0	20.00	0	92.7	81	129	17.96	3.18	20	
1,1,1-Trichloroethane	15.870	1.0	20.00	0	79.4	67	132	15.63	1.52	20	
1,1,2,2-Tetrachloroethane	18.730	1.0	20.00	0	93.6	63	128	17.65	5.94	20	
1,1,2-Trichloroethane	17.940	1.0	20.00	0	89.7	75	125	16.74	6.92	20	
1,1-Dichloroethane	20.680	0.50	20.00	0	103	69	133	19.96	3.54	20	
1,1-Dichloroethene	19.050	1.0	20.00	0	95.2	68	130	21.07	10.1	20	
1,1-Dichloropropene	20.070	1.0	20.00	0	100	73	132	20.10	0.149	20	
1,2,3-Trichlorobenzene	19.220	1.0	20.00	0	96.1	67	137	18.38	4.47	20	
1,2,3-Trichloropropane	16.210	1.0	20.00	0	81.0	73	124	15.16	6.69	20	
1,2,4-Trichlorobenzene	20.800	1.0	20.00	0	104	66	134	20.01	3.87	20	
1,2,4-Trimethylbenzene	21.460	1.0	20.00	0	107	74	132	21.47	0.0466	20	
1,2-Dibromo-3-chloropropane	16.660	2.0	20.00	0	83.3	50	132	14.92	11.0	20	
1,2-Dibromoethane	17.640	1.0	20.00	0	88.2	80	121	16.61	6.01	20	
1,2-Dichlorobenzene	20.150	1.0	20.00	0	101	71	122	19.18	4.93	20	
1,2-Dichloroethane	17.890	0.50	20.00	0	89.4	69	132	16.68	7.00	20	
1,2-Dichloropropane	19.440	1.0	20.00	0	97.2	75	125	18.13	6.97	20	
1,3,5-Trimethylbenzene	22.000	1.0	20.00	0	110	74	131	22.01	0.0454	20	
1,3-Dichlorobenzene	21.080	1.0	20.00	0	105	75	124	20.49	2.84	20	
1,3-Dichloropropane	18.310	1.0	20.00	0	91.6	73	126	17.01	7.36	20	
1,4-Dichlorobenzene	20.430	1.0	20.00	0	102	74	123	19.72	3.54	20	
2,2-Dichloropropane	16.370	1.0	20.00	0	81.8	69	137	15.86	3.16	20	
2-Butanone	96.690	10	200.0	0	48.3	49	136	88.49	8.86	20	S
2-Chloroethyl vinyl ether	ND	1.0	20.00	0	0	70	130	0	0	20	S
2-Chlorotoluene	21.630	1.0	20.00	0	108	73	126	21.33	1.40	20	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: N007013-001GMSD	SampType: MSD	TestCode: 8260_WP_SF Units: µg/L			Prep Date:				RunNo: 82565		
Client ID: ZZZZZZ	Batch ID: D11VW185	TestNo: EPA 8260B			Analysis Date: 12/16/2011				SeqNo: 1338123		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	21.540	1.0	20.00	0	108	74	128	21.38	0.746	20	
4-Isopropyltoluene	22.250	1.0	20.00	0	111	73	130	22.29	0.180	20	
4-Methyl-2-pentanone	161.800	10	200.0	0	80.9	58	134	149.8	7.70	20	
Acetone	67.600	10	200.0	0	33.8	40	135	64.72	4.35	20	S
Acrolein	154.090	20	200.0	0	77.0	75	125	147.9	4.11	20	
Acrylonitrile	150.100	20	200.0	0	75.0	75	125	142.2	5.39	20	
Benzene	20.090	1.0	20.00	0	100	81	122	19.54	2.78	20	
Bromobenzene	20.490	1.0	20.00	0	102	76	124	19.65	4.19	20	
Bromochloromethane	19.630	1.0	20.00	0	98.2	65	129	17.81	9.72	20	
Bromodichloromethane	16.530	1.0	20.00	0	82.6	76	121	15.69	5.21	20	
Bromoform	16.550	1.0	20.00	0	82.8	69	128	15.81	4.57	20	
Bromomethane	19.310	1.0	20.00	0	96.6	53	141	18.57	3.91	20	
Carbon disulfide	19.730	1.0	20.00	0	98.6	75	125	20.19	2.30	20	
Carbon tetrachloride	22.350	1.0	20.00	0	112	66	138	22.40	0.223	20	
Chlorobenzene	20.510	1.0	20.00	0	103	81	122	19.74	3.83	20	
Chloroethane	20.860	1.0	20.00	0	104	58	133	20.03	4.06	20	
Chloroform	19.290	1.0	20.00	0	96.5	69	128	18.18	5.92	20	
Chloromethane	20.390	1.0	20.00	0	102	56	131	19.93	2.28	20	
cis-1,2-Dichloroethene	21.250	1.0	20.00	0	106	72	126	19.81	7.01	20	
cis-1,3-Dichloropropene	19.520	1.0	20.00	0	97.6	69	131	18.79	3.81	20	
Dibromochloromethane	17.100	1.0	20.00	0	85.5	66	133	16.20	5.41	20	
Dibromomethane	18.600	1.0	20.00	0	93.0	76	125	16.50	12.0	20	
Dichlorodifluoromethane	20.260	1.0	20.00	0	101	53	153	20.21	0.247	20	
Ethylbenzene	20.650	1.0	20.00	0	103	73	127	20.31	1.66	20	
Freon-113	16.670	1.0	20.00	0	83.4	75	125	16.70	0.180	20	
Hexachlorobutadiene	22.000	1.0	20.00	0	110	67	131	22.32	1.44	20	
Isopropylbenzene	22.190	1.0	20.00	0	111	75	127	22.35	0.718	20	
m,p-Xylene	41.660	1.0	40.00	0	104	76	128	41.14	1.26	20	
Methylene chloride	19.240	2.0	20.00	0	96.2	63	137	18.05	6.38	20	
MTBE	17.140	1.0	20.00	0	85.7	65	123	15.66	9.02	20	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: <b>N007013-001GMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:				RunNo: <b>82565</b>			
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>D11VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2011</b>				SeqNo: <b>1338123</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

n-Butylbenzene	22.600	1.0	20.00	0	113	69	137	22.64	0.177	20
n-Propylbenzene	22.400	1.0	20.00	0	112	72	129	22.47	0.312	20
Naphthalene	16.930	1.0	20.00	0	84.6	54	138	16.20	4.41	20
o-Xylene	20.860	1.0	20.00	0	104	80	121	20.32	2.62	20
sec-Butylbenzene	22.200	1.0	20.00	0	111	72	127	22.22	0.0900	20
Styrene	19.550	1.0	20.00	0	97.8	65	134	19.63	0.408	20
tert-Butylbenzene	22.170	1.0	20.00	0	111	70	129	21.97	0.906	20
Tetrachloroethene	21.770	1.0	20.00	0	109	66	128	21.62	0.691	20
Toluene	19.830	2.0	20.00	0	99.2	77	122	19.40	2.19	20
trans-1,2-Dichloroethene	20.940	1.0	20.00	0	105	63	137	20.22	3.50	20
trans-1,3-Dichloropropene	18.900	1.0	20.00	0	94.5	59	135	18.25	3.50	20
Trichloroethene	19.590	1.0	20.00	0	98.0	70	127	19.73	0.712	20
Trichlorofluoromethane	21.500	1.0	20.00	0	108	57	129	21.08	1.97	20
Vinyl chloride	20.430	1.0	20.00	0	102	50	134	20.29	0.688	20
Xylenes, Total	62.520	2.0	60.00	0	104	75	125	61.46	1.71	20
Surr: 1,2-Dichloroethane-d4	21.700		25.00		86.8	72	119		0	
Surr: 4-Bromofluorobenzene	24.650		25.00		98.6	76	119		0	
Surr: Dibromofluoromethane	25.920		25.00		104	85	115		0	
Surr: Toluene-d8	24.850		25.00		99.4	81	120		0	

Sample ID: <b>D111216MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_SF</b>	Units: <b>µg/L</b>	Prep Date:				RunNo: <b>82565</b>			
Client ID: <b>PBW</b>	Batch ID: <b>D11VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2011</b>				SeqNo: <b>1338124</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1,2-Tetrachloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,1,2-Trichloroethane	ND	1.0
1,1-Dichloroethane	ND	0.50
1,1-Dichloroethene	ND	1.0

### Qualifiers:

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216MB2	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82565						
Client ID: PBW	Batch ID: D11VW185	TestNo: EPA 8260B		Analysis Date: 12/16/2011	SeqNo: 1338124						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0									
1,2,3-Trichlorobenzene	ND	1.0									
1,2,3-Trichloropropane	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromo-3-chloropropane	ND	2.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,3-Dichloropropane	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2,2-Dichloropropane	ND	1.0									
2-Butanone	ND	10									
2-Chloroethyl vinyl ether	ND	1.0									
2-Chlorotoluene	ND	1.0									
4-Chlorotoluene	ND	1.0									
4-Isopropyltoluene	ND	1.0									
4-Methyl-2-pentanone	ND	10									
Acetone	ND	10									
Acrolein	ND	20									
Acrylonitrile	ND	20									
Benzene	ND	1.0									
Bromobenzene	ND	1.0									
Bromochloromethane	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216MB2	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82565						
Client ID: PBW	Batch ID: D11VW185	TestNo: EPA 8260B		Analysis Date: 12/16/2011	SeqNo: 1338124						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-Dichloropropene	ND	1.0									
Dibromochloromethane	ND	1.0									
Dibromomethane	ND	1.0									
Dichlorodifluoromethane	ND	1.0									
Ethylbenzene	ND	1.0									
Freon-113	ND	1.0									
Hexachlorobutadiene	ND	1.0									
Isopropylbenzene	ND	1.0									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	2.0									
MTBE	ND	1.0									
n-Butylbenzene	ND	1.0									
n-Propylbenzene	ND	1.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
sec-Butylbenzene	ND	1.0									
Styrene	ND	1.0									
tert-Butylbenzene	ND	1.0									
Tetrachloroethene	ND	1.0									
Toluene	ND	2.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-Dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111216MB2	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82565
Client ID: PBW	Batch ID: D11VW185	TestNo: EPA 8260B		Analysis Date: 12/16/2011	SeqNo: 1338124
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Trichlorofluoromethane	ND	1.0			
Vinyl chloride	ND	1.0			
Xylenes, Total	ND	2.0			
Surr: 1,2-Dichloroethane-d4	21.470		25.00		85.9
Surr: 4-Bromofluorobenzene	24.730		25.00		98.9
Surr: Dibromofluoromethane	23.060		25.00		92.2
Surr: Toluene-d8	25.860		25.00		103
				72	119
				76	119
				85	115
				81	120

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111220LCS2	SampType: LCS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82722			
Client ID: LCSW	Batch ID: D11VW189	TestNo: EPA 8260B			Analysis Date: 12/20/2011			SeqNo: 1342337			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	21.090	1.0	20.00	0	105	70	130				
Surrogate: 1,2-Dichloroethane-d4	26.660		25.00		107	72	119				
Surrogate: 4-Bromofluorobenzene	25.210		25.00		101	76	119				
Surrogate: Dibromofluoromethane	26.690		25.00		107	85	115				
Surrogate: Toluene-d8	25.210		25.00		101	81	120				
Sample ID: N007011-005AMS	SampType: MS	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82722			
Client ID: ZZZZZZ	Batch ID: D11VW189	TestNo: EPA 8260B			Analysis Date: 12/20/2011			SeqNo: 1342338			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	16.810	1.0	20.00	0	84.0	70	130				
Surrogate: 1,2-Dichloroethane-d4	22.660		25.00		90.6	72	119				
Surrogate: 4-Bromofluorobenzene	24.660		25.00		98.6	76	119				
Surrogate: Dibromofluoromethane	24.990		25.00		100	85	115				
Surrogate: Toluene-d8	24.250		25.00		97.0	81	120				
Sample ID: N007011-005AMSD	SampType: MSD	TestCode: 8260_WP_SF Units: µg/L			Prep Date:			RunNo: 82722			
Client ID: ZZZZZZ	Batch ID: D11VW189	TestNo: EPA 8260B			Analysis Date: 12/20/2011			SeqNo: 1342339			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chloroethyl vinyl ether	17.880	1.0	20.00	0	89.4	70	130	16.81	6.17	20	
Surrogate: 1,2-Dichloroethane-d4	23.080		25.00		92.3	72	119				0
Surrogate: 4-Bromofluorobenzene	25.120		25.00		100	76	119				0
Surrogate: Dibromofluoromethane	24.700		25.00		98.8	85	115				0
Surrogate: Toluene-d8	24.730		25.00		98.9	81	120				0

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP\_SFPP

Sample ID: D111220MB4	SampType: MBLK	TestCode: 8260_WP_SF	Units: µg/L	Prep Date:	RunNo: 82722
Client ID: PBW	Batch ID: D11VW189	TestNo: EPA 8260B		Analysis Date: 12/20/2011	SeqNo: 1342340
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
2-Chloroethyl vinyl ether	ND	1.0			
Surr: 1,2-Dichloroethane-d4	27.320		25.00		109
Surr: 4-Bromofluorobenzene	25.020		25.00		100
Surr: Dibromofluoromethane	27.280		25.00		109
Surr: Toluene-d8	24.140		25.00		96.6
				LowLimit	HighLimit
				85	115
				81	120
				RPD Ref Val	
					%RPD
					RPDLimit
					Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: LCS-38598	SampType: LCS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: LCSW	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338576			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	42.530	10	100.0	0	42.5	37	120				
1,2-Dichlorobenzene	41.370	10	100.0	0	41.4	33	120				
1,2-Diphenylhydrazine	86.230	10	100.0	0	86.2	60	117				
1,3-Dichlorobenzene	38.310	10	100.0	0	38.3	32	120				
1,4-Dichlorobenzene	40.030	10	100.0	0	40.0	32	120				
2,4,5-Trichlorophenol	70.360	10	100.0	0	70.4	49	120				
2,4,6-Trichlorophenol	67.380	10	100.0	0	67.4	49	126				
2,4-Dichlorophenol	59.740	10	100.0	0	59.7	48	120				
2,4-Dimethylphenol	59.670	10	100.0	0	59.7	28	120				
2,4-Dinitrophenol	56.920	50	100.0	0	56.9	25	130				
2,4-Dinitrotoluene	65.940	10	100.0	0	65.9	51	120				
2,6-Dinitrotoluene	62.130	10	100.0	0	62.1	49	120				
2-Chloronaphthalene	51.350	10	100.0	0	51.4	49	120				
2-Chlorophenol	53.850	10	100.0	0	53.8	37	120				
2-Methylnaphthalene	46.900	10	100.0	0	46.9	46	120				
2-Methylphenol	59.300	10	100.0	0	59.3	38	120				
2-Nitroaniline	87.660	50	100.0	0	87.7	48	120				
2-Nitrophenol	56.450	10	100.0	0	56.5	39	123				
3,3'-Dichlorobenzidine	213.030	20	200.0	0	107	20	120				
3-Nitroaniline	74.770	50	100.0	0	74.8	20	126				
4,6-Dinitro-2-methylphenol	71.370	50	100.0	0	71.4	40	130				
4-Bromophenyl-phenylether	91.180	10	100.0	0	91.2	52	120				
4-Chloro-3-methylphenol	71.720	50	100.0	0	71.7	47	120				
4-Chloroaniline	74.000	20	100.0	0	74.0	20	120				
4-Chlorophenyl-phenylether	80.070	10	100.0	0	80.1	50	120				
4-Methylphenol	59.030	10	100.0	0	59.0	32	120				
4-Nitroaniline	81.100	20	100.0	0	81.1	36	120				
4-Nitrophenol	66.500	50	100.0	0	66.5	20	120				
Acenaphthene	73.140	10	100.0	0	73.1	47	120				
Acenaphthylene	76.510	10	100.0	0	76.5	50	120				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: LCS-38598	SampType: LCS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: LCSW	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338576			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	90.660	10	100.0	0	90.7	54	120				
Benzidine (M)	46.340	50	200.0	0	23.2	10	162				J
Benzo(a)anthracene	94.150	10	100.0	0	94.2	56	100				
Benzo(a)pyrene	97.060	10	100.0	0	97.1	53	120				
Benzo(b)fluoranthene	97.400	10	100.0	0	97.4	45	124				
Benzo(g,h,i)perylene	97.250	10	100.0	0	97.2	38	123				
Benzo(k)fluoranthene	99.470	10	100.0	0	99.5	45	124				
Benzoic acid	32.010	50	100.0	0	32.0	20	120				J
Benzyl alcohol	42.140	20	100.0	0	42.1	30	120				
Bis(2-chloroethoxy)methane	67.550	10	100.0	0	67.6	46	120				
Bis(2-chloroethyl)ether	59.390	10	100.0	0	59.4	37	120				
Bis(2-chloroisopropyl)ether	64.990	10	100.0	0	65.0	26	131				
Bis(2-ethylhexyl)phthalate	100.120	10	100.0	0	100	42	126				
Butylbenzylphthalate	96.450	10	100.0	0	96.4	46	120				
Chrysene	96.770	10	100.0	0	96.8	55	120				
Di-n-butylphthalate	102.570	10	100.0	0	103	54	120				
Di-n-octylphthalate	108.590	10	100.0	0	109	37	137				
Dibenz(a,h)anthracene	104.150	10	100.0	0	104	42	127				
Dibenzofuran	57.370	10	100.0	0	57.4	54	120				
Diethylphthalate	106.540	10	100.0	0	107	41	120				
Dimethylphthalate	90.900	10	100.0	0	90.9	25	127				
Fluoranthene	99.890	10	100.0	0	99.9	54	120				
Fluorene	85.240	10	100.0	0	85.2	50	120				
Hexachlorobenzene	59.490	10	100.0	0	59.5	52	120				
Hexachlorobutadiene	47.490	20	100.0	0	47.5	27	120				
Hexachlorocyclopentadiene	34.020	10	100.0	0	34.0	51	108				S
Hexachloroethane	42.780	10	100.0	0	42.8	28	120				
Indeno(1,2,3-cd)pyrene	102.500	10	100.0	0	103	43	125				
Isophorone	58.920	10	100.0	0	58.9	50	120				
N-Nitrosodi-n-propylamine	68.410	10	100.0	0	68.4	34	128				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: LCS-38598	SampType: LCS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: LCSW	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338576			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
N-Nitrosodimethylamine	58.770	50	100.0	0	58.8	35	98				
N-Nitrosodiphenylamine	91.430	10	100.0	0	91.4	48	120				
Naphthalene	68.110	10	100.0	0	68.1	39	120				
Nitrobenzene	47.550	10	100.0	0	47.6	44	120				
Pentachlorophenol	61.770	50	100.0	0	61.8	38	120				
Phenanthrene	96.530	10	100.0	0	96.5	51	120				
Phenol	41.240	10	100.0	0	41.2	20	120				
Pyrene	96.870	10	100.0	0	96.9	49	128				
Surr: 1,2-Dichlorobenzene-d4	53.750		100.0		53.8	27	100				
Surr: 2,4,6-Tribromophenol	93.850		100.0		93.9	42	124				
Surr: 2-Chlorophenol-d4	63.800		100.0		63.8	34	98				
Surr: 2-Fluorobiphenyl	70.430		100.0		70.4	48	120				
Surr: 2-Fluorophenol	53.040		100.0		53.0	20	120				
Surr: 4-Terphenyl-d14	99.760		100.0		99.8	51	135				
Surr: Nitrobenzene-d5	69.730		100.0		69.7	41	120				
Surr: Phenol-d5	49.280		100.0		49.3	20	120				

Sample ID: N007012-001G-MS	SampType: MS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338577			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	35.500	11	106.4	0	33.4	37	120				S
1,2-Dichlorobenzene	33.287	11	106.4	0	31.3	33	120				S
1,2-Diphenylhydrazine	81.021	11	106.4	0	76.2	60	117				
1,3-Dichlorobenzene	31.457	11	106.4	0	29.6	32	120				S
1,4-Dichlorobenzene	32.457	11	106.4	0	30.5	32	120				S
2,4,5-Trichlorophenol	71.330	11	106.4	0	67.1	49	120				
2,4,6-Trichlorophenol	57.936	11	106.4	0	54.5	49	126				
2,4-Dichlorophenol	49.468	11	106.4	0	46.5	48	120				S
2,4-Dimethylphenol	49.585	11	106.4	0	46.6	28	120				

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: N007012-001G-MS	SampType: MS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338577			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrophenol	70.713	53	106.4	0	66.5	25	130				
2,4-Dinitrotoluene	68.202	11	106.4	0	64.1	51	120				
2,6-Dinitrotoluene	56.606	11	106.4	0	53.2	49	120				
2-Chloronaphthalene	41.691	11	106.4	0	39.2	49	120				S
2-Chlorophenol	45.106	11	106.4	0	42.4	37	120				
2-Methylnaphthalene	37.298	11	106.4	0	35.1	46	120				S
2-Methylphenol	48.745	11	106.4	0	45.8	38	120				
2-Nitroaniline	84.713	53	106.4	0	79.6	48	120				
2-Nitrophenol	45.628	11	106.4	0	42.9	39	123				
3,3'-Dichlorobenzidine	193.681	21	212.8	0	91.0	20	120				
3-Nitroaniline	71.723	53	106.4	0	67.4	20	126				
4,6-Dinitro-2-methylphenol	82.840	53	106.4	0	77.9	40	130				
4-Bromophenyl-phenylether	88.830	11	106.4	0	83.5	52	120				
4-Chloro-3-methylphenol	65.043	53	106.4	0	61.1	47	120				
4-Chloroaniline	65.809	21	106.4	0	61.9	20	120				
4-Chlorophenyl-phenylether	70.426	11	106.4	0	66.2	50	120				
4-Methylphenol	47.585	11	106.4	0	44.7	32	120				
4-Nitroaniline	82.755	21	106.4	0	77.8	36	120				
4-Nitrophenol	44.830	53	106.4	0	42.1	20	120				J
Acenaphthene	62.447	11	106.4	0	58.7	47	120				
Acenaphthylene	59.872	11	106.4	0	56.3	50	120				
Anthracene	90.085	11	106.4	0	84.7	54	120				
Benzidine (M)	30.532	53	212.8	0	14.4	10	162				J
Benzo(a)anthracene	92.383	11	106.4	0	86.8	56	100				
Benzo(a)pyrene	94.532	11	106.4	0	88.9	53	120				
Benzo(b)fluoranthene	90.277	11	106.4	0	84.9	45	124				
Benzo(g,h,i)perylene	101.840	11	106.4	0	95.7	38	123				
Benzo(k)fluoranthene	98.138	11	106.4	0	92.2	45	124				
Benzoic acid	40.096	53	106.4	0	37.7	20	120				J
Benzyl alcohol	33.149	21	106.4	6.196	25.3	30	120				S

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: N007012-001G-MS	SampType: MS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338577			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	52.947	11	106.4	0	49.8	46	120				
Bis(2-chloroethyl)ether	47.766	11	106.4	0	44.9	37	120				
Bis(2-chloroisopropyl)ether	52.723	11	106.4	0	49.6	26	131				
Bis(2-ethylhexyl)phthalate	104.819	11	106.4	0	98.5	42	126				
Butylbenzylphthalate	97.309	11	106.4	0	91.5	46	120				
Chrysene	96.532	11	106.4	0	90.7	55	120				
Di-n-butylphthalate	102.149	11	106.4	0	96.0	54	120				
Di-n-octylphthalate	119.702	11	106.4	0	113	37	137				
Dibenz(a,h)anthracene	111.160	11	106.4	0	104	42	127				
Dibenzofuran	50.117	11	106.4	0	47.1	54	120				S
Diethylphthalate	108.213	11	106.4	6.938	95.2	41	120				
Dimethylphthalate	83.681	11	106.4	0	78.7	25	127				
Fluoranthene	91.915	11	106.4	0	86.4	54	120				
Fluorene	73.787	11	106.4	0	69.4	50	120				
Hexachlorobenzene	61.149	11	106.4	0	57.5	52	120				
Hexachlorobutadiene	38.532	21	106.4	0	36.2	27	120				
Hexachlorocyclopentadiene	28.266	11	106.4	0	26.6	51	108				S
Hexachloroethane	35.277	11	106.4	0	33.2	28	120				
Indeno(1,2,3-cd)pyrene	110.564	11	106.4	0	104	43	125				
Isophorone	47.851	11	106.4	0	45.0	50	120				S
N-Nitrosodi-n-propylamine	54.287	11	106.4	0	51.0	34	128				
N-Nitrosodimethylamine	45.255	53	106.4	0	42.5	35	98				J
N-Nitrosodiphenylamine	99.947	11	106.4	0	94.0	48	120				
Naphthalene	53.745	11	106.4	0	50.5	39	120				
Nitrobenzene	40.564	11	106.4	0	38.1	44	120				S
Pentachlorophenol	72.149	53	106.4	0	67.8	38	120				
Phenanthrene	96.404	11	106.4	0	90.6	51	120				
Phenol	31.266	11	106.4	0	29.4	20	120				
Pyrene	88.532	11	106.4	0	83.2	49	128				
Surr: 1,2-Dichlorobenzene-d4	42.170		106.4		39.6	27	100				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: N007012-001G-MS	SampType: MS	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338577			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sur: 2,4,6-Tribromophenol	95.628		106.4		89.9	42	124				
Sur: 2-Chlorophenol-d4	53.309		106.4		50.1	34	98				
Sur: 2-Fluorobiphenyl	56.511		106.4		53.1	48	120				
Sur: 2-Fluorophenol	40.691		106.4		38.3	20	120				
Sur: 4-Terphenyl-d14	104.628		106.4		98.4	51	135				
Sur: Nitrobenzene-d5	57.479		106.4		54.0	41	120				
Sur: Phenol-d5	36.479		106.4		34.3	20	120				
Sample ID: N007012-001G-MSD	SampType: MSD	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338578			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	37.032	11	106.4	0	34.8	37	120	35.50	4.22	20	S
1,2-Dichlorobenzene	35.138	11	106.4	0	33.0	33	120	33.29	5.41	20	
1,2-Diphenylhydrazine	80.957	11	106.4	0	76.1	60	117	81.02	0.0788	20	
1,3-Dichlorobenzene	33.064	11	106.4	0	31.1	32	120	31.46	4.98	20	S
1,4-Dichlorobenzene	34.532	11	106.4	0	32.5	32	120	32.46	6.19	20	
2,4,5-Trichlorophenol	68.628	11	106.4	0	64.5	49	120	71.33	3.86	20	
2,4,6-Trichlorophenol	57.245	11	106.4	0	53.8	49	126	57.94	1.20	20	
2,4-Dichlorophenol	49.457	11	106.4	0	46.5	48	120	49.47	0.0215	20	S
2,4-Dimethylphenol	50.404	11	106.4	0	47.4	28	120	49.59	1.64	20	
2,4-Dinitrophenol	74.234	53	106.4	0	69.8	25	130	70.71	4.86	20	
2,4-Dinitrotoluene	70.351	11	106.4	0	66.1	51	120	68.20	3.10	20	
2,6-Dinitrotoluene	57.862	11	106.4	0	54.4	49	120	56.61	2.19	20	
2-Chloronaphthalene	42.096	11	106.4	0	39.6	49	120	41.69	0.965	20	S
2-Chlorophenol	46.372	11	106.4	0	43.6	37	120	45.11	2.77	20	
2-Methylnaphthalene	37.723	11	106.4	0	35.5	46	120	37.30	1.13	20	S
2-Methylphenol	48.521	11	106.4	0	45.6	38	120	48.74	0.459	20	
2-Nitroaniline	85.777	53	106.4	0	80.6	48	120	84.71	1.25	20	
2-Nitrophenol	46.298	11	106.4	0	43.5	39	123	45.63	1.46	20	

**Qualifiers:**

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8270\_W\_PGE**

Sample ID: N007012-001G-MSD SampType: MSD		TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C		EPA 3510C	Analysis Date: 12/14/2011			SeqNo: 1338578			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
3,3'-Dichlorobenzidine	175.543	21	212.8	0	82.5	20	120	193.7	9.83	20	
3-Nitroaniline	72.404	53	106.4	0	68.1	20	126	71.72	0.945	20	
4,6-Dinitro-2-methylphenol	83.585	53	106.4	0	78.6	40	130	82.84	0.895	20	
4-Bromophenyl-phenylether	93.681	11	106.4	0	88.1	52	120	88.83	5.32	20	
4-Chloro-3-methylphenol	65.500	53	106.4	0	61.6	47	120	65.04	0.701	20	
4-Chloroaniline	64.479	21	106.4	0	60.6	20	120	65.81	2.04	20	
4-Chlorophenyl-phenylether	70.926	11	106.4	0	66.7	50	120	70.43	0.707	20	
4-Methylphenol	49.085	11	106.4	0	46.1	32	120	47.59	3.10	20	
4-Nitroaniline	82.043	21	106.4	0	77.1	36	120	82.76	0.865	20	
4-Nitrophenol	45.766	53	106.4	0	43.0	20	120	44.83	0	20	J
Acenaphthene	62.936	11	106.4	0	59.2	47	120	62.45	0.781	20	
Acenaphthylene	59.862	11	106.4	0	56.3	50	120	59.87	0.0178	20	
Anthracene	94.511	11	106.4	0	88.8	54	120	90.09	4.79	20	
Benzidine (M)	8.532	53	212.8	0	4.01	10	162	30.53	0	20	JS
Benzo(a)anthracene	98.447	11	106.4	0	92.5	56	100	92.38	6.36	20	
Benzo(a)pyrene	94.734	11	106.4	0	89.1	53	120	94.53	0.214	20	
Benzo(b)fluoranthene	88.266	11	106.4	0	83.0	45	124	90.28	2.25	20	
Benzo(g,h,i)perylene	103.074	11	106.4	0	96.9	38	123	101.8	1.20	20	
Benzo(k)fluoranthene	99.404	11	106.4	0	93.4	45	124	98.14	1.28	20	
Benzoic acid	36.638	53	106.4	0	34.4	20	120	40.10	0	20	J
Benzyl alcohol	33.894	21	106.4	6.196	26.0	30	120	33.15	2.22	20	S
Bis(2-chloroethoxy)methane	54.181	11	106.4	0	50.9	46	120	52.95	2.30	20	
Bis(2-chloroethyl)ether	56.096	11	106.4	0	52.7	37	120	47.77	16.0	20	
Bis(2-chloroisopropyl)ether	55.713	11	106.4	0	52.4	26	131	52.72	5.51	20	
Bis(2-ethylhexyl)phthalate	111.011	11	106.4	0	104	42	126	104.8	5.74	20	
Butylbenzylphthalate	108.372	11	106.4	0	102	46	120	97.31	10.8	20	
Chrysene	103.287	11	106.4	0	97.1	55	120	96.53	6.76	20	
Di-n-butylphthalate	109.851	11	106.4	0	103	54	120	102.1	7.27	20	
Di-n-octylphthalate	119.723	11	106.4	0	113	37	137	119.7	0.0178	20	
Dibenz(a,h)anthracene	112.043	11	106.4	0	105	42	127	111.2	0.791	20	

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8270\_W\_PGE**

Sample ID: N007012-001G-MSD SampType: MSD		TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: ZZZZZZ	Batch ID: 38598	TestNo: EPA 8270C		EPA 3510C	Analysis Date: 12/14/2011			SeqNo: 1338578			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibenzofuran	50.777	11	106.4	0	47.7	54	120	50.12	1.31	20	S
Diethylphthalate	112.862	11	106.4	6.938	99.6	41	120	108.2	4.21	20	
Dimethylphthalate	85.457	11	106.4	0	80.3	25	127	83.68	2.10	20	
Fluoranthene	96.798	11	106.4	0	91.0	54	120	91.91	5.18	20	
Fluorene	74.915	11	106.4	0	70.4	50	120	73.79	1.52	20	
Hexachlorobenzene	63.766	11	106.4	0	59.9	52	120	61.15	4.19	20	
Hexachlorobutadiene	39.989	21	106.4	0	37.6	27	120	38.53	3.71	20	
Hexachlorocyclopentadiene	28.617	11	106.4	0	26.9	51	108	28.27	1.23	20	S
Hexachloroethane	36.213	11	106.4	0	34.0	28	120	35.28	2.62	20	
Indeno(1,2,3-cd)pyrene	110.926	11	106.4	0	104	43	125	110.6	0.327	20	
Isophorone	47.606	11	106.4	0	44.8	50	120	47.85	0.513	20	S
N-Nitrosodi-n-propylamine	56.372	11	106.4	0	53.0	34	128	54.29	3.77	20	
N-Nitrosodimethylamine	47.617	53	106.4	0	44.8	35	98	45.26	0	20	J
N-Nitrosodiphenylamine	106.128	11	106.4	0	99.8	48	120	99.95	6.00	20	
Naphthalene	56.053	11	106.4	0	52.7	39	120	53.74	4.21	20	
Nitrobenzene	41.957	11	106.4	0	39.4	44	120	40.56	3.38	20	S
Pentachlorophenol	73.213	53	106.4	0	68.8	38	120	72.15	1.46	20	
Phenanthrene	101.574	11	106.4	0	95.5	51	120	96.40	5.22	20	
Phenol	31.904	11	106.4	0	30.0	20	120	31.27	2.02	20	
Pyrene	97.032	11	106.4	0	91.2	49	128	88.53	9.16	20	
Surr: 1,2-Dichlorobenzene-d4	42.734		106.4		40.2	27	100		0		
Surr: 2,4,6-Tribromophenol	94.255		106.4		88.6	42	124		0		
Surr: 2-Chlorophenol-d4	52.830		106.4		49.7	34	98		0		
Surr: 2-Fluorobiphenyl	53.585		106.4		50.4	48	120		0		
Surr: 2-Fluorophenol	40.489		106.4		38.1	20	120		0		
Surr: 4-Terphenyl-d14	109.585		106.4		103	51	135		0		
Surr: Nitrobenzene-d5	58.000		106.4		54.5	41	120		0		
Surr: Phenol-d5	35.787		106.4		33.6	20	120		0		

### Qualifiers:

B Analyte detected in the associated Method Blank  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range  
ND Not Detected at the Reporting Limit  
DO Surrogate Diluted Out

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: MB-38598	SampType: MBLK	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: PBW	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338579			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	10									
1,2-Dichlorobenzene	ND	10									
1,2-Diphenylhydrazine	ND	10									
1,3-Dichlorobenzene	ND	10									
1,4-Dichlorobenzene	ND	10									
2,4,5-Trichlorophenol	ND	10									
2,4,6-Trichlorophenol	ND	10									
2,4-Dichlorophenol	ND	10									
2,4-Dimethylphenol	ND	10									
2,4-Dinitrophenol	ND	50									
2,4-Dinitrotoluene	ND	10									
2,6-Dinitrotoluene	ND	10									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	10									
2-Methylnaphthalene	ND	10									
2-Methylphenol	ND	10									
2-Nitroaniline	ND	50									
2-Nitrophenol	ND	10									
3,3'-Dichlorobenzidine	ND	20									
3-Nitroaniline	ND	50									
4,6-Dinitro-2-methylphenol	ND	50									
4-Bromophenyl-phenylether	ND	10									
4-Chloro-3-methylphenol	ND	50									
4-Chloroaniline	ND	20									
4-Chlorophenyl-phenylether	ND	10									
4-Methylphenol	ND	10									
4-Nitroaniline	ND	20									
4-Nitrophenol	ND	50									
Acenaphthene	ND	10									
Acenaphthylene	ND	10									

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: MB-38598	SampType: MBLK	TestCode: 8270_W_PGE Units: µg/L			Prep Date: 12/14/2011			RunNo: 82583			
Client ID: PBW	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C			Analysis Date: 12/14/2011			SeqNo: 1338579			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	ND	10									
Benzidine (M)	ND	50									
Benzo(a)anthracene	ND	10									
Benzo(a)pyrene	ND	10									
Benzo(b)fluoranthene	ND	10									
Benzo(g,h,i)perylene	ND	10									
Benzo(k)fluoranthene	ND	10									
Benzoic acid	ND	50									
Benzyl alcohol	ND	20									
Bis(2-chloroethoxy)methane	ND	10									
Bis(2-chloroethyl)ether	ND	10									
Bis(2-chloroisopropyl)ether	ND	10									
Bis(2-ethylhexyl)phthalate	ND	10									
Butylbenzylphthalate	ND	10									
Chrysene	ND	10									
Di-n-butylphthalate	ND	10									
Di-n-octylphthalate	ND	10									
Dibenz(a,h)anthracene	ND	10									
Dibenzofuran	ND	10									
Diethylphthalate	ND	10									
Dimethylphthalate	ND	10									
Fluoranthene	ND	10									
Fluorene	ND	10									
Hexachlorobenzene	ND	10									
Hexachlorobutadiene	ND	20									
Hexachlorocyclopentadiene	ND	10									
Hexachloroethane	ND	10									
Indeno(1,2,3-cd)pyrene	ND	10									
Isophorone	ND	10									
N-Nitrosodi-n-propylamine	ND	10									

**Qualifiers:**

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

**CLIENT:** CH2M HILL  
**Work Order:** N007012  
**Project:** SFPP - Norwalk Site

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8270\_W\_PGE

Sample ID: MB-38598	SampType: MBLK	TestCode: 8270_W_PGE Units: µg/L		Prep Date: 12/14/2011		RunNo: 82583					
Client ID: PBW	Batch ID: 38598	TestNo: EPA 8270C EPA 3510C		Analysis Date: 12/14/2011		SeqNo: 1338579					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
N-Nitrosodimethylamine	ND	50									
N-Nitrosodiphenylamine	ND	10									
Naphthalene	ND	10									
Nitrobenzene	ND	10									
Pentachlorophenol	ND	50									
Phenanthrene	ND	10									
Phenol	ND	10									
Pyrene	ND	10									
Surr: 1,2-Dichlorobenzene-d4	56.010		100.0		56.0	27	100				
Surr: 2,4,6-Tribromophenol	76.690		100.0		76.7	42	124				
Surr: 2-Chlorophenol-d4	69.400		100.0		69.4	34	98				
Surr: 2-Fluorobiphenyl	65.620		100.0		65.6	48	120				
Surr: 2-Fluorophenol	58.570		100.0		58.6	20	120				
Surr: 4-Terphenyl-d14	136.910		100.0		137	51	135				S
Surr: Nitrobenzene-d5	73.300		100.0		73.3	41	120				
Surr: Phenol-d5	48.470		100.0		48.5	20	120				

**Qualifiers:**

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike/Surrogate outside of limits due to matrix interference

DO Surrogate Diluted Out

Calculations are based on raw values



Advanced Technology Laboratories

3151 W. Post Road  
Las Vegas, NV 89118  
Tel: 702-307-2659 Fax: 702-307-2691  
**Marion Cartin** ([marion@att-labs.com](mailto:marion@att-labs.com))

**CHAIN OF CUSTODY RECORD**

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PAGE: 1

Revised: 04/27/2011

Advanced Technology Laboratories

3151 W. Post Road  
Las Vegas, NV 89111

Tel. 702-307-3659 Fax. 702-307-3691

e: 702-307-2659 Fax: 702-307-2691

Marlon Cartin (marlon@atl-labs.com)

CHAIN OF CUSTODY RECORD

DATE: 12/13/11  
PAGE: 1 OF 1

**Full Priority Pollutants List  
for Quarterly Chain of Custody**  
SFPP, L.P.  
Norwalk, California

Analyte	Analytical Method	Units	MDL	RL	ML <sup>1</sup>
2,3,7,8-TCDD	8290	µg/L	50	NE	
Arsenic	200.8	µg/L	0.0025	0.10	2
Lead	200.8	µg/L	0.021	0.5	0.5
Aroclor-1016	8082	µg/L	0.07	0.50	0.5
Aroclor-1221	8082	µg/L	0.23	1.0	0.5
Aroclor-1232	8082	µg/L	0.12	0.50	0.5
Aroclor-1242	8082	µg/L	0.13	0.50	0.5
Aroclor-1248	8082	µg/L	0.07	0.50	0.5
Aroclor-1254	8082	µg/L	0.07	0.50	0.5
Aroclor-1260	8082	µg/L	0.05	0.50	0.5
Cadmium	200.8	µg/L	0.02	0.25	0.25
Mercury	245.1, 7470A	µg/L	0.023	0.05	0.2
Antimony	200.8	µg/L	0.019	0.50	0.50
Beryllium	200.8	µg/L	0.009	0.50	0.50
Total Chromium	200.8	µg/L	0.008	0.50	0.50
Chromium (III) (Total Cr - Cr VI)	NA	µg/L	NA	NA	NA
Copper	200.8	µg/L	0.337	0.5	0.50
Nickel	200.8	µg/L	0.086	1.0	1
Selenium	200.8	µg/L	0.025	0.5	2
Silver	200.8	µg/L	0.005	0.25	0.25
Thallium	200.8	µg/L	0.043	0.5	1
Zinc	200.8	µg/L	0.162	10	1
Chromium (VI)	7199	µg/L	0.028	0.2	0.50
4,4'-DDD	8081 A	µg/L	0.014	0.050	0.05
4,4'-DDE	8081 A	µg/L	0.018	0.050	0.05
4,4'-DDT	8081 A	µg/L	0.019	0.050	0.01
Aldrin	8081 A	µg/L	0.01	0.025	0.005
Alpha Endosulfan	8081 A	µg/L	0.0100	0.025	0.02
Alpha-BHC	8081 A	µg/L	0.008	0.025	0.01
Beta Endosulfan	8081 A	µg/L	0.018	0.025	0.01
Beta-BHC	8081 A	µg/L	0.012	0.025	0.005
Chlordane	8081 A	µg/L	0.05	0.25	0.1
Delta-BHC	8081 A	µg/L	0.011	0.025	0.005
Dieldrin	8081 A	µg/L	0.014	0.050	0.01
Endosulfan Sulfate	8081 A	µg/L	0.015	0.050	0.05
Endrin	8081 A	µg/L	0.019	0.050	0.01
Endrin Aldehyde	8081 A	µg/L	0.015	0.050	0.01
Gamma-BHC	8081 A	µg/L	0.013	0.025	0.02
Heptachlor	8081 A	µg/L	0.011	0.025	0.01
Heptachlor Epoxide	8081 A	µg/L	0.015	0.025	0.01
Toxaphene	8081 A	µg/L	0.33	2.5	0.5
1,1,1-Trichloroethane	8260B	µg/L	0.068	1.0	2
1,1,2,2-Tetrachloroethane	8260B	µg/L	0.054	1.0	1
1,1,2-Trichloroethane	8260B	µg/L	0.083	1.0	2
1,1-Dichloroethane	8260B	µg/L	0.099	0.50	1
1,1-Dichloroethene	8260B	µg/L	0.094	1.00	2
1,2,4-Trichlorobenzene	8260B	µg/L	0.070	1.0	5
1,2-Dichlorobenzene	8260B	µg/L	0.085	1.0	2
1,2-Dichloroethane	8260B	µg/L	0.166	0.50	2

**Full Priority Pollutants List  
for Quarterly Chain of Custody**  
SFPP, L.P.  
Norwalk, California

Analyte	Analytical Method	Units	MDL	RL	ML <sup>1</sup>
1,2-Dichloropropane	8260B	µg/L	0.085	1.0	1
1,3-Dichlorobenzene	8260B	µg/L	0.090	1.0	1
1,4-Dichlorobenzene	8260B	µg/L	0.092	1.0	1
2-Chloroethyl Vinyl Ether	8260B	µg/L	0.144	1.0	1
Acrolein	8260B	µg/L	4.297	20	5
Acrylonitrile	8260B	µg/L	0.61	20	2
Benzene	8260B	µg/L	0.075	1.0	2
Bromodichloromethane	8260B	µg/L	0.063	1.0	2
Bromoform	8260B	µg/L	0.086	1.0	2
Bromomethane	8260B	µg/L	0.131	1	2
c-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	2
Carbon Tetrachloride	8260B	µg/L	0.10	1.0	2
Chlorobenzene	8260B	µg/L	0.092	1.0	2
Chloroethane	8260B	µg/L	0.141	1.0	2
Chloroform	8260B	µg/L	0.058	1.0	2
Chloromethane	8260B	µg/L	0.058	1.0	2
Dibromochloromethane	8260B	µg/L	0.061	1.0	2
Ethylbenzene	8260B	µg/L	0.1	1	2
Hexachloro-1,3-Butadiene	8260B	µg/L	0.2	1	1
Hexachlorobenzene	8270C	µg/L	3.9	10	1
Hexachloroethane	8270C	µg/L	4.73	10	1
Methylene Chloride	8260B	µg/L	0.11	2.0	2
Naphthalene	8260B	µg/L	0.056	1	1
t-1,2-Dichloroethene	8260B	µg/L	0.094	1.0	1
t-1,3-Dichloropropene	8260B	µg/L	0.10	1.0	2
Tetrachloroethene	8260B	µg/L	0.13	1.0	2
Toluene	8260B	µg/L	0.118	2.0	2
Trichloroethene	8260B	µg/L	0.060	1.0	2
Vinyl Chloride	8260B	µg/L	0.117	1.0	2
1,2-Diphenylhydrazine	8270 C	µg/L	3.64	10	1
2,4,6-Trichlorophenol	8270 C	µg/L	4.48	10	10
2,4-Dichlorophenol	8270 C	µg/L	4.28	10	5
2,4-Dimethylphenol	8270 C	µg/L	3.63	10	2
2,4-Dinitrophenol	8270 C	µg/L	3.33	10	5
2,4-Dinitrotoluene	8270 C	µg/L	3.8	10	5
2,6-Dinitrotoluene	8270 C	µg/L	4.0	10	5
2-Chloronaphthalene	8270 C	µg/L	4.0	10	10
2-Chlorophenol	8270 C	µg/L	3.7	10	5
2-Nitrophenol	8270 C	µg/L	4.72	10	10
3,3'-Dichlorobenzidine	8270 C	µg/L	3.59	20	5
4,6-Dinitro-2-Methylphenol	8270 C	µg/L	2.87	50	5
4-Bromophenyl-Phenyl Ether	8270 C	µg/L	3.93	10	5
4-Chloro-3-Methylphenol	8270 C	µg/L	3.45	50	1
4-Chlorophenyl-Phenyl Ether	8270 C	µg/L	3.93	10	5
4-Nitrophenol	8270 C	µg/L	1.54	50	10
Acenaphthene	8270 C	µg/L	4.22	10	1
Acenaphthylene	8270 C	µg/L	4.87	10	10
Anthracene	8270 C	µg/L	3.73	10	10
Benzidine	8270 C	µg/L	2.33	50	5

**Full Priority Pollutants List  
for Quarterly Chain of Custody**  
SFPP, L.P.  
Norwalk, California

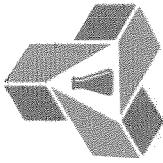
Analyte	Analytical Method	Units	MDL	RL	ML <sup>1</sup>
Benzo (a) Anthracene	8270 C	µg/L	5.18	10	5
Benzo (a) Pyrene	8270 C	µg/L	5.5	10	10
Benzo (b) Fluoranthene	8270 C	µg/L	5.65	10	10
Benzo (g,h,i) Perylene	8270 C	µg/L	5.83	10	5
Benzo (k) Fluoranthene	8270 C	µg/L	5.39	10	10
Bis(2-Chloroethoxy) Methane	8270 C	µg/L	4.6	10	5
Bis(2-Chloroethyl) Ether	8270 C	µg/L	5.5	10	1
Bis(2-Chloroisopropyl) Ether	8270 C	µg/L	4.32	10	2
Bis(2-Ethylhexyl) Phthalate	8270 C	µg/L	2.7	10	5
Butyl Benzyl Phthalate	8270 C	µg/L	3.4	10	10
Chrysene	8270 C	µg/L	2.32	10	10
Dibenz (a,h) Anthracene	8270 C	µg/L	5.65	10	10
Diethyl Phthalate	8270 C	µg/L	3.27	10	2
Dimethyl Phthalate	8270 C	µg/L	3.68	10	2
Di-n-Butyl Phthalate	8270 C	µg/L	3.0	10	10
Di-n-Octyl Phthalate	8270 C	µg/L	3.0	10	10
Fluoranthene	8270 C	µg/L	3.14	10	1
Fluorene	8270 C	µg/L	3.62	10	10
Hexachlorocyclopentadiene	8270 C	µg/L	5.03	20	5
Indeno (1,2,3-c,d) Pyrene	8270 C	µg/L	5.62	10	10
Isophorone	8270 C	µg/L	4.38	10	1
Nitrobenzene	8270 C	µg/L	4.65	10	1
N-Nitrosodimethylamine	8270 C	µg/L	3.07	50	5
N-Nitroso-di-n-propylamine	8270 C	µg/L	5.09	10	5
N-Nitrosodiphenylamine	8270 C	µg/L	4.0	10	1
Pentachlorophenol	8270 C	µg/L	3.0	50	5
Phenanthrene	8270 C	µg/L	2.95	50	5
Phenol	8270 C	µg/L	1.54	10	1
Pyrene	8270 C	µg/L	3.2	10	10
Cyanide (Total)	SM 4500 CN-E, EPA 9014	mg/L	0.0049	0.010	NE
Asbestos	EPA/600/R-93/116(PCM)	MFL			NE

**Notes**

1. State Water Resources Control Board Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

**Abbreviations**

- DNQ = detected, but not quantified. Result is greater than or equal to the laboratory MDL but less than the ML (or RL if no ML is listed)
- MDL = laboratory method detection limit
- ML = minimum level
- mg/L = milligrams per liter
- µg/L = micrograms per liter
- ND = not-detected above the MDL listed
- NE = not established
- MFL = millions of fibers per liter
- pg/L = picograms per liter.
- RL = laboratory reporting limit



## Advanced Technology Laboratories

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

[www.atglglobal.com](http://www.atglglobal.com)

TEL: 7023072659

FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

QC Level: RTNE

Subcontractor:

EMS Laboratories  
117 W. Bellevue Dr.  
Pasadena, CA 91105

TEL: (626) 568-4065

FAX:

Acct #:

14-Dec-11

Field Sampler: JANET DYE

Requested Tests

Sample ID	Matrix	Date Collected	Bottle Type	Asb_TEM	
N007012-0011 / UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	32CZP	1	

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

Please use PO#: N007012

Please fax results by: Normal TAT

Please analyze for Asbestos by EPA 100.1.

Date/Time

Date/Time

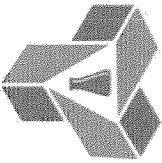
Relinquished by: ✓

Received by: ✓

Received by: ✓

Date/Time

Date/Time



## Advanced Technology Laboratories

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

[www.atlglobal.com](http://www.atlglobal.com)

TEL: 7023072659

FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

### Subcontractor:

APPL, Inc.  
908 N. Temperance Ave.  
Clovis, CA 93611

TEL: (209) 275-4422  
FAX: (209) 275-4422  
Acct #: 14-Dec-11

QC Level: RTNE

Field Sampler: JANES DYE

Requested Tests				
Sample ID	Matrix	Date Collected	Bottle Type	EPA 8290
N007012-001B / UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	32CZP	1

General Comments:

Please email sample receipt acknowledgement to the PM.

Please use PO#: N007012

Please fax results by: Normal TAT

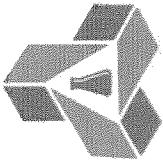
Please analyze for TCDD Equivalents with 17 Congeners and TEQ.

Relinquished by: <u>                        </u>	Date/Time <u>                        </u>	Date/Time <u>                        </u>
Received by: <u>                        </u>	Received by: <u>                        </u>	Received by: <u>                        </u>

18°C  
17°C

<b>OnTrac</b> <small>On-Time Delivery For Less</small>		800-334-5000 <i>Call For A Pickup!</i>	
<b>FROM (Company)</b> Street Address 123 Main Street City State Zip Code (Required) Phone Number			
<b>TO (Company) WE CANNOT DELIVER TO A P.O. BOX</b> Street Address Suite # City State Zip Code (Required) Phone Number recipient's Name			
<b>PLEASE PRINT IN BLOCK LETTERS with Blue / Black Ink</b>			
<b>Service Options</b> <small>No box checked, Standard Service will be applied. Minimum charge weight is 30 lbs. Delivery by 3:00 P.M. Note: delivery times in some areas may be later in some areas. Check service quote or visit our website for details.</small>			
<input type="checkbox"/> <b>SUNRISE - BY 10:30 AM*</b> <input type="checkbox"/> <b>SUNRISE GOLD - BY 8:00 AM*</b> <input type="checkbox"/> <b>HEAVYWEIGHT**</b> <input type="checkbox"/> <b>Saturday Delivery - Extra Charge</b> <small>(see Service Guide for details)</small> <input type="checkbox"/> <b>HOLD FOR PICKUP</b> <small>This shipment requires a delivery signature</small> Declared Value \$ <input type="text"/> <small>(maximum \$25,000)</small>			
<input type="checkbox"/> <b>Billing</b> <small>If none is selected, shipper will be invoiced.</small> <input type="checkbox"/> Bill Shipper's Account <input type="checkbox"/> Bill Other Acct # <input type="text"/>			
<input type="checkbox"/> <b>Information</b> <small>(Subject to verification)</small> Weight lbs. <input type="text"/> <small>L in. X W in. X H in.</small> <small>+225 = <input type="text"/></small>			
<input type="checkbox"/> <b>Weight</b> <small>Dim weight charge if greater than actual weight</small> <input type="checkbox"/> <b>C.O.D. Amount \$ <input type="text"/> Limit \$10,000</b> <small>(attach C.O.D. bag to package)</small> <input type="checkbox"/> <b>Secured Payment</b> <small>(Money Order or Certified Check)</small> <input type="checkbox"/> <b>Unsecured Payment</b> <small>(Company Check or Personal Check)</small>			
Driver # <input type="text"/> <small>Pick-up time <input type="text"/> Shipper's Signature</small> Shipper's Ref. # <input type="text"/> Driver's Initials <input type="text"/>			





## Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659      FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

### Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

### QC Level:

RTNE

Field Sampler: JAMES DYE  
Acct #: 13-Dec-11

Requested Tests				
Sample ID	Matrix	Date Collected	Bottle Type	SM4500-CNE
N007012-001H / UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	16CZP	1

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

Please use PO#: N007012

Please fax results by: Normal TAT

Relinquished by: <u>✓</u>	Date/Time <u>12/13/11 @ 1830</u>	Received by: _____
Relinquished by: _____	Date/Time _____	Received by: _____

# Advanced Technology Laboratories, Inc.

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

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

## Sample Receipt Checklist

Cooler Received/Opened On: 12/14/2011 Workorder: N007012  
Rep sample Temp (Deg C): 1.2, 1.8 IR Gun ID: 2  
Temp Blank:  Yes  No  
Carrier name: OnTrac  
Last 4 digits of Tracking No.: 9124 Packing Material Used: Bubble Wrap  
Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

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



December 28, 2011



Marlon Cartin  
Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas, NV 89118  
Tel: (702) 307-2659  
Fax:(702) 307-2691

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003

Re: ATL Work Order Number : 1100668

Client Reference : [none]

Enclosed are the results for sample(s) received on December 13, 2011 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie Rodriguez".

Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/28/2011

#### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N007012-001H / UCC-12132011	1100668-01	Waste Water	12/13/11 12:30	12/13/11 18:35



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/28/2011

**Client Sample ID N007012-001H / UCC-12132011**

**Lab ID: 1100668-01**

**Cyanide, Total by SM4500-CN E**

**Analyst: AG**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Cyanide, Total	ND	0.01	0.006	1	B1L0829	12/22/2011	12/23/11 08:53	

**QUALITY CONTROL SECTION**

**Cyanide, Total by SM4500-CN E - Quality Control**

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	----------------	-----------------	------------	--------------	-------

**Batch B1L0829 - Prep\_WC\_3\_W**

**Blank (B1L0829-BLK1)** Prepared: 12/22/2011 Analyzed: 12/23/2011

Cyanide, Total ND 0.01 NR

**LCS (B1L0829-BS1)** Prepared: 12/22/2011 Analyzed: 12/23/2011

Cyanide, Total 0.4 0.01 0.400 106 80 - 120

**Matrix Spike (B1L0829-MS1)** Prepared: 12/22/2011 Analyzed: 12/23/2011

Cyanide, Total 0.4 0.01 0.400 ND 106 80 - 120

**Matrix Spike Dup (B1L0829-MSD1)** Prepared: 12/22/2011 Analyzed: 12/23/2011

Cyanide, Total 0.4 0.01 0.400 ND 106 80 - 120 0 20



Advanced Technology Laboratory-Las Vegas  
3151 W Post Rd.  
Las Vegas , NV 89118

Project Number : -  
Report To : Marlon Cartin  
Reported : 12/28/2011

### Notes and Definitions

ND Analyte not detected at or above reporting limit

PQL Practical Quantitation Limit

MDL Method Detection Limit

NR Not Reported

RPD Relative Percent Difference

CA1 CA-NELAP (CDPH)

CA2 CA-ELAP (CDPH)

OR1 OR-NELAP (OSPHL)

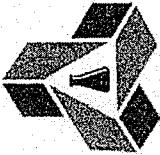
TX1 TX-NELAP (TCEQ)

# Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

## Subcontractor:

Advanced Technology Laboratories - Signal Hill  
3283 Walnut Ave.  
Signal Hill, California

QC Level: RTNE

Field Sampler: JAMES DYE

13-Dec-11

Requested Tests					
Sample ID	Matrix	Date Collected	Bottle Type	SM4500-CN E	
-01 N007012-001H / UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	16OZP	1	

General Comments:

Please email sample receipt acknowledgement to the PM.

Please use PO#: N007012

Please fax results by: Normal TAT

Date/Time	Received by:
12/13/11 @ 1830	C. Andre
12/13/11 @ 1830	Received by:

DATE: December 28, 2011  
CUSTOMER: Advanced Technology Laboratories  
3151-3153 W Post Rd  
Las Vegas, NV 89118  
ATTENTION: Marlon Cartin  
REPORT NO: 148509  
REFERENCE: PO# N007012  
DATE RECEIVED: December 15, 2011 at 1410  
DATE ANALYZED: December 27, 2011  
SUBJECT: ANALYSIS OF WATER SAMPLES FOR ASBESTOS BY TEM  
ACCREDITATION: California Dept. of Health Services ELAP 1119

The sample was prepared and analyzed according to EPA 600 94 134, 100.1.

The date and times of collection, ozonation and filtration are as follows:

<u>Sample</u>	<u>Date/Time of Collection</u>	<u>Date/Time of Ozonation</u>	<u>Date/Time of Filtration</u>
N007012-002/UCC-12132011	12/13/11 AT 1230	12/15/11 1430 - 1730	12/15/11 at 1800

The results of the analysis and the detection limit(s) are summarized on the following page(s), accompanied by the chain of custody.

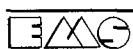
Respectfully submitted,  
EMS Laboratories, Inc.



B.M. Kolk  
Laboratory Director  
BMK/am

*Note: The report shall not be reproduced, except in full without the written approval of EMS Laboratories, Inc.*

*Note: The results of the analysis are based upon the sample submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples. All the analytical quality control data meet the requirement of the procedure unless otherwise indicated. Any deviation or exclusion from the test method is noted in this cover letter. Unless otherwise noted in this cover letter the samples were received properly packaged, clearly identified and intact.*



EMS LABORATORIES

117 West Bellevue Drive / Pasadena CA 91105-2548 / 626-568-4065

**ANALYSIS OF WATER BY TEM ( EPA-600/4-83-043 )    EPA 100.1**

LAB NO: 148509  
CLIENT: ATL  
DATE: 12/27/2011

## INDIVIDUAL ANALYTICAL RESULTS

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

Bm Kole  
Authorized Signature

NA Not Applicable  
ND None Detected  
PC Polycarbonate Filter  
GO Grid Openings  
MFL Million Fibers per Liter  
Fib Fibers

TEM-6A (2011 Rev)

148509



## Laboratory Submittal Form

Page 1 of 1

Client: Advanced Technology Laboratories  
 Address: 3151-3153 W. Post Rd.  
 Las Vegas, NV 89118  
 Phone: 702-307-2659  
 Contact: Marlon Cartin

Carrier: Golden State Overnight

Turnaround Time: Standard  
 Number of Samples: 1  
 Date & Time of Sample Collection:  
 Type:  Water  Waste Water  Soil

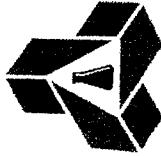
Sample Preservatives:  
 Sampler's Name:  
 Holding Times: Signature:  
 Filter  Impinger  Sorbent Tube  Other

EMS Only			
148509-1		N007012-0011	TEM-WATER 100.1
		UCC-12132011	
3			
4			
5		SEE ATTACHED FOR DETAILS	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			

**For EMS ONLY** 148509

Laboratory Number:	Received by:	Time:
Date of Package Delivery:	12/15/2011	Open
Condition of Package on Receipt:	OK	YES
Number of Samples:	1	NONE
Disposition of Samples:	EMS LABS	Chain of Custody Signature:
		Misc. Info: SF 7/06

EMS Laboratories 117 West Bellevue Drive / Pasadena CA 91105-2503 / 626-568-4065



## Advanced Technology Laboratories

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

[www.attglobal.com](http://www.attglobal.com)

TEL: 7023072659

FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

148509

QC Level: RTNE

Subcontractor:

EMS Laboratories  
117 W. Bellevue Dr.  
Pasadena, CA 91105

TEL:  
FAX:  
Acct #:

(626) 568-4065

14-Dec-11

Field Sampler: JAMES DYE

QC Level: RTNE

14-Dec-11

Requested Tests

Asb TEM

Bottle Type

Date Collected

Matrix

Sample ID

N007012-001 / UCC-12/32011

Wastewater

12/13/2011 12:30:00 PM

32CZP

1

General Comments:

Please email sample receipt acknowledgement to the PM.

Please use PO#: N007012

Please fax results by: Normal TAT

Please analyze for Asbestos by EPA 100.1.

Relinquished by:

Date/Time

12/14/11 @ 4:10

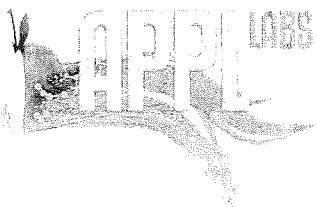
Received by:

Relinquished by:

Date/Time

12/15/11 @ 4:10

Received by:



908 North Temperance Ave. ▽ Clovis, CA 93611 ▽ Phone 559-275-2175 ▽ Fax 559-275-4422

## EPA Method 8290 Case Narrative

ARF: 66575

Project: Las Vegas, NV

State Certification Number: CA1312 (DW & WW)

NELAP Certification number: 05233CA (HW)

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

### Sample Receipt Information:

The sample was received on December 17, 2011, at 4.0°C. The sample was assigned Analytical Request Form (ARF) number 66575. The sample number and requested analysis were compared to the chain of custody. No exception was encountered.

**Sample Table**

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
N007012-001B / UCC-12132011	AY52202	WATER	12/13/11	12/17/11

The sample was screened for responses down to the EMPC or EDL, in accordance with the EPA 8290 method.

### Sample Preparation:

The sample was extracted and cleaned up according to the EPA 8290 method. All holding times were met.

### Analysis Information:

The samples were analyzed according to the EPA 8290, using a Waters Inc. Autospec Premier High Resolution Mass Spectrometer. The results were reported in accordance with EPA 8290 guidelines, as follows:

1. For analytes that had no chromatographic response in the samples, the EDL (Estimated Detection Limit) was reported in the EDL / EMPC column on the Form 1.
2. For analytes that exhibited chromatographic peaks in the samples (but did not meet the method requirements for positive identification), the EMPC (Estimated Maximum Potential Concentration) was reported in the EDL / EMPC column.

3. For the positively identified analytes the concentration was reported in the "Results" column, and EMPC was reported in the EDL / EMPC column. The EMPC is equal to the detected concentration.

The TEQ was calculated using the TEF values provided by the World Health Organization "Toxicity Equivalency Factor Table 2005".

## Quality Control/Accuracy

### Calibrations:

Calibrations and Resolution Checks were performed according to the method. For the CCVs 120115\_HR\_42 and 120115\_HR\_52 the 1,2,3,6,7,8-HxCDF recovered below the control limit of 80% at 77.0% and 75.3% respectively. All other calibration acceptance criteria were met.

### Blanks:

The method blank contained no target analytes at or above one-half the PQL.

### Spikes:

A Laboratory Control Spike (LCS) was used for quality control. 1,2,3,6,7,8\_HxCDF recovered below the lower control limit of 70% at 69.0%. There were no positive responses for this analyte in the sample. All other LCS recoveries met acceptance criteria.

No sample was designated by the client for MS/MSD analysis.

### Surrogate Recoveries (C13 Internal Standards):

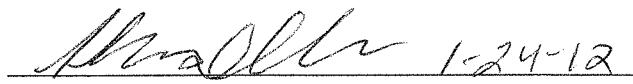
C13 Internal Standards were added to the extracts in accordance with the method and reported on the Form 1's as surrogate recoveries. For the CCV 120115\_HR\_52 the C13\_OCDD recovered above the upper control limit of 130% at 134%. All other recoveries met acceptance criteria.

### Summary:

All data were acceptable. No analytical exception is noted.

## CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.



Sharon Dehmlow 1-24-12  
Sharon Dehmlow, Laboratory Director / Date

**EPA METHOD 8290  
Dioxins/Furans**

**Chain of Custody and ARF**

**APPL, INC.**

## APPL - Analysis Request Form

66575

Client: Advanced Technology Labs  
 Address: 3151-3153 W. Post Rd.  
           Las Vegas, NV 89118  
 Attn: Marlon Cartin  
 Phone: 702-307-2659 Fax: 530-339-3303  
 Job: NA  
 PO #: N007012  
 Chain of Custody (Y/N): Y # N007012  
 RAD Screen (Y/N): Y pH (Y/N): N  
 Turn Around Type: 2 WEEKS

Received by: TBV  
 Date Received: 12/17/11 Time: 10:23  
 Delivered by: FED EX  
 Shuttle Custody Seals (Y/N): N Time Zone: PST  
 Chest Temp(s): 4.0, 4.0 °C  
 Color: H-PUGRN  
 Samples Chilled until Placed in Refrig/Freezer: Y  
 Project Manager: Cynthia Clark  
 QC Report Type: DVP4/CA/L7EDD/XLEDD  
 Due Date: 01/02/12

Comments:

*Hard copy to Shawn Duffy, pdf via email (split file if needed) to Shawn.Duffy@CH2M.com  
 EDD: LS7-2011, checked, to Shawn.Duffy@CH2M.com  
 & edata@CH2M.com  
 rush results with excel EDD to Shawn & Erlene.Contreras@CH2M.com (detailed subj  
 48-hour screening analysis unless special extraction/calibration  
 8290 Report 'PC' or 'DL' on Form 1  
 Gross up for %M before extraction  
 reanalyze any detection)*

Sample Distribution:  
 Extractions: 1- SEP8290  
 Other: 1-\$8290W

Charges:  
Invoice To:  
 CH2M HILL  
 Attn: Accounts Payable  
 P. O. Box 241329

Client ID	APPL ID	Sampled	Analyses Requested
1. N007012-001B	AY52202W	12/13/11 12:30	\$8290W

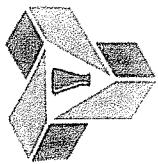
# APPL Sample Receipt Form

ARF# 66575

Sample	Container Type	Count	pH	Sample	Container Type	Count	pH
AY52202	17 Amber Liter	2	NA				

4.0°C

# Advanced Technology Laboratories



3151-3153 W Post Rd., Las Vegas, NV 89118  
[www.alglobal.com](http://www.alglobal.com)  
 TEL: 7023072659  
 FAX: 7023072691

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

**Subcontractor:**

APPL, Inc.  
 908 N. Temperance Ave.  
 Clovis, CA 93611

TEL:  
 FAX:  
 Acct #:

**Field Sampler:**

JAMES DYE

14-Dec-11

**QC Level:**

RTNE

Sample ID	Matrix	Date Collected	Bottle Type	EPA 8290	Requested Test(s)
N007012-001B / UCC-12132011	Wastewater	12/13/2011 12:30:00 PM	32OZP	1	

General Comments: Please email sample receipt acknowledgement to the PM.  
 Please use PO#: N007012 Please fax results by: Normal TAT  
 Please analyze for TCDD Equivalents with 17 Congeners and TEQ.

Date/Time	Date/Time
Relinquished by: <u>/</u>	Received by: <u>Melissa Jaffee</u> 12/17/11 10:23
Relinquished by: _____	Received by: _____

## COOLER RECEIPT FORM

- 1) Project: NA Date Received: 12/17/11
- 2) Coolers: Number of Coolers: 1
- 3)  YES  NO Were coolers and samples screened for radioactivity?
- 4) YES  NO Were custody seals on outside of cooler? How many? \_\_\_\_\_ Date on seal? \_\_\_\_\_
- 5) Name on seal? \_\_\_\_\_
- 6) YES  NO  Were custody seals unbroken and intact at the time of arrival?
- 7)  YES  NO Did the cooler come with a shipping slip (air bill, etc.)? Carrier name: Fed Ex
- 8) Shipping slip numbers: 1) 873907931261 2) 3)
- 9)  YES  NO NA Was the shipping slip scanned into the database?
- 10) YES  NO NA If cooler belongs to APPL, has it been logged into the ice chest database?
- 11) Describe type of packing in cooler (bubble wrap, popcorn, type of ice, etc.): bubble bag in wet ice

- 12) YES  NO  For hand delivered samples was sufficient ice present to start the cooling process?
- 13)  YES  NO Was a temperature blank included in the cooler?
- 14) Serial number of certified NIST thermometer used: A39267 Correction factor: 0
- 15) Cooler temp(s): 1) 4.0°C 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_ 5) \_\_\_\_\_ 6) \_\_\_\_\_ 7) \_\_\_\_\_ 8) \_\_\_\_\_

### Chain of custody:

- 16)  YES  NO Was a chain of custody received?
- 17)  YES  NO Were the custody papers signed in the appropriate places?
- 18)  YES  NO Was the project identifiable from custody papers?
- 19)  YES  NO Did the chain of custody include date and time of sampling?
- 20)  YES  NO Is location where sample was taken listed on the chain of custody?

### Sample Labels:

- 21)  YES  NO Were container labels in good condition?
- 22)  YES  NO Was the client ID on the label?
- 23)  YES  NO Was the date of sampling on the label?
- 24)  YES  NO Was the time of sampling on the label?
- 25)  YES  NO Did all container labels agree with custody papers?

### Sample Containers:

- 26)  YES  NO Were all containers sealed in separate bags?
- 27)  YES  NO Did all containers arrive unbroken?
- 28)  YES  NO Was there any leakage from samples?
- 29) YES  NO Were any of the lids cracked or broken?
- 30)  YES  NO Were correct containers used for the tests indicated?
- 31)  YES  NO Was a sufficient amount of sample sent for tests indicated?
- 32) YES  NO  NA Were bubbles present in volatile samples? If yes, the following were received with air bubbles:  
Larger than a pea: \_\_\_\_\_  
Smaller than a pea: \_\_\_\_\_

### Preservation & Hold time:

- 33)  YES  NO NA Was a sufficient amount of holding time remaining to analyze the samples?
- 34) YES  NO  NA Do the sample containers contain the same preservative as what is stated on the COC?
- 35) YES  NO  NA Was the pH taken of all non-VOA preserved samples and written on the sample container?
- 36) YES  NO  NA Was the pH of acid preserved non-VOA samples < 2 & sodium hydroxide preserved samples > 12?
- 37) YES  NO  NA Unpreserved VOA Vials received? \_\_\_\_\_
- 38) YES  NO  NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF? \_\_\_\_\_

Lab notified if pH was not adequate: \_\_\_\_\_

Deficiencies: Sample N007012-001B-COC listed 1 container but received two (Amber Liter)

Signature of personnel receiving samples: Jany L. Second reviewer:    
 Signature of project manager notified: Renee Date and Time of notification: 12-19-11  
 Name of client notified: \_\_\_\_\_ Date and Time of notification: \_\_\_\_\_  
 Information given to client: \_\_\_\_\_ by whom (Initials): \_\_\_\_\_

**EPA METHOD 8290**  
**Dioxins/Furans**

**QC Summary**

**APPL, INC.**

**Method Blank**  
**EPA 8290 - Dioxins and Furans**

Blank Name/QCG: **111220W-52202 - 163167**  
 Batch ID: \$8290W-111220A

APPL Inc.  
 908 North Temperance Avenu  
 Clovis, CA 93611

Sample Type	Analyte	Result	PQL	EDL/EMPC	Units	Ext Date	Analysis Date
BLANK	1,2,3,4,6,7,8-HPCDD	Not detected	125.0	4.7DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,4,6,7,8-HPCDF	Not detected	125.0	5.2DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,4,7,8,9-HPCDF	Not detected	125.0	7.5DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,4,7,8-HXCDD	Not detected	125.0	5.8DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,4,7,8-HXCDF	Not detected	125.0	1.5DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,6,7,8-HXCDD	Not detected	125.0	4.4DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,6,7,8-HXCDF	Not detected	125.0	1.1DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,7,8,9-HXCDD	Not detected	125.0	4.7DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,7,8,9-HXCDF	Not detected	125.0	1.7DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,7,8-PECDD	Not detected	125.0	3.6DL	pg/L	12/20/11	01/17/12
BLANK	1,2,3,7,8-PECDF	Not detected	125.0	0.95PC	pg/L	12/20/11	01/17/12
BLANK	2,3,4,6,7,8-HXCDF	Not detected	125.0	1.4DL	pg/L	12/20/11	01/17/12
BLANK	2,3,4,7,8-PECDF	Not detected	125.0	2.1DL	pg/L	12/20/11	01/17/12
BLANK	2,3,7,8-TCDD	Not detected	50.0	2.0DL	pg/L	12/20/11	01/17/12
BLANK	2,3,7,8-TCDF	Not detected	50.0	1.5DL	pg/L	12/20/11	01/17/12
BLANK	OCDD	Not detected	250.0	16PC	pg/L	12/20/11	01/17/12
BLANK	OCDF	Not detected	250.0	4.6DL	pg/L	12/20/11	01/17/12
BLANK	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S)	88.4	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S)	87.1	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)	102	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)	74.3	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-1,2,3,7,8-PECDD (S)	84.2	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-1,2,3,7,8-PECDF (S)	86.9	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-2,3,7,8-TCDD (S)	83.6	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-2,3,7,8-TCDF (S)	82.0	40-135		%	12/20/11	01/17/12
BLANK	SURROGATE: 13C-OCDD (S)	67.1	40-135		%	12/20/11	01/17/12

Quant Method: 8290_120115
Run #: 120115_HR_48
Instrument: Magneto
Sequence: 120115
Initials: RP

**Laboratory Control Spike Recovery**  
**EPA 8290 - Dioxins and Furans**

APPL ID: **111220W-52202 LCS - 163167**

Batch ID: #8290W-111220A

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level	SPK Result	SPK % Recovery	Recovery Limits
	pg/L	pg/L		
1,2,3,4,6,7,8-HPCDD	1250	1090	87.2	70-130
1,2,3,4,6,7,8-HPCDF	1250	1160	92.8	70-130
1,2,3,4,7,8,9-HPCDF	1250	1130	90.4	70-130
1,2,3,4,7,8-HXCDD	1250	1400	112	70-130
1,2,3,4,7,8-HXCDF	1250	1050	84.0	70-130
1,2,3,6,7,8-HXCDD	1250	1130	90.4	70-130
1,2,3,6,7,8-HXCDF	1250	862	69.0 #	70-130
1,2,3,7,8,9-HXCDD	1250	1250	100	70-130
1,2,3,7,8,9-HXCDF	1250	934	74.7	70-130
1,2,3,7,8-PECDD	1250	1100	88.0	70-130
1,2,3,7,8-PECDF	1250	1160	92.8	70-130
2,3,4,6,7,8-HXCDF	1250	943	75.4	70-130
2,3,4,7,8-PECDF	1250	1060	84.8	70-130
2,3,7,8-TCDD	500	460	92.0	70-130
2,3,7,8-TCDF	500	479	95.8	70-130
OCDD	2500	2190	87.6	70-130
OCDF	2500	2000	80.0	70-130
SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD	5000	4930	98.6	40-135
SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF	5000	4730	94.6	40-135
SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)	5000	5270	105	40-135
SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)	5000	3940	78.8	40-135
SURROGATE: 13C-1,2,3,7,8-PECDD (S)	2000	2000	100	40-135
SURROGATE: 13C-1,2,3,7,8-PECDF (S)	2000	2080	104	40-135
SURROGATE: 13C-2,3,7,8-TCDD (S)	2000	1800	90.0	40-135
SURROGATE: 13C-2,3,7,8-TCDF (S)	2000	1800	90.0	40-135
SURROGATE: 13C-OCDD (S)	10000	8940	89.4	40-135

# = Recovery is outside QC limits.

Comments:

Primary	SPK
Quant Method :	8290_120115
Extraction Date :	12/20/11
Analysis Date :	01/17/12
Instrument :	Magneto
Run :	120115_HR_46
Initials :	RP

Printed: 01/24/12 7:48:20 AM

APPL Standard LCS

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66575

Case No: 66575

Date Analyzed: 01/17/12

Matrix: WATER

Instrument: Magneto

APPL ID.	Client Sample No.	SURROGATE: 13C-1,2,3,4,6,7,8- HPCDD (S)			SURROGATE: 13C-1,2,3,4,6,7,8- HPCDF (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111220A-LCS	Lab Control Spike	40-135	98.6		40-135	94.6	
111220A-BLK	Blank	40-135	88.4		40-135	87.1	
AY52202	N007012-001B / UCC-12132011	40-135	83.5		40-135	89.5	

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:13 AM

Form 2 & 8, Surrogate Recovery Summary

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66575

Case No: 66575

Date Analyzed: 01/17/12

Matrix: WATER

Instrument: Magneto

APPL ID.	Client Sample No.	SURROGATE: 13C-1,2,3,4,7,8- HXCDF (S)			SURROGATE: 13C-1,2,3,6,7,8- HXCDD (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111220A-LCS	Lab Control Spike	40-135	105		40-135	78.8	
111220A-BLK	Blank	40-135	102		40-135	74.3	
AY52202	N007012-001B / UCC-12132011	40-135	96.6		40-135	77.4	

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:13 AM

Form 2 & 8, Surrogate Recovery Summary

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66575

Case No: 66575

Date Analyzed: 01/17/12

Matrix: WATER

Instrument: Magneto

APPL ID.	Client Sample No.	SURROGATE: 13C-1,2,3,7,8-PECDD (S)			SURROGATE: 13C-1,2,3,7,8-PECDF (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111220A-LCS	Lab Control Spike	40-135	100		40-135	104	
111220A-BLK	Blank	40-135	84.2		40-135	86.9	
AY52202	N007012-001B / UCC-12132011	40-135	95.6		40-135	96.4	

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:13 AM

Form 2 & 8, Surrogate Recovery Summary

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66575

Case No: 66575

Date Analyzed: 01/17/12

Matrix: WATER

Instrument: Magneto

APPL ID.	Client Sample No.	SURROGATE: 13C-2,3,7,8-TCDD (S)			SURROGATE: 13C-2,3,7,8-TCDF (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
111220A-LCS	Lab Control Spike	40-135	90.0		40-135	90.0	
111220A-BLK	Blank	40-135	83.6		40-135	82.0	
AY52202	N007012-001B / UCC-12132011	40-135	83.3		40-135	87.3	

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:13 AM

Form 2 & 8, Surrogate Recovery Summary

Form 2 & 8

**Surrogate Recovery**

Lab Name: APPL, Inc.

SDG No: 66575

Case No: 66575

Date Analyzed: 01/17/12

Matrix: WATER

Instrument: Magneto

APPL ID.	Client Sample No.	SURROGATE: 13C-OCDD (S)			APPL ID.	Client Sample No.	SURROGATE: 13C-OCDD (S)		
		Limits	Result	Qualifier			Limits	Result	Qualifier
111220A-LCS	Lab Control Spike	40-135	89.4						
111220A-BLK	Blank	40-135	67.1						
AY52202	N007012-001B / UCC-12132011	40-135	69.3						

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:13 AM

Form 2 & 8, Surrogate Recovery Summary

**EPA 8290**

Form 4

**Blank Summary**

Lab Name: APPL, Inc.  
Case No: 66575  
Matrix: WATER  
Blank ID: 111220A-BLK

SDG No: 66575  
Date Analyzed: 01/17/12  
Instrument: Magneto  
Time Analyzed: 2056

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111220A-LCS	Lab Control Spike	120115_HR_46	01/17/12 1831
111220A-BLK	Blank	120115_HR_48	01/17/12 2056
AY52202	N007012-001B / UCC-1213201	120118_HR_25	01/20/12 0108

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:10 AM  
Form 4, Blank Summary

**EPA 8290**

Form 4

**LCS Summary**

Lab Name: APPL, Inc.

SDG No: 66575

Case No: 66575

Date Analyzed: 01/17/12

Matrix: WATER

Instrument: Magneto

LCS ID: 111220A-LCS

Time Analyzed: 1831

APPL ID.	Client Sample No.	File ID.	Date Analyzed
111220A-LCS	Lab Control Spike	120115_HR_46	01/17/12 1831
111220A-BLK	Blank	120115_HR_48	01/17/12 2056
AY52202	N007012-001B / UCC-1213201	120118_HR_25	01/20/12 0108

Comments: Batch: #8290W-111220A

Printed: 01/24/12 7:48:08 AM  
Form 4, LCS Summary

**EPA METHOD 8290  
Dioxins/Furans**

**Sample Data**

**APPL, INC.**

## EPA 8290 - Dioxins and Furans

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Marlon Cartin

ARF: 66575

**Sample ID: N007012-001B / UCC-12132011**

**APPL ID: AY52202**

Sample Collection Date: 12/13/11

QCG: \$8290W-111220A-163167

Method	Analyte	Result	PQL	EDL/EMPC	Units	Ext Date	Analysis Date
EPA 8290	1,2,3,4,6,7,8-HPCDD	Not detected	125.0	17PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,6,7,8-HPCDF	Not detected	125.0	5.0PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,7,8,9-HPCDF	Not detected	125.0	2.1DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,7,8-HXCDD	Not detected	125.0	3.7PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,7,8-HXCDF	Not detected	125.0	2.3PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,6,7,8-HXCDD	Not detected	125.0	2.4DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,6,7,8-HXCDF	Not detected	125.0	1.4DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8,9-HXCDD	Not detected	125.0	2.4DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8,9-HXCDF	Not detected	125.0	2.0DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8-PECDD	Not detected	125.0	2.0DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8-PECDF	Not detected	125.0	0.90DL	pg/L	12/20/11	01/20/12
EPA 8290	2,3,4,6,7,8-HXCDF	Not detected	125.0	2.4PC	pg/L	12/20/11	01/20/12
EPA 8290	2,3,4,7,8-PECDF	Not detected	125.0	0.98DL	pg/L	12/20/11	01/20/12
EPA 8290	2,3,7,8-TCDD	Not detected	50.0	2.1DL	pg/L	12/20/11	01/20/12
EPA 8290	2,3,7,8-TCDF	Not detected	50.0	1.1DL	pg/L	12/20/11	01/20/12
EPA 8290	OCDD	110 J	250.0	110PC	pg/L	12/20/11	01/20/12
EPA 8290	OCDF	Not detected	250.0	6.4DL	pg/L	12/20/11	01/20/12
EPA 8290	TEQ	0.033	NA		pg/L	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S)	83.5	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S)	89.5	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)	96.6	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)	77.4	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDD (S)	95.6	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDF (S)	96.4	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDD (S)	83.3	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDF (S)	87.3	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-OCDD (S)	69.3	40-135		%	12/20/11	01/20/12

J = Estimated value.

Quant Method: 8290\_120118  
 Run #: 120118\_HR\_25  
 Instrument: Magneto  
 Sequence: 120118  
 Dilution Factor: 1  
 Initials: RP

Printed: 01/24/12 7:48:33 AM  
 Form 1 - APPL Standard GC - No MC

## EPA 8290 - Dioxins and Furans

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

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Marlon Cartin

ARF: 66575

**Sample ID: N007012-001B / UCC-12132011**

**APPL ID: AY52202**

Sample Collection Date: 12/13/11

QCG: \$8290W-111220A-163167

Method	Analyte	Result	PQL	EDL/EMPC	Units	Ext Date	Analysis Date
EPA 8290	1,2,3,4,6,7,8-HPCDD	Not detected	125.0	17PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,6,7,8-HPCDF	Not detected	125.0	5.0PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,7,8,9-HPCDF	Not detected	125.0	2.1DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,7,8-HXCDD	Not detected	125.0	3.7PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,4,7,8-HXCDF	Not detected	125.0	2.3PC	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,6,7,8-HXCDD	Not detected	125.0	2.4DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,6,7,8-HXCDF	Not detected	125.0	1.4DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8,9-HXCDD	Not detected	125.0	2.4DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8,9-HXCDF	Not detected	125.0	2.0DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8-PECDD	Not detected	125.0	2.0DL	pg/L	12/20/11	01/20/12
EPA 8290	1,2,3,7,8-PECDF	Not detected	125.0	0.90DL	pg/L	12/20/11	01/20/12
EPA 8290	2,3,4,6,7,8-HXCDF	Not detected	125.0	2.4PC	pg/L	12/20/11	01/20/12
EPA 8290	2,3,4,7,8-PECDF	Not detected	125.0	0.98DL	pg/L	12/20/11	01/20/12
EPA 8290	2,3,7,8-TCDD	Not detected	50.0	2.1DL	pg/L	12/20/11	01/20/12
EPA 8290	2,3,7,8-TCDF	Not detected	50.0	1.1DL	pg/L	12/20/11	01/20/12
EPA 8290	OCDD	110 J	250.0	110PC	pg/L	12/20/11	01/20/12
EPA 8290	OCDF	Not detected	250.0	6.4DL	pg/L	12/20/11	01/20/12
EPA 8290	TEQ	0.00011	NA		pg/L	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDD (S)	83.5	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,4,6,7,8-HPCDF (S)	89.5	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,4,7,8-HXCDF (S)	96.6	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,6,7,8-HXCDD (S)	77.4	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDD (S)	95.6	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-1,2,3,7,8-PECDF (S)	96.4	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDD (S)	83.3	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-2,3,7,8-TCDF (S)	87.3	40-135		%	12/20/11	01/20/12
EPA 8290	SURROGATE: 13C-OCDD (S)	69.3	40-135		%	12/20/11	01/20/12

**AMENDED PAGE**

PM 2/13/12

J = Estimated value.

Quant Method: 8290\_120118  
Run #: 120118\_HR\_25  
Instrument: Magneto  
Sequence: 120118  
Dilution Factor: 1  
Initials: RP

Printed: 02/13/12 3:23:49 PM  
Form 1 - APPL Standard GC - No MC

3. For the positively identified analytes the concentration was reported in the "Results" column, and EMPC was reported in the EDL / EMPC column. The EMPC is equal to the detected concentration.

The TEQ was calculated using the TEF and BEF values provided by the client as listed in NPDES Permit No. CA0063509, Order No. R4-2011-0095 for SFPP, L.P., Norwalk Pump Station.

## **Quality Control/Accuracy**

### **Calibrations:**

Calibrations and Resolution Checks were performed according to the method. For the CCVs 120115\_HR\_42 and 120115\_HR\_52 the 1,2,3,6,7,8-HxCDF recovered below the control limit of 80% at 77.0% and 75.3% respectively. All other calibration acceptance criteria were met.

### **Blanks:**

The method blank contained no target analytes at or above one-half the PQL.

### **Spikes:**

A Laboratory Control Spike (LCS) was used for quality control. 1,2,3,6,7,8\_HxCDF recovered below the lower control limit of 70% at 69.0%. There were no positive responses for this analyte in the sample. All other LCS recoveries met acceptance criteria.

No sample was designated by the client for MS/MSD analysis.

### **Surrogate Recoveries (C13 Internal Standards):**

C13 Internal Standards were added to the extracts in accordance with the method and reported on the Form 1's as surrogate recoveries. For the CCV 120115\_HR\_52 the C13\_OCDD recovered above the upper control limit of 130% at 134%. All other recoveries met acceptance criteria.

### **Summary:**

All data were acceptable. No analytical exception is noted.

## **CERTIFICATION**

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.



Sharon Dehmlow, Laboratory Director / Date



January 5, 2012

Mr. Marlon Cartin  
Advanced Technology Laboratories  
3151 W. Post Road  
Las Vegas, NV 89118

Dear Mr. Cartin:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* EPA-821-R-02-013. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Advanced Technology Laboratories
SAMPLE I.D.:	Eff-12-20-2011, Eff-12-22-2011, Eff-12-24-2011
DATE RECEIVED:	21, 22 & 24 Dec - 11
ABC LAB. NO.:	ATL1211.173

#### CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %
GROWTH	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %

Yours very truly,

  
Scott Johnson  
Laboratory Director

**CETIS Summary Report**

Report Date: 04 Jan-12 14:46 (p 1 of 1)  
 Test Code: 05-4473-8821/ATL1211.173fml

**Fathead Minnow 7-d Larval Survival and Growth Test****Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	07-3341-4561	Test Type:	Growth-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	01-1511-3232	Code:	ATL1211.173fml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
10-3162-9489	7d Survival Rate	100	>100	N/A	6.13%	1	Wilcoxon Rank Sum Two-Sample Test
18-0688-9060	Mean Dry Biomass-mg	100	>100	N/A	11.68%	1	Equal Variance t Two-Sample Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
07-4891-9649	7d Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
08-2255-0677	Mean Dry Biomass-mg	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
07-4891-9649	7d Survival Rate	Control Resp	0.9667	0.8 - NL	Yes	Result Within Limits
10-3162-9489	7d Survival Rate	Control Resp	0.9667	0.8 - NL	Yes	Result Within Limits
08-2255-0677	Mean Dry Biomass-mg	Control Resp	0.2892	0.25 - NL	Yes	Result Within Limits
18-0688-9060	Mean Dry Biomass-mg	Control Resp	0.2892	0.25 - NL	Yes	Result Within Limits
18-0688-9060	Mean Dry Biomass-mg	PMSD	0.1168	0.12 - 0.3	Yes	Result Below Limit

**7d Survival Rate Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	0.9667	0.9418	0.9916	0.8667	1	0.01217	0.06667	6.9%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	-3.45%

**Mean Dry Biomass-mg Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	0.2892	0.2801	0.2982	0.2547	0.31	0.004409	0.02415	8.35%	0.0%
100		4	0.4043	0.395	0.4137	0.3833	0.4373	0.004563	0.02499	6.18%	-39.83%

**7d Survival Rate Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	0.8667	1
100		1	1	1	1

**Mean Dry Biomass-mg Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.3	0.292	0.2547	0.31
100		0.3867	0.41	0.3833	0.4373

**CETIS Analytical Report**

Report Date: 04 Jan-12 14:45 (p 1 of 4)

Test Code: 05-4473-8821/ATL1211.173fml

**Fathead Minnow 7-d Larval Survival and Growth Test** Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	18-0688-9060	Endpoint:	Mean Dry Biomass-mg	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:44	Analysis:	Parametric-Two Sample	Official Results:	Yes
Batch ID:	07-3341-4561	Test Type:	Growth-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/621/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	01-1511-3232	Code:	ATL1211.173fml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run	100	>100	N/A	1	11.68%

**Equal Variance t Two-Sample Test**

Control	vs	Conc-%	Test Stat	Critical	MSD	P-Value	Decision(5%)
Negative Control		100	-6.627	1.943	0.03377	0.9997	Non-Significant Effect

**Test Acceptability**

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.2892	0.25 - NL	Yes	Result Within Limits
PMSD	0.1168	0.12 - 0.3	Yes	Result Below Limit

**Auxiliary Tests**

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.516	2.127	0.8507	No Outliers Detected

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.02652672	0.02652672	1	43.92	0.0006	Significant Effect
Error	0.003623888	0.0006039814	6			
Total	0.03015061	0.0271307	7			

**ANOVA Assumptions**

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	1.071	47.47	0.9562	Equal Variances
Variances	Mod Levene Equality of Variance	0.1009	13.75	0.7615	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9679		0.8809	Normal Distribution
Distribution	Kolmogorov-Smirnov	0.1746	0.3313	0.8574	Normal Distribution

**Mean Dry Biomass-mg Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	0.2892	0.28	0.2984	0.2547	0.31	0.004485	0.02415	8.35%	0.0%
100		4	0.4043	0.3948	0.4138	0.3833	0.4373	0.004641	0.02499	6.18%	-39.83%

# CETIS Analytical Report

Report Date: 04 Jan-12 14:45 (p 2 of 4)  
Test Code: 05-4473-8821/ATL1211.173fml

## Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 18-0688-9060

Endpoint: Mean Dry Biomass-mg

CETIS Version: CETISv1.7.0

Analyzed: 04 Jan-12 14:44

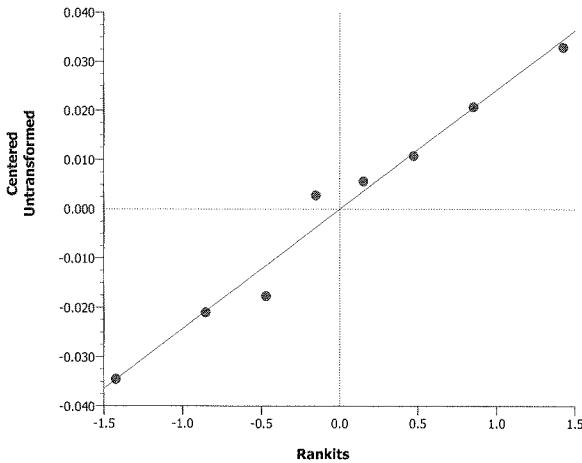
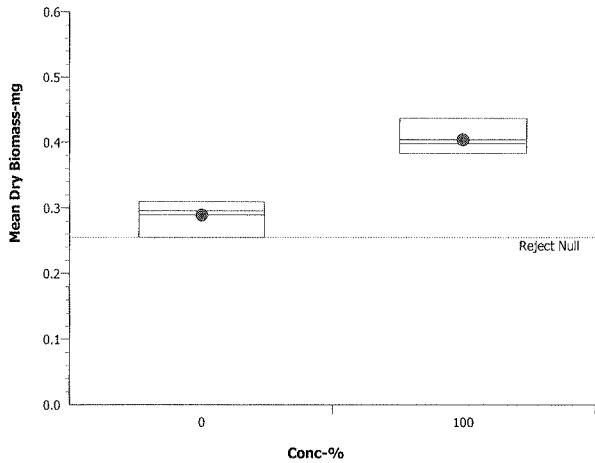
Analysis: Parametric-Two Sample

Official Results: Yes

### Mean Dry Biomass-mg Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.3	0.292	0.2547	0.31
100		0.3867	0.41	0.3833	0.4373

### Graphics



**CETIS Analytical Report**

Report Date: 04 Jan-12 14:45 (p 3 of 4)

Test Code: 05-4473-8821/ATL1211.173fml

**Fathead Minnow 7-d Larval Survival and Growth Test****Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	10-3162-9489	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:44	Analysis:	Nonparametric-Two Sample	Official Results:	Yes
Batch ID:	07-3341-4561	Test Type:	Growth-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	01-1511-3232	Code:	ATL1211.173fml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Angular (Corrected)	0	C > T	Not Run	100	>100	N/A	1	6.13%

**Wilcoxon Rank Sum Two-Sample Test**

Control	vs	Conc-%	Test Stat	Critical	Ties	P-Value	Decision(5%)
Negative Control		100	20		1	0.6571	Non-Significant Effect

**Test Acceptability**

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.9667	0.8 - NL	Yes	Result Within Limits

**Auxiliary Tests**

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	2.291	2.127	0.0077	Outlier Detected

**ANOVA Table**

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	0.00746223	0.00746223	1	1	0.3559	Non-Significant Effect
Error	0.04477338	0.00746223	6			
Total	0.05223561	0.01492446	7			

**ANOVA Assumptions**

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Mod Levene Equality of Variance	1	13.75	0.3559	Equal Variances
Distribution	Shapiro-Wilk Normality	0.7065		0.0027	Non-normal Distribution
Distribution	Kolmogorov-Smirnov	0.375	0.3313	0.0015	Non-normal Distribution

**7d Survival Rate Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	0.9667	0.9413	0.992	0.8667	1	0.01238	0.06667	6.9%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	-3.45%

**Angular (Corrected) Transformed Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	1.38	1.334	1.427	1.197	1.441	0.02269	0.1222	8.85%	0.0%
100		4	1.441	1.441	1.441	1.441	1.441	0	0	0.0%	-4.43%

# CETIS Analytical Report

Report Date: 04 Jan-12 14:45 (p 4 of 4)  
Test Code: 05-4473-8821/ATL1211.173fml

## Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 10-3162-9489

Endpoint: 7d Survival Rate

CETIS Version: CETISv1.7.0

Analyzed: 04 Jan-12 14:44

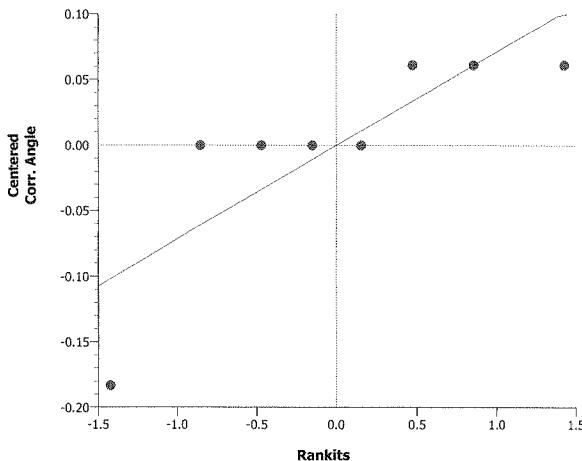
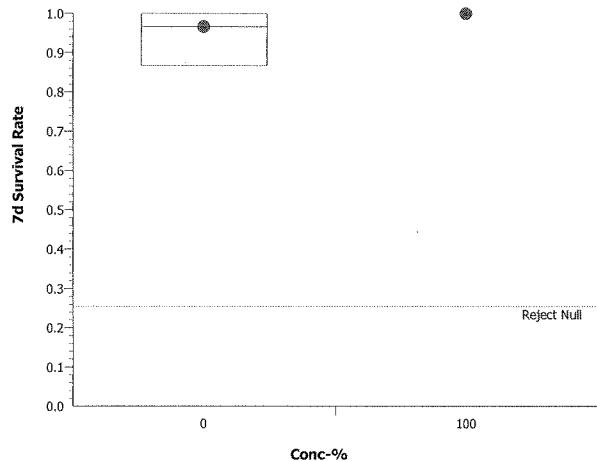
Analysis: Nonparametric-Two Sample

Official Results: Yes

### 7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	0.8667	1
100		1	1	1	1

### Graphics



**CETIS Analytical Report**

Report Date: 04 Jan-12 14:45 (p 1 of 3)  
 Test Code: 05-4473-8821/ATL1211.173fml

**Fathead Minnow 7-d Larval Survival and Growth Test****Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	08-2255-0677	Endpoint:	Mean Dry Biomass-mg	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:44	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes
Batch ID:	07-3341-4561	Test Type:	Growth-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	01-1511-3232	Code:	ATL1211.173fml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

**Linear Interpolation Options**

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	7607236	280	Yes	Two-Point Interpolation

**Test Acceptability**

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.2892	0.25 - NL	Yes	Result Within Limits

**Residual Analysis**

Attribute	Method	Test Stat	Critical	P-Value	Decision(5%)
Extreme Value	Grubbs Extreme Value	1.516	2.127	0.8507	No Outliers Detected

**Point Estimates**

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	N/A	N/A
IC10	>100	N/A	N/A	<1	N/A	N/A
IC15	>100	N/A	N/A	<1	N/A	N/A
IC20	>100	N/A	N/A	<1	N/A	N/A
IC25	>100	N/A	N/A	<1	N/A	N/A
IC40	>100	N/A	N/A	<1	N/A	N/A
IC50	>100	N/A	N/A	<1	N/A	N/A

**Mean Dry Biomass-mg Summary**

			Calculated Variate						
Conc-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	0.2892	0.2547	0.31	0.004409	0.02415	8.35%	0.0%
100		4	0.4043	0.3833	0.4373	0.004563	0.02499	6.18%	-39.83%

**Mean Dry Biomass-mg Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.3	0.292	0.2547	0.31
100		0.3867	0.41	0.3833	0.4373

# CETIS Analytical Report

Report Date: 04 Jan-12 14:45 (p 2 of 3)

Test Code: 05-4473-8821/ATL1211.173fml

## Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 08-2255-0677

Endpoint: Mean Dry Biomass-mg

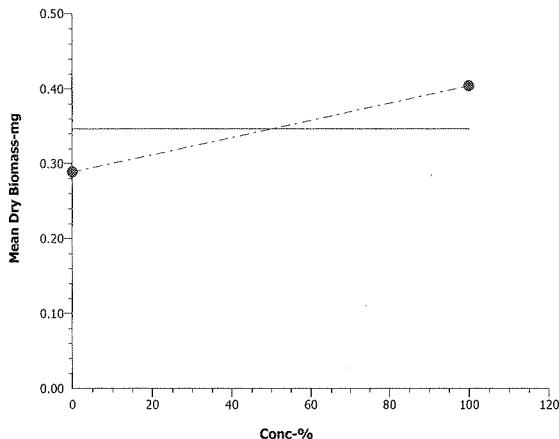
CETIS Version: CETISv1.7.0

Analyzed: 04 Jan-12 14:44

Analysis: Linear Interpolation (ICPIN)

Official Results: Yes

### Graphics



# CETIS Analytical Report

Report Date: 04 Jan-12 14:45 (p 3 of 3)  
 Test Code: 05-4473-8821/ATL1211.173fml

## Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	07-4891-9649	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:44	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes
Batch ID:	07-3341-4561	Test Type:	Growth-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	01-1511-3232	Code:	ATL1211.173fml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

### Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	7607236	280	Yes	Two-Point Interpolation

### Test Acceptability

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	0.9667	0.8 - NL	Yes	Result Within Limits

### Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	N/A	N/A
EC10	>100	N/A	N/A	<1	N/A	N/A
EC15	>100	N/A	N/A	<1	N/A	N/A
EC20	>100	N/A	N/A	<1	N/A	N/A
EC25	>100	N/A	N/A	<1	N/A	N/A
EC40	>100	N/A	N/A	<1	N/A	N/A
EC50	>100	N/A	N/A	<1	N/A	N/A

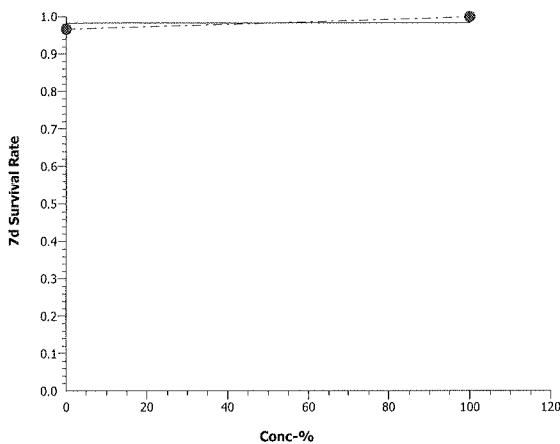
### 7d Survival Rate Summary

Conc-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	Diff%	A	B
0	Negative Control	4	0.9667	0.8667	1	0.01217	0.06667	6.9%	0.0%	58	60
100		4	1	1	1	0	0	0.0%	-3.45%	60	60

### 7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	0.8667	1
100		1	1	1	1

### Graphics



**CETIS Measurement Report**

 Report Date: 04 Jan-12 15:10 (p 1 of 2)  
 Test Code: 05-4473-8821/ATL1211.173fml

**Fathead Minnow 7-d Larval Survival and Growth Test**
**Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	07-3341-4561	Test Type:	Growth-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	01-1511-3232	Code:	ATL1211.173fml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

**Alkalinity (CaCO3)-mg/L**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	62	62	62	62	62	0	0	0.0%	0
100		8	516.8	505.9	527.6	465	536	5.368	32.21	6.23%	0
Overall		16	289.4			62	536			0 (0%)	

**Conductivity-µhos**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	334.4	331.2	337.5	328	354	1.548	9.288	2.78%	0
100		8	2299	2257	2340	2163	2513	20.45	122.7	5.34%	0
Overall		16	1317			328	2513			0 (0%)	

**Dissolved Oxygen-mg/L**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	7.213	7.105	7.32	6.7	7.8	0.05303	0.3182	4.41%	0
100		8	7.188	6.915	7.46	6.1	8.5	0.1341	0.8043	11.19%	0
Overall		16	7.2			6.1	8.5			0 (0%)	

**Hardness (CaCO3)-mg/L**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	88	88	88	88	88	0	0	0.0%	0
100		8	458.5	430	487	408	594	14.06	84.36	18.4%	0
Overall		16	273.3			88	594			0 (0%)	

**pH-Units**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.038	8.02	8.055	8	8.1	0.008627	0.05176	0.64%	0
100		8	8.038	8.012	8.063	8	8.2	0.0124	0.07441	0.93%	0
Overall		16	8.038			8	8.2			0 (0%)	

**Temperature-°C**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.06	24.01	24.11	24	24.4	0.02346	0.1408	0.59%	0
100		8	24.09	24.05	24.13	24	24.3	0.01876	0.1126	0.47%	0
Overall		16	24.08			24	24.4			0 (0%)	

**CETIS Measurement Report**

Report Date: 04 Jan-12 15:10 (p 2 of 2)

Test Code: 05-4473-8821/ATL1211.173fml

**Fathead Minnow 7-d Larval Survival and Growth Test****Aquatic Bioassay & Consulting Labs, Inc.****Alkalinity (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	62	62	62	62	62	62	62	62
100		465	465	524	536	536	536	536	536

**Conductivity- $\mu$ hos**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	354	328	328	328	330	330	335	342
100		2513	2468	2163	2248	2245	2248	2249	2255

**Dissolved Oxygen-mg/L**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.2	7.8	7.2	7.1	7.3	7.4	7	6.7
100		8.5	8.2	7.4	6.9	6.8	6.7	6.9	6.1

**Hardness (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	88	88	88	88	88	88	88	88
100		594	594	440	408	408	408	408	408

**pH-Units**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	8.1	8.1	8	8	8	8	8
100		8.1	8.2	8	8	8	8	8	8

**Temperature-°C**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24.4	24	24	24	24.1	24
100		24	24.1	24.1	24	24	24	24.3	24.2



January 5, 2012

Mr. Marlon Cartin  
Advanced Technology Laboratories  
3151 W. Post Road  
Las Vegas, NV 89118

Dear Mr. Cartin:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Advanced Technology Laboratories
SAMPLE I.D.:	Eff-12-20-2011, Eff-12-22-2011, Eff-12-24-2011
DATE RECEIVED:	21, 22 & 24 Dec - 11
ABC LAB. NO.:	ATL1211.173

#### CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

SURVIVAL	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %
REPRODUCTION	NOEC =	100.00 %
	TUc =	1.00
	IC25 =	>100.00 %
	IC50 =	>100.00 %

Yours very truly,

  
Scott Johnson  
Laboratory Director

**CETIS Summary Report**

**Report Date:** 04 Jan-12 14:53 (p 1 of 1)  
**Test Code:** 19-5844-0368/ATL1211.173cer

**Ceriodaphnia 7-d Survival and Reproduction Test**

Aquatic Bioassay &amp; Consulting Labs, Inc.

Batch ID:	11-8523-3827	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	13-4919-1168	Code:	ATL1211.173cer	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
07-7185-1225	7d Survival Rate	100	>100	N/A	N/A	1	Fisher Exact Test
10-7565-0189	Reproduction	100	>100	N/A	7.26%	1	Equal Variance t Two-Sample Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
11-4730-2210	7d Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	
06-0564-6786	Reproduction	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
07-7185-1225	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Result Within Limits
11-4730-2210	7d Survival Rate	Control Resp	1	0.8 - NL	Yes	Result Within Limits
06-0564-6786	Reproduction	Control Resp	27.3	15 - NL	Yes	Result Within Limits
10-7565-0189	Reproduction	Control Resp	27.3	15 - NL	Yes	Result Within Limits
10-7565-0189	Reproduction	PMSD	0.07264	0.13 - 0.47	Yes	Result Below Limit

**7d Survival Rate Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	10	1	1	1	1	1	0	0	0.0%	0.0%
100		10	1	1	1	1	1	0	0	0.0%	0.0%

**Reproduction Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	10	27.3	26.19	28.41	23	31	0.5447	2.983	10.93%	0.0%
100		10	31.8	31.04	32.56	29	35	0.3732	2.044	6.43%	-16.48%

**7d Survival Rate Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

**Reproduction Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	31	27	23	30	28	29	31	24	26	24
100		33	29	32	33	32	29	31	34	35	30

# CETIS Analytical Report

Report Date: 04 Jan-12 14:53 (p 1 of 2)

Test Code: 19-5844-0368/ATL1211.173cer

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	10-7565-0189	Endpoint:	Reproduction	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:53	Analysis:	Parametric-Two Sample	Official Results:	Yes
Batch ID:	11-8523-3827	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	13-4919-1168	Code:	ATL1211.173cer	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed	0	C > T	Not Run	100	>100	N/A	1	7.26%

## Equal Variance t Two-Sample Test

Control	vs	Conc-%	Test Stat	Critical	MSD	P-Value	Decision(5%)
Negative Control		100	-3.935	1.734	1.983	0.9995	Non-Significant Effect

## Test Acceptability

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	27.3	15 - NL	Yes	Result Within Limits
PMSD	0.07264	0.13 - 0.47	Yes	Result Below Limit

## Auxiliary Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision
Extreme Value	Grubbs Single Outlier	1.728	2.708	1.0000	No Outliers Detected

## ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(5%)
Between	101.25	101.25	1	15.48	0.0010	Significant Effect
Error	117.7	6.538889	18			
Total	218.95	107.7889	19			

## ANOVA Assumptions

Attribute	Test	Test Stat	Critical	P-Value	Decision(1%)
Variances	Variance Ratio F	2.13	6.541	0.2753	Equal Variances
Variances	Mod Levene Equality of Variance	2.398	8.285	0.1389	Equal Variances
Distribution	Shapiro-Wilk Normality	0.9539		0.4301	Normal Distribution
Distribution	Kolmogorov-Smirnov	0.1197	0.2235	0.6720	Normal Distribution
Distribution	D'Agostino Skewness	0.2416	2.576	0.8091	Normal Distribution
Distribution	D'Agostino Kurtosis	1.519	2.576	0.1289	Normal Distribution
Distribution	D'Agostino Omnibus	2.365	9.21	0.3066	Normal Distribution

## Reproduction Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	10	27.3	26.17	28.43	23	31	0.554	2.983	10.93%	0.0%
100		10	31.8	31.02	32.58	29	35	0.3796	2.044	6.43%	-16.48%

# CETIS Analytical Report

Report Date: 04 Jan-12 14:53 (p 2 of 2)

Test Code: 19-5844-0368/ATL1211.173cer

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay &amp; Consulting Labs, Inc.

Analysis ID: 10-7565-0189

Endpoint: Reproduction

CETIS Version: CETISv1.7.0

Analyzed: 04 Jan-12 14:53

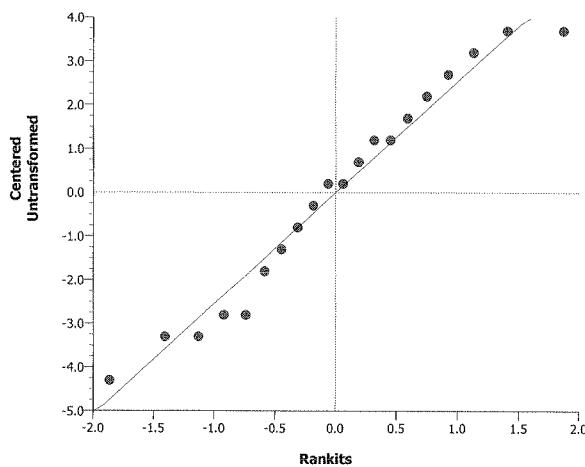
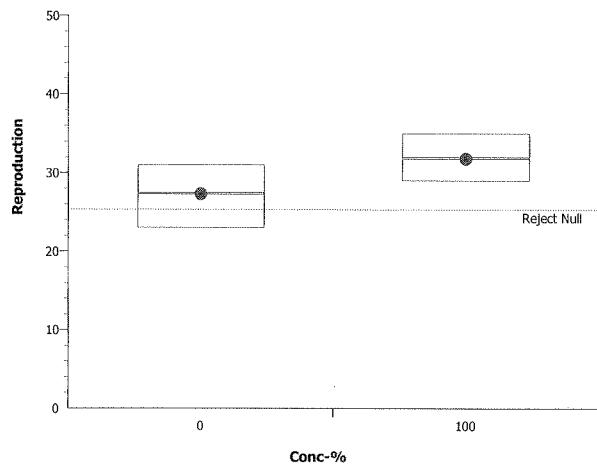
Analysis: Parametric-Two Sample

Official Results: Yes

### Reproduction Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	31	27	23	30	28	29	31	24	26	24
100		33	29	32	33	32	29	31	34	35	30

### Graphics



**CETIS Analytical Report**

Report Date: 04 Jan-12 14:53 (p 1 of 3)

Test Code: 19-5844-0368/ATL1211.173cer

**Ceriodaphnia 7-d Survival and Reproduction Test****Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	06-0564-6786	Endpoint:	Reproduction	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:53	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes
Batch ID:	11-8523-3827	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	13-4919-1168	Code:	ATL1211.173cer	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

**Linear Interpolation Options**

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	8144900	280	Yes	Two-Point Interpolation

**Test Acceptability**

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	27.3	15 - NL	Yes	Result Within Limits

**Residual Analysis**

Attribute	Method	Test Stat	Critical	P-Value	Decision(5%)
Extreme Value	Grubbs Extreme Value	1.728	2.708	1.0000	No Outliers Detected

**Point Estimates**

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	N/A	N/A
IC10	>100	N/A	N/A	<1	N/A	N/A
IC15	>100	N/A	N/A	<1	N/A	N/A
IC20	>100	N/A	N/A	<1	N/A	N/A
IC25	>100	N/A	N/A	<1	N/A	N/A
IC40	>100	N/A	N/A	<1	N/A	N/A
IC50	>100	N/A	N/A	<1	N/A	N/A

**Reproduction Summary**

Conc-%	Control Type	Count	Calculated Variate						
			Mean	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	10	27.3	23	31	0.5447	2.983	10.93%	0.0%
100		10	31.8	29	35	0.3732	2.044	6.43%	-16.48%

**Reproduction Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	31	27	23	30	28	29	31	24	26	24
100		33	29	32	33	32	29	31	34	35	30

# CETIS Analytical Report

Report Date: 04 Jan-12 14:53 (p 2 of 3)  
Test Code: 19-5844-0368/ATL1211.173cer

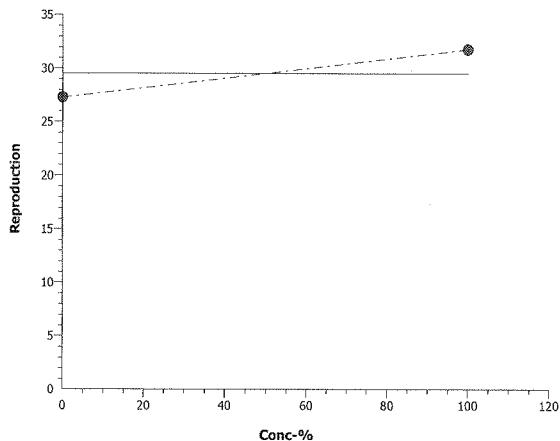
## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 06-0564-6786      Endpoint: Reproduction  
Analyzed: 04 Jan-12 14:53      Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.7.0  
Official Results: Yes

### Graphics



# CETIS Analytical Report

Report Date: 04 Jan-12 14:53 (p 3 of 3)

Test Code: 19-5844-0368/ATL1211.173cer

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-4730-2210	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:53	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes
Batch ID:	11-8523-3827	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	13-4919-1168	Code:	ATL1211.173cer	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

### Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	8144900	280	Yes	Two-Point Interpolation

### Test Acceptability

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	1	0.8 - NL	Yes	Result Within Limits

### Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	N/A	N/A
EC10	>100	N/A	N/A	<1	N/A	N/A
EC15	>100	N/A	N/A	<1	N/A	N/A
EC20	>100	N/A	N/A	<1	N/A	N/A
EC25	>100	N/A	N/A	<1	N/A	N/A
EC40	>100	N/A	N/A	<1	N/A	N/A
EC50	>100	N/A	N/A	<1	N/A	N/A

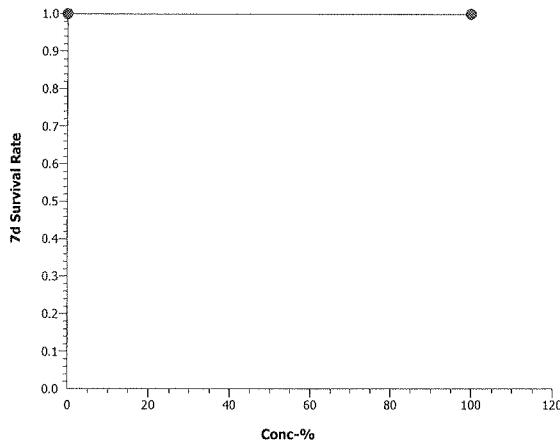
### 7d Survival Rate Summary

Conc-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	Diff%	A	B
0	Negative Control	10	1	1	1	0	0	0.0%	0.0%	10	10
100		10	1	1	1	0	0	0.0%	0.0%	10	10

### 7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

### Graphics



# CETIS Analytical Report

Report Date: 04 Jan-12 14:53 (p 1 of 1)

Test Code: 19-5844-0368/ATL1211.173cer

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	07-7185-1225	Endpoint:	7d Survival Rate	CETIS Version:	CETISv1.7.0
Analyzed:	04 Jan-12 14:52	Analysis:	Single 2x2 Contingency Table	Official Results:	Yes
Batch ID:	11-8523-3827	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	13-4919-1168	Code:	ATL1211.173cer	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD
Untransformed		C > T	Not Run	100	>100	N/A	1	N/A

## Fisher Exact Test

Control	vs	Conc-%	Test Stat	P-Value	Decision(0.05)
Negative Control		100	1	1.0000	Non-Significant Effect

## Test Acceptability

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control Resp	1	0.8 - NL	Yes	Result Within Limits

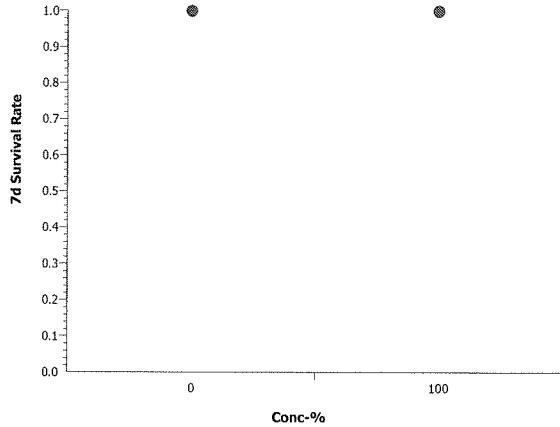
## Data Summary

Conc-%	Control Type	No-Resp	Resp	Total
0	Negative Contr	10	0	10
100		10	0	10

## 7d Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

## Graphics



**CETIS Measurement Report**

Report Date: 04 Jan-12 15:11 (p 1 of 2)  
 Test Code: 19-5844-0368/ATL1211.173cer

## Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay &amp; Consulting Labs, Inc.

Batch ID:	11-8523-3827	Test Type:	Reproduction-Survival (7d)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	28 Dec-11 12:05	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Duration:	6d 22h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	13-4919-1168	Code:	ATL1211.173cer	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

Alkalinity (CaCO<sub>3</sub>)-mg/L

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	62	62	62	62	62	0	0	0.0%	0
100		8	516.8	505.9	527.6	465	536	5.368	32.21	6.23%	0
Overall		16	289.4			62	536			0 (0%)	

## Conductivity-µmhos

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	334.4	331.2	337.5	328	354	1.548	9.288	2.78%	0
100		8	2299	2257	2340	2163	2513	20.45	122.7	5.34%	0
Overall		16	1317			328	2513			0 (0%)	

## Dissolved Oxygen-mg/L

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	7.213	7.105	7.32	6.7	7.8	0.05303	0.3182	4.41%	0
100		8	7.188	6.915	7.46	6.1	8.5	0.1341	0.8043	11.19%	0
Overall		16	7.2			6.1	8.5			0 (0%)	

Hardness (CaCO<sub>3</sub>)-mg/L

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	88	88	88	88	88	0	0	0.0%	0
100		8	458.5	430	487	408	594	14.06	84.36	18.4%	0
Overall		16	273.3			88	594			0 (0%)	

## pH-Units

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	8.038	8.02	8.055	8	8.1	0.008627	0.05176	0.64%	0
100		8	8.038	8.012	8.063	8	8.2	0.0124	0.07441	0.93%	0
Overall		16	8.038			8	8.2			0 (0%)	

## Temperature-°C

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	8	24.06	24.01	24.11	24	24.4	0.02346	0.1408	0.59%	0
100		8	24.09	24.05	24.13	24	24.3	0.01876	0.1126	0.47%	0
Overall		16	24.08			24	24.4			0 (0%)	

**CETIS Measurement Report**Report Date: 04 Jan-12 15:11 (p 2 of 2)  
Test Code: 19-5844-0368/ATL1211.173cer**Ceriodaphnia 7-d Survival and Reproduction Test****Aquatic Bioassay & Consulting Labs, Inc.****Alkalinity (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	62	62	62	62	62	62	62	62
100		465	465	524	536	536	536	536	536

**Conductivity- $\mu$ hos**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	354	328	328	328	330	330	335	342
100		2513	2468	2163	2248	2245	2248	2249	2255

**Dissolved Oxygen-mg/L**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	7.2	7.8	7.2	7.1	7.3	7.4	7	6.7
100		8.5	8.2	7.4	6.9	6.8	6.7	6.9	6.1

**Hardness (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	88	88	88	88	88	88	88	88
100		594	594	440	408	408	408	408	408

**pH-Units**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	8.1	8.1	8.1	8	8	8	8	8
100		8.1	8.2	8	8	8	8	8	8

**Temperature-°C**

Conc-%	Control Type	1	2	3	4	5	6	7	8
0	Negative Contr	24	24	24.4	24	24	24	24.1	24
100		24	24.1	24.1	24	24	24	24.3	24.2



January 5, 2012

Mr. Marlon Cartin  
Advanced Technology Laboratories  
3151 W. Post Road  
Las Vegas, NV 89118

Dear Mr. Cartin:

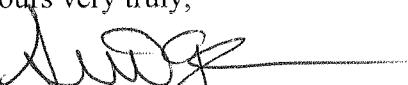
We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA-821-R-02-013.* "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT:	Advanced Technology Laboratories
SAMPLE I.D.:	Eff-12-22-2011
DATE RECEIVED:	22 Dec - 11
ABC LAB. NO.:	ATL1211.201

#### **CHRONIC SELENASTRUM ALGAE GROWTH BIOASSAY**

NOEC =	100.00 %
TUc =	1.00
IC25 =	>100.00 %
IC50 =	>100.00 %

Yours very truly,

  
Scott Johnson  
Laboratory Director

# CETIS Summary Report

Report Date: 04 Jan-12 15:08 (p 1 of 1)  
 Test Code: 13-6916-3446/ATL1211.201sel

Selenastrum Growth Test				Aquatic Bioassay & Consulting Labs, Inc.	
Batch ID:	03-8422-1943	Test Type:	Cell Growth	Analyst:	
Start Date:	22 Dec-11 15:20	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	26 Dec-11 13:30	Species:	Selenastrum capricornutum	Brine:	Not Applicable
Duration:	94h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	08-2042-6422	Code:	ATL1211.201sel	Client:	Advanced Technology Laboratories
Sample Date:	21 Dec-11 11:55	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	22 Dec-11 15:00	Source:	Bioassay Report		
Sample Age:	27h (15.5 °C)	Station:	Eff-12-22-2011		

## Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
05-6322-8646	Cell Density	100	>100	N/A	3.98%	1	Equal Variance t Two-Sample Test

## Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
20-7327-1352	Cell Density	IC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		IC10	>100	N/A	N/A	<1	
		IC15	>100	N/A	N/A	<1	
		IC20	>100	N/A	N/A	<1	
		IC25	>100	N/A	N/A	<1	
		IC40	>100	N/A	N/A	<1	
		IC50	>100	N/A	N/A	<1	

## Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC	Limits	Overlap	Decision
05-6322-8646	Cell Density	Control CV	0.01569	NL - 0.2		Yes	Result Within Limits
20-7327-1352	Cell Density	Control CV	0.01569	NL - 0.2		Yes	Result Within Limits
05-6322-8646	Cell Density	Control Resp	1.16E+6	1.00E+6 - NL		Yes	Result Within Limits
20-7327-1352	Cell Density	Control Resp	1.16E+6	1.00E+6 - NL		Yes	Result Within Limits
05-6322-8646	Cell Density	PMSD	0.03983	0.091 - 0.29		Yes	Result Below Limit

## Cell Density Summary

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	1.164E+6	1.157E+6	1.171E+6	1.148E+6	1.186E+6	3.333E+3	1.826E+4	1.57%	0.0%
100		4	1.382E+6	1.366E+6	1.398E+6	1.318E+6	1.416E+6	8.048E+3	4.408E+4	3.19%	-18.73%

## Cell Density Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.150E+6	1.172E+6	1.186E+6	1.148E+6
100		1.416E+6	1.318E+6	1.389E+6	1.405E+6

# CETIS Analytical Report

Report Date: 04 Jan-12 15:08 (p 1 of 2)  
 Test Code: 13-6916-3446/ATL1211.201sel

Selenastrum Growth Test		Aquatic Bioassay & Consulting Labs, Inc.									
Analysis ID:	05-6322-8646	Endpoint:	Cell Density		CETIS Version:	CETISv1.7.0					
Analyzed:	04 Jan-12 15:07	Analysis:	Parametric-Two Sample				Official Results:	Yes			
Batch ID:	03-8422-1943	Test Type:	Cell Growth				Analyst:				
Start Date:	22 Dec-11 15:20	Protocol:	EPA/821/R-02-013 (2002)				Diluent:	Laboratory Water			
Ending Date:	26 Dec-11 13:30	Species:	Selenastrum capricornutum				Brine:	Not Applicable			
Duration:	94h	Source:	Aquatic Biosystems, CO				Age:				
Sample ID:	08-2042-6422	Code:	ATL1211.201sel				Client:	Advanced Technology Laboratories			
Sample Date:	21 Dec-11 11:55	Material:	Sample Water				Project:	CH2M Hill- Norwalk			
Receive Date:	22 Dec-11 15:00	Source:	Bioassay Report								
Sample Age:	27h (15.5 °C)	Station:	Eff-12-22-2011								
Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD			
Untransformed	0	C > T	Not Run	100	>100	N/A	1	3.98%			
Equal Variance t Two-Sample Test											
Control	vs	Conc-%	Test Stat	Critical	MSD	P-Value	Decision(5%)				
Negative Control		100	-9.138	1.943	46360	1.0000	Non-Significant Effect				
Test Acceptability											
Attribute	Test Stat	TAC Limits	Overlap	Decision							
Control CV	0.01569	NL - 0.2	Yes	Result Within Limits							
Control Resp	1.16E+6	1.00E+6 - NL	Yes	Result Within Limits							
PMSD	0.03983	0.091 - 0.29	Yes	Result Below Limit							
Auxiliary Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision					
Extreme Value	Grubbs Single Outlier		2.049	2.127	0.0893	No Outliers Detected					
ANOVA Table											
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(5%)				
Between	95048000000		95048000000	1	83.5	<0.0001	Significant Effect				
Error	6830000000		1138333000	6							
Total	1.01878E+11		96186340000	7							
ANOVA Assumptions											
Attribute	Test		Test Stat	Critical	P-Value	Decision(1%)					
Variances	Variance Ratio F		5.83	47.47	0.1816	Equal Variances					
Variances	Mod Levene Equality of Variance		0.6046	13.75	0.4664	Equal Variances					
Distribution	Shapiro-Wilk Normality		0.8906		0.2370	Normal Distribution					
Distribution	Kolmogorov-Smirnov		0.2137	0.3313	0.3997	Normal Distribution					
Cell Density Summary											
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	1.164E+6	1.157E+6	1.171E+6	1.148E+6	1.186E+6	3.390E+3	1.826E+4	1.57%	0.0%
100		4	1.382E+6	1.365E+6	1.399E+6	1.318E+6	1.416E+6	8.186E+3	4.408E+4	3.19%	-18.73%

# CETIS Analytical Report

Report Date: 04 Jan-12 15:08 (p 2 of 2)  
Test Code: 13-6916-3446/ATL1211.201sel

## Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 05-6322-8646  
Analyzed: 04 Jan-12 15:07

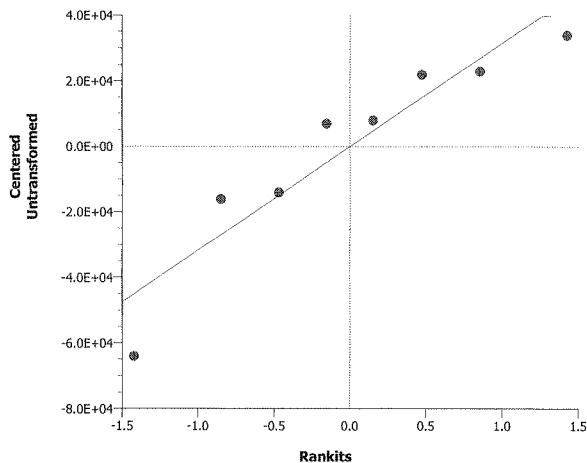
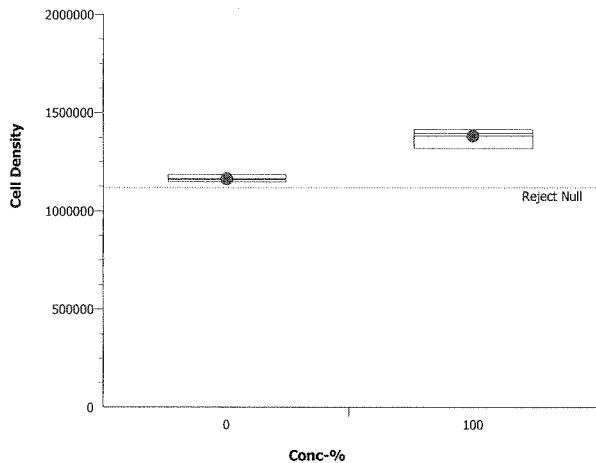
Endpoint: Cell Density  
Analysis: Parametric-Two Sample

CETIS Version: CETISv1.7.0  
Official Results: Yes

### Cell Density Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.150E+6	1.172E+6	1.186E+6	1.148E+6
100		1.416E+6	1.318E+6	1.389E+6	1.405E+6

### Graphics



# CETIS Analytical Report

Report Date: 04 Jan-12 15:08 (p 1 of 2)  
 Test Code: 13-6916-3446/ATL1211.201sel

Selenastrum Growth Test			Aquatic Bioassay & Consulting Labs, Inc.	
Analysis ID:	20-7327-1352	Endpoint:	Cell Density	
Analyzed:	04 Jan-12 15:07	Analysis:	Linear Interpolation (ICPIN)	
Batch ID:	03-8422-1943	Test Type:	Cell Growth	
Start Date:	22 Dec-11 15:20	Protocol:	EPA/821/R-02-013 (2002)	
Ending Date:	26 Dec-11 13:30	Species:	Selenastrum capricornutum	
Duration:	94h	Source:	Aquatic Biosystems, CO	
Sample ID:	08-2042-6422	Code:	ATL1211.201sel	
Sample Date:	21 Dec-11 11:55	Material:	Sample Water	
Receive Date:	22 Dec-11 15:00	Source:	Bioassay Report	
Sample Age:	27h (15.5 °C)	Station:	Eff-12-22-2011	

## Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	453528	280	Yes	Two-Point Interpolation

## Test Acceptability

Attribute	Test Stat	TAC Limits	Overlap	Decision
Control CV	0.01569	NL - 0.2	Yes	Result Within Limits
Control Resp	1.16E+6	1.00E+6 - NL	Yes	Result Within Limits

## Residual Analysis

Attribute	Method	Test Stat	Critical	P-Value	Decision(5%)
Extreme Value	Grubbs Extreme Value	2.049	2.127	0.0893	No Outliers Detected

## Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
IC5	>100	N/A	N/A	<1	N/A	N/A
IC10	>100	N/A	N/A	<1	N/A	N/A
IC15	>100	N/A	N/A	<1	N/A	N/A
IC20	>100	N/A	N/A	<1	N/A	N/A
IC25	>100	N/A	N/A	<1	N/A	N/A
IC40	>100	N/A	N/A	<1	N/A	N/A
IC50	>100	N/A	N/A	<1	N/A	N/A

## Cell Density Summary

			Calculated Variate						
Conc-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	1.164E+6	1.148E+6	1.186E+6	3.333E+3	1.826E+4	1.57%	0.0%
100		4	1.382E+6	1.318E+6	1.416E+6	8.048E+3	4.408E+4	3.19%	-18.73%

## Cell Density Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.150E+6	1.172E+6	1.186E+6	1.148E+6
100		1.416E+6	1.318E+6	1.389E+6	1.405E+6

# CETIS Analytical Report

Report Date: 04 Jan-12 15:08 (p 2 of 2)  
Test Code: 13-6916-3446/ATL1211.201sel

## Selenastrum Growth Test

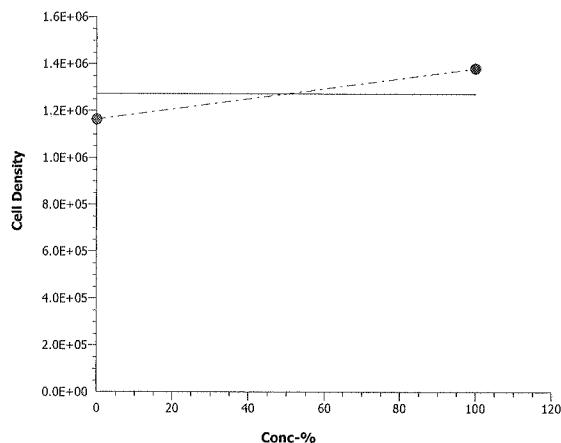
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 20-7327-1352  
Analyzed: 04 Jan-12 15:07

Endpoint: Cell Density  
Analysis: Linear Interpolation (ICPIN)

CETIS Version: CETISv1.7.0  
Official Results: Yes

## Graphics



# CETIS Measurement Report

Report Date: 04 Jan-12 15:08 (p 1 of 2)  
 Test Code: 13-6916-3446/ATL1211.201sel

Selenastrum Growth Test										Aquatic Bioassay & Consulting Labs, Inc.					
Batch ID:	03-8422-1943	Test Type:	Cell Growth					Analyst:							
Start Date:	22 Dec-11 15:20	Protocol:	EPA/821/R-02-013 (2002)					Diluent:	Laboratory Water						
Ending Date:	26 Dec-11 13:30	Species:	Selenastrum capricornutum					Brine:	Not Applicable						
Duration:	94h	Source:	Aquatic Biosystems, CO					Age:							
Sample ID:	08-2042-6422	Code:	ATL1211.201sel					Client:	Advanced Technology Laboratories						
Sample Date:	21 Dec-11 11:55	Material:	Sample Water					Project:	CH2M Hill- Norwalk						
Receive Date:	22 Dec-11 15:00	Source:	Bioassay Report					Station:							
Sample Age:	27h (15.5 °C)	Station:	Eff-12-22-2011												
<b>Alkalinity (CaCO<sub>3</sub>)-mg/L</b>															
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count				
0	Negative Contr	1	69			69	69	0	0	0.0%	0				
100		1	524			524	524	0	0	0.0%	0				
Overall		2	296.5			69	524				0 (0%)				
<b>Conductivity-µmhos</b>															
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count				
0	Negative Contr	5	419.2	417.9	420.5	415	425	0.6498	3.899	0.93%	0				
100		5	2208	2192	2224	2156	2248	7.96	47.76	2.16%	0				
Overall		10	1314			415	2248				0 (0%)				
<b>Hardness (CaCO<sub>3</sub>)-mg/L</b>															
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count				
0	Negative Contr	1	80			80	80	0	0	0.0%	0				
100		1	440			440	440	0	0	0.0%	0				
Overall		2	260			80	440				0 (0%)				
<b>pH-Units</b>															
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count				
0	Negative Contr	5	7.84	7.81	7.87	7.7	7.9	0.01491	0.08944	1.14%	0				
100		5	8.1	7.949	8.251	7.3	8.3	0.07453	0.4472	5.52%	0				
Overall		10	7.97			7.3	8.3				0 (0%)				
<b>Temperature-°C</b>															
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count				
0	Negative Contr	5	24.96	24.86	25.06	24.8	25.5	0.05083	0.305	1.22%	0				
100		5	24.96	24.86	25.06	24.8	25.5	0.05083	0.305	1.22%	0				
Overall		10	24.96			24.8	25.5				0 (0%)				

**CETIS Measurement Report**Report Date: 04 Jan-12 15:08 (p 2 of 2)  
Test Code: 13-6916-3446/ATL1211.201sel**Selenastrum Growth Test****Aquatic Bioassay & Consulting Labs, Inc.****Alkalinity (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1				
0	Negative Contr	69				
100		524				

**Conductivity- $\mu$ hos**

Conc-%	Control Type	1	2	3	4	5
0	Negative Contr	421	418	415	417	425
100		2156	2156	2242	2239	2248

**Hardness (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1				
0	Negative Contr	80				
100		440				

**pH-Units**

Conc-%	Control Type	1	2	3	4	5
0	Negative Contr	7.7	7.8	7.9	7.9	7.9
100		7.3	8.3	8.3	8.3	8.3

**Temperature-°C**

Conc-%	Control Type	1	2	3	4	5
0	Negative Contr	25.5	24.9	24.8	24.8	24.8
100		25.5	24.9	24.8	24.8	24.8



January 5, 2012

Mr. Marlon Cartin  
Advanced Technology Laboratories  
3151 W. Post Road  
Las Vegas, NV 89118

Dear Mr. Cartin:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA-821-R-02-012*. "All acceptability criteria were met and the concentration-response was normal. This is a valid test." Results were as follows:

CLIENT: Advanced Technology Laboratories  
SAMPLE I.D.: Eff-12-20-2011  
DATE RECEIVED: 21 Dec - 11  
ABC LAB. NO.: ATL1211.173

**96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY**

LC50 = 100 % Survival in 100% Sample  
TU(a) = 0.00

Yours very truly,

  
\_\_\_\_\_  
Scott Johnson  
Laboratory Director

**CETIS Summary Report**

Report Date: 04 Jan-12 15:00 (p 1 of 1)  
 Test Code: 20-7520-1384/ATL1211.173afml

**Fathead Minnow 96-h Acute Survival Test**

Aquatic Bioassay &amp; Consulting Labs, Inc.

Batch ID:	01-0879-3803	Test Type:	Survival (96h)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Laboratory Water
Ending Date:	25 Dec-11 14:00	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	96h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	02-6162-9973	Code:	ATL1211.173afml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-0582-1537	96h Survival Rate	100	>100	N/A	2.5%	1	Wilcoxon Rank Sum Two-Sample Test

**Point Estimate Summary**

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
13-0516-7080	96h Survival Rate	EC5	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC10	>100	N/A	N/A	<1	
		EC15	>100	N/A	N/A	<1	
		EC20	>100	N/A	N/A	<1	
		EC25	>100	N/A	N/A	<1	
		EC40	>100	N/A	N/A	<1	
		EC50	>100	N/A	N/A	<1	

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
13-0516-7080	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Result Within Limits
19-0582-1537	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Result Within Limits

**96h Survival Rate Summary**

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%
0	Negative Control	4	1	1	1	1	1	0	0	0.0%	0.0%
100		4	1	1	1	1	1	0	0	0.0%	0.0%

**96h Survival Rate Detail**

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	
100		1	1	1	1

**CETIS Analytical Report**

Report Date: 04 Jan-12 15:00 (p 1 of 2)  
 Test Code: 20-7520-1384/ATL1211.173afml

Fathead Minnow 96-h Acute Survival Test							Aquatic Bioassay & Consulting Labs, Inc.					
Analysis ID:	19-0582-1537	Endpoint: 96h Survival Rate				CETIS Version: CETISv1.7.0						
Analyzed:	04 Jan-12 15:00	Analysis: Nonparametric-Two Sample				Official Results: Yes						
Batch ID:	01-0879-3803	Test Type: Survival (96h)				Analyst:						
Start Date:	21 Dec-11 14:02	Protocol: EPA/821/R-02-012 (2002)				Diluent: Laboratory Water						
Ending Date:	25 Dec-11 14:00	Species: Pimephales promelas				Brine: Not Applicable						
Duration:	96h	Source: Aquatic Biosystems, CO				Age:						
Sample ID:	02-6162-9973	Code: ATL1211.173afml				Client: Advanced Technology Laboratories						
Sample Date:	20 Dec-11 12:00	Material: Sample Water				Project: CH2M Hill- Norwalk						
Receive Date:	21 Dec-11 08:50	Source: Bioassay Report										
Sample Age:	26h (5.2 °C)	Station: Eff-12-20-2011										
Data Transform	Zeta	Alt Hyp	Monte Carlo	NOEL	LOEL	TOEL	TU	PMSD				
Angular (Corrected)	0	C > T	Not Run	100	>100	N/A	1	2.5%				
Wilcoxon Rank Sum Two-Sample Test												
Control	vs	Conc-%	Test Stat	Critical	Ties	P-Value	Decision(5%)					
Negative Control		100	18		1	0.4429	Non-Significant Effect					
Test Acceptability												
Attribute	Test Stat	TAC Limits	Overlap	Decision								
Control Resp	1	0.9 - NL	Yes	Result Within Limits								
ANOVA Table												
Source	Sum Squares		Mean Square	DF	F Stat	P-Value	Decision(5%)					
Between	0		0	1	65540	<0.0001	Significant Effect					
Error	0		0	6								
Total	0		0	7								
ANOVA Assumptions												
Attribute	Test		Test Stat	Critical	P-Value	Decision(1%)						
Variances	Mod Levene Equality of Variance		65540	13.75	<0.0001	Unequal Variances						
96h Survival Rate Summary												
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%	
0	Negative Control		1	1	1	1	1	0	0	0.0%	0.0%	
100	4		1	1	1	1	1	0	0	0.0%	0.0%	
Angular (Corrected) Transformed Summary												
Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	Diff%	
0	Negative Control		1.412	1.412	1.412	1.412	1.412	0	0	0.0%	0.0%	
100	4		1.412	1.412	1.412	1.412	1.412	0	0	0.0%	0.0%	

# CETIS Analytical Report

Report Date: 04 Jan-12 15:00 (p 2 of 2)  
Test Code: 20-7520-1384/ATL1211.173afml

## Fathead Minnow 96-h Acute Survival Test

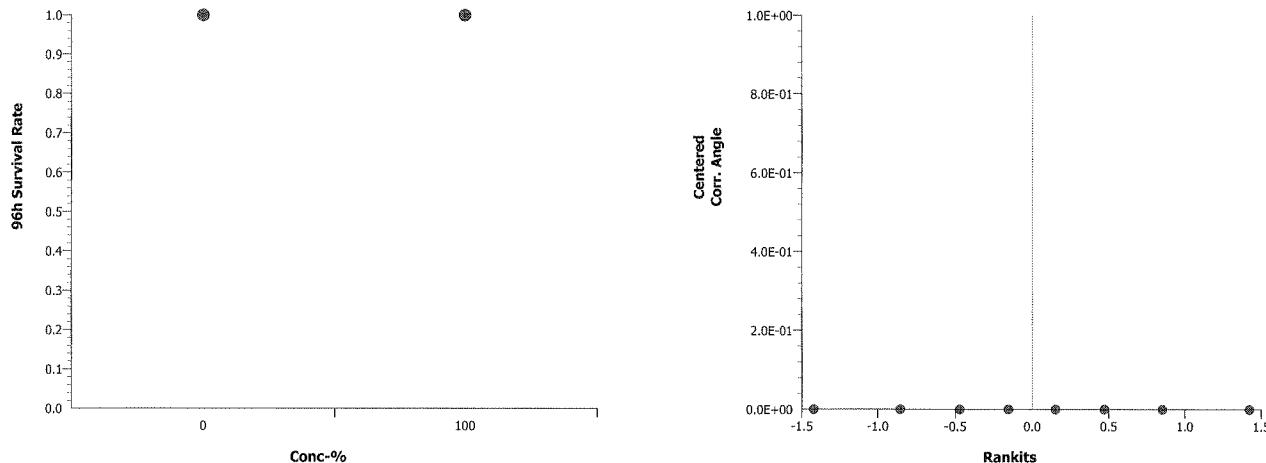
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID: 19-0582-1537 Endpoint: 96h Survival Rate CETIS Version: CETISv1.7.0  
Analyzed: 04 Jan-12 15:00 Analysis: Nonparametric-Two Sample Official Results: Yes

### 96h Survival Rate Detail

Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1	1	1	1
100		1	1	1	1

### Graphics



# CETIS Analytical Report

Report Date: 04 Jan-12 15:00 (p 1 of 1)  
 Test Code: 20-7520-1384/ATL1211.173afml

Fathead Minnow 96-h Acute Survival Test		Aquatic Bioassay & Consulting Labs, Inc.									
Analysis ID:	13-0516-7080	Endpoint:	96h Survival Rate								
Analyzed:	04 Jan-12 15:00	Analysis:	Linear Interpolation (ICPIN)								
Batch ID:	01-0879-3803	Test Type:	Survival (96h)								
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-012 (2002)								
Ending Date:	25 Dec-11 14:00	Species:	Pimephales promelas								
Duration:	96h	Source:	Aquatic Biosystems, CO								
Sample ID:	02-6162-9973	Code:	ATL1211.173afml								
Sample Date:	20 Dec-11 12:00	Material:	Sample Water								
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report								
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011								
Linear Interpolation Options											
X Transform	Y Transform	Seed	Resamples								
Linear	Linear	7090379	280								
Exp 95% CL		Method									
Yes		Two-Point Interpolation									
Test Acceptability											
Attribute	Test Stat	TAC Limits	Overlap	Decision							
Control Resp	1	0.9 - NL	Yes	Result Within Limits							
Point Estimates											
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL					
EC5	>100	N/A	N/A	<1	N/A	N/A					
EC10	>100	N/A	N/A	<1	N/A	N/A					
EC15	>100	N/A	N/A	<1	N/A	N/A					
EC20	>100	N/A	N/A	<1	N/A	N/A					
EC25	>100	N/A	N/A	<1	N/A	N/A					
EC40	>100	N/A	N/A	<1	N/A	N/A					
EC50	>100	N/A	N/A	<1	N/A	N/A					
96h Survival Rate Summary				Calculated Variate(A/B)							
Conc-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	Diff%	A	B
0	Negative Control		4	1	1	1	0	0	0.0%	0.0%	40
100			4	1	1	1	0	0	0.0%	0.0%	40
96h Survival Rate Detail											
Conc-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4						
0	Negative Control		1	1	1						
100			1	1	1						
Graphics											
0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
0	20	40	60	80	100	120					
Conc-%	96h Survival Rate										

**CETIS Measurement Report**

Report Date: 04 Jan-12 15:00 (p 1 of 2)  
 Test Code: 20-7520-1384/ATL1211.173afml

## Fathead Minnow 96-h Acute Survival Test

Aquatic Bioassay &amp; Consulting Labs, Inc.

Batch ID:	01-0879-3803	Test Type:	Survival (96h)	Analyst:	
Start Date:	21 Dec-11 14:02	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Laboratory Water
Ending Date:	25 Dec-11 14:00	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	96h	Source:	Aquatic Biosystems, CO	Age:	
Sample ID:	02-6162-9973	Code:	ATL1211.173afml	Client:	Advanced Technology Laboratories
Sample Date:	20 Dec-11 12:00	Material:	Sample Water	Project:	CH2M Hill- Norwalk
Receive Date:	21 Dec-11 08:50	Source:	Bioassay Report		
Sample Age:	26h (5.2 °C)	Station:	Eff-12-20-2011		

Alkalinity (CaCO<sub>3</sub>)-mg/L

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	62	62	62	62	62	0	0	0.0%	0
100		3	465	465	465	465	465	0	0	0.0%	0
Overall		6	263.5			62	465			0 (0%)	

Conductivity- $\mu$ hos

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	337.3	332.4	342.2	328	354	2.411	14.47	4.29%	0
100		3	2307	2245	2369	2163	2513	30.51	183.1	7.94%	0
Overall		6	1322			328	2513			0 (0%)	

## Dissolved Oxygen-mg/L

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	7.233	7.214	7.253	7.2	7.3	0.00962	0.05772	0.8%	0
100		3	7.567	7.275	7.858	6.8	8.5	0.1437	0.8622	11.39%	0
Overall		6	7.4			6.8	8.5			0 (0%)	

Hardness (CaCO<sub>3</sub>)-mg/L

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	88	88	88	88	88	0	0	0.0%	0
100		3	594	594	594	594	594	0	0	0.0%	0
Overall		6	341			88	594			0 (0%)	

## pH-Units

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	8.067	8.047	8.086	8	8.1	0.009626	0.05775	0.72%	0
100		3	8.033	8.014	8.053	8	8.1	0.009624	0.05774	0.72%	0
Overall		6	8.05			8	8.1			0 (0%)	

## Temperature-°C

Conc-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	24.13	24.06	24.21	24	24.4	0.03849	0.2309	0.96%	0
100		3	24.03	24.01	24.05	24	24.1	0.009607	0.05764	0.24%	0
Overall		6	24.08			24	24.4			0 (0%)	

**CETIS Measurement Report**Report Date: 04 Jan-12 15:00 (p 2 of 2)  
Test Code: 20-7520-1384/ATL1211.173afml**Fathead Minnow 96-h Acute Survival Test****Aquatic Bioassay & Consulting Labs, Inc.****Alkalinity (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1	2	3
0	Negative Contr	62	62	62
100		465	465	465

**Conductivity- $\mu$ mhos**

Conc-%	Control Type	1	2	3
0	Negative Contr	354	328	330
100		2513	2163	2245

**Dissolved Oxygen-mg/L**

Conc-%	Control Type	1	2	3
0	Negative Contr	7.2	7.2	7.3
100		8.5	7.4	6.8

**Hardness (CaCO<sub>3</sub>)-mg/L**

Conc-%	Control Type	1	2	3
0	Negative Contr	88	88	88
100		594	594	594

**pH-Units**

Conc-%	Control Type	1	2	3
0	Negative Contr	8.1	8.1	8
100		8.1	8	8

**Temperature-°C**

Conc-%	Control Type	1	2	3
0	Negative Contr	24	24.4	24
100		24	24.1	24

**CHAIN OF CUSTODY RECORD**

		FOR LABORATORY USE ONLY			
		Method of Transport		Sample Condition Upon Receipt	
		<input checked="" type="checkbox"/> ATL	1. CHILLED	<input type="checkbox"/> N	4. SEALED
		<input type="checkbox"/> Client	2. HEADSPACE (VOA)	<input type="checkbox"/> N	5. # OF SPLS MATCH COC
		<input type="checkbox"/> FedEx	3. CONTAINER INTACT	<input type="checkbox"/> N	Y
		<input type="checkbox"/> GSO		<input type="checkbox"/> N	6. PRESERVED
		<input type="checkbox"/> Other:			
Client:	Advanced Technology Laboratory	Address:	3151 W Post Rd.	City:	Las Vegas
Attention:		Sampler:	<i>John Rodriguez</i>	State:	NV
Project Name:	CH2M Hill -Norwalk	Zip Code:	89118	Fax:	Tel: (702) 307-2659
Relinquished by:	(Signature and Printed Name)	Date:	11/01/11	Time:	14:00
Relinquished by:	(Signature and Printed Name)	Date:	12/23/11	Time:	15:20
Relinquished by:	(Signature and Printed Name)	Date:	12/23/11	Time:	15:20
Relinquished by:	(Signature and Printed Name)	Date:	12/23/11	Time:	15:20
I hereby authorize ATL to perform the work indicated below:	Send Report To:	Bill To:	Special Instructions/Comments: <i>WHR Conf</i>		
Project Mgr/Submitter:	Attn:	Attn:			
Print Name	Co:	Co:			
Date	Addr:	Addr:			
Signature	City:	City:			
	State:	State:			
	Zip:	Zip:			
SPECIFY APPROPRIATE MATRIX					
<input type="checkbox"/> A / Q C	<input type="checkbox"/> RTNE	<input type="checkbox"/> Z	<input type="checkbox"/> R V A T I O N	<input type="checkbox"/> S E R V A T I O N	<input type="checkbox"/> Q A / Q C
<input type="checkbox"/> C T	<input type="checkbox"/> Legal	<input type="checkbox"/> Logcode	<input type="checkbox"/> SWRCB	<input type="checkbox"/> OTHER	<input type="checkbox"/> REMARKS
ACQUISITIONS					
STORMWATER					
WASTEWATER					
GROUND WATER					
DRINKING WATER					
SOIL					
SEDIMENT					
SEAWATER					
FIELD SERVICES					
TESTS/PCB (GNA)					
8070B (Total Metal)					
8075B (DRO)					
8021 (BTEX)					
8022/CAM 17 (6010/2000)					
8023 (PCBs)					
8260B (Noblites)					
8270C (GNA)					
8081A (Pesticides)					
8082A (PCBs)					
8083B (GRO) / 8021 (BTEX)					
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8081A (Pesticides)					
8082A (PCBs)					
8083B (GRO) / 8021 (BTEX)					
8010B (Total Metal)					
8015B (DRO)					
8260B (Noblites)					
8270C (GNA)					
8081A (Pesticides)					
8082A (PCBs)					
8083B (GRO) / 8021 (BTEX)					
8010B (Total Metal)					
8015B (DRO)					
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8010B (Total Metal)					
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8260B (Noblites)					
8270C (GNA)					
8081A (Pesticides)					
8082A (PCBs)					
8083B (GRO) / 8021 (BTEX)					
8010B (Total Metal)					
8015B (DRO)					
8260B (Noblites)					
8270C (GNA)					
8081A (Pesticides)					
8082A (PCBs)					
8083B (GRO) / 8021 (BTEX)					
8010B (Total Metal)					
8015B (DRO)					

# CHAIN OF CUSTODY RECORD

Pg 1 of 1

<b>FOR LABORATORY USE ONLY:</b>											
<b>ADVANCED TECHNOLOGY</b> <b>LABORATORIES</b> 3275 Walnut Ave., Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040 Client: <u>AN - LV</u>			P.O.#: _____ Quote #: _____ Logged By: _____ Date: _____ Relinquished by: (Signature and Printed Name) Relinquished by: (Signature and Printed Name) Relinquished by: (Signature and Printed Name)			Method of Transport <input checked="" type="checkbox"/> ATL <input type="checkbox"/> Client <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other: _____			Sample Condition Upon Receipt <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED		
Attn: _____ City: _____ State: _____ Zip Code: _____ TEL: _____			Attn: _____ City: _____ State: _____ Zip Code: _____ FAX: _____								
<p><b>Project Name:</b> Norwalk Station      <b>Project #:</b> <u>12100-02</u></p> <p><b>Relinquished by:</b> (Signature and Printed Name) <u>John M. H.</u>      <b>Date:</b> <u>12/11/11</u>      <b>Time:</b> <u>10:06</u>      <b>Received by:</b> (Signature and Printed Name) <u>John M. H.</u>      <b>Date:</b> <u>12/11/11</u>      <b>Time:</b> <u>10:06</u></p> <p><b>Relinquished by:</b> (Signature and Printed Name) <u>John M. H.</u>      <b>Date:</b> <u>12/11/11</u>      <b>Time:</b> <u>10:00</u>      <b>Received by:</b> (Signature and Printed Name) <u>John M. H.</u>      <b>Date:</b> <u>12/11/11</u>      <b>Time:</b> <u>10:00</u></p> <p><b>Send Report To:</b>  <b>Attn:</b> _____  <b>Co:</b> _____  <b>Print Name</b> _____ <b>Date</b> _____  <b>Signature</b> _____ </p> <p><b>Bill To:</b>  <b>Attn:</b> _____  <b>Co:</b> _____  <b>Addr:</b> _____  <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ </p> <p><b>Circle or Add Analysis(es) Requested</b>  <input type="checkbox"/> 8010B (GNA)  <input type="checkbox"/> 8015B (DRO)  <input type="checkbox"/> 8015B (Total Metal)  <input type="checkbox"/> 8021C (BTEX)  <input type="checkbox"/> 8022/C (CAM 17 (6010/1700))  <input type="checkbox"/> 8081A (Pesticides)  <input type="checkbox"/> 8260B (Volatiles)  <input type="checkbox"/> 8270C (BNA)  <input type="checkbox"/> 8270C (Volatile)</p> <p><b>SAMPLES - ARCHIVAL &amp; DISPOSAL</b>  Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.</p> <p><b>Storage Fees (applies when storage is requested):</b></p> <ul style="list-style-type: none"> <li>• Sample : \$2.00 / sample / mo (after 45 days)</li> <li>• Records : \$1.00 / ATL workorder / mo (after 1 year)</li> </ul> <p><b>LAB USE ONLY:</b>  <b>T</b> Batch #: _____  <b>E</b> Lab No. _____  <b>M</b> Sample I.D. / Location _____  Date _____ Time _____</p> <p><b>Sample Description</b>  <u>Temp = 15.5°C</u>  <u>Avg HgC ~ 20.1</u></p>											
									<b>Q A / Q C</b> <input type="checkbox"/> RTNE <input type="checkbox"/> CT <input type="checkbox"/> Legal <input type="checkbox"/> SWRCB <input type="checkbox"/> Logcode <input type="checkbox"/> OTHER		
<p><b>Specimen Instructions/Comments:</b></p> <p><b>REMARKS</b></p>											

- TAT starts 8 a.m. following day if samples received after 5 p.m.
- TAT:  **A=** Overnight  **B=** Emergency  **C=** Critical  **D=** Urgent

Container Types: **T**=Tube    **V**=VOA    **L**=Liter    **P**=Pint    **J**=Jar    **B**=Tedral    **G**=Glass    **P**=Plastic    **M**=Metal

Preservatives:  
**H**=HCl    **N**=HNO<sub>3</sub>    **S**=H<sub>2</sub>SO<sub>4</sub>    **C**=4°C  
**Z**=Zn(AC)<sub>2</sub>    **O**=NaOH    **T**=Na<sub>2</sub>SO<sub>3</sub>

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

**CHAIN OF CUSTODY RECORD**

<b>FOR LABORATORY USE ONLY</b>														
						Sample Condition Upon Receipt								
P.O. #: Logged By:			Quote #: Date:			Method of Transport <input checked="" type="checkbox"/> ATL <input type="checkbox"/> FedEx <input type="checkbox"/> GSO <input type="checkbox"/> Other:			1. CHILLED 2. HEADSPACE (VOA) 3. CONTAINER INTACT					
									Y    N    Y    N    Y    N    Y    N    Y    N    Y    N					
									4. SEALED 5. # OF SPLS MATCH COC 6. PRESERVED					
NOTE: Please include your Quote No. to ensure proper pricing of your project.			Address: 3151 W Post Rd. City: Las Vegas			State: NV			Zip Code: 89118					
Client: Advanced Technology Laboratory Attention:			Project #: CH2M Hill -Norwalk Relinquished by: (Signature and Printed Name) Relinquished by: (Signature and Printed Name) Relinquished by: (Signature and Printed Name)			Sampler: <i>Danielle Jabolenski</i> Received by: (Signature and Printed Name) Received by: (Signature and Printed Name) Received by: (Signature and Printed Name)			Tel: (702) 307-2659 Fax: _____					
Project Name: CH2M Hill -Norwalk Relinquished by: (Signature and Printed Name) Relinquished by: (Signature and Printed Name) Relinquished by: (Signature and Printed Name)			Date: 12/24/11 Time: 8:55 Date: 12/24/11 Time: 9:10 Date: 12/24/11 Time: 11:25			Bill To: Attn: _____ Co: _____ Addr: _____			Date: 12/24/11 Time: 8:55 Date: 12/24/11 Time: 9:10 AM Date: 12/24/11 Time: 11:25					
I hereby authorize ATL to perform the work indicated below:			Send Report To: Attn: _____ Co: _____ Addr: _____			Special Instructions/Comments: 24hr Comp Temp: +4.8 <i>invoiced</i>			Date: 12/24/11 Time: 8:55 Date: 12/24/11 Time: 9:10 AM Date: 12/24/11 Time: 11:25					
Project Mgr/Submitter: Print Name _____ Date _____ Signature _____			City: _____ State: _____ Zip: _____			Circle or Add Analyses Requested			SPECIFY APPROPRIATE MATRIX					
Samples/Records -Archival & Disposal Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.			Storage Fees (applies when storage is requested): ■ Sample: \$2.00 / sample /mo (after 45 days) ■ Records: \$1 /ATL workorder /mo (after 1 year)			TTE 22/CAM 17 (6010/7000) Chloride Toxicity 8010B (Total Metal) 8015B (GRD)/8021 (BTEX) 8270C (PCBs) 8280B (Volatile Solubles) 8281A (Pesticides) 6010B (BNA) 8010B (Total Metal) 8015B (GRD)/8021 (BTEX) TTE 22/CAM 17 (6010/7000) Chloride Toxicity 8010B (Total Metal) 8015B (GRD)/8021 (BTEX) 8270C (PCBs) 8280B (Volatile Solubles) 8281A (Pesticides)			TAT # _____ Type _____			QA/QC RTNE CT Legal SWRCB Logcode Z RTNE CT Legal SWRCB Logcode OTHER _____		
LAB USE ONLY: E Lab No. _____ M Batch #: _____			Sample Description Sample ID / Location Date _____ Time _____			X X X X X X E			REMARKS					
TAT: <input type="checkbox"/> A = Overnight <input type="checkbox"/> B = 24 hrs <input type="checkbox"/> C = Critical Next Workday			Emergency _____			D = 3 Workdays			E = 7 Workdays					
Container Types: T=Tube V=VOA L=Liter P=Print J=Jar G=Glass M=Plastic			Preservatives: H=HCl N=HNO <sub>3</sub> S=H <sub>2</sub> SO <sub>4</sub> C=4°C Z=Zn(AC) <sub>2</sub> O=NaOH T=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>			Urgent			Routine					
■ TAT starts 9AM the following day if samples received after 5 PM														



## **Appendix B**

### **Waste Manifests**

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NO. 695813  
25

## NON-HAZARDOUS WASTE DATA FORM

		BESI #	197077
Generator's Name and Mailing Address SPPP, LP. (NORWALK STATION) ATTN: KARINA HANKINS 1100 TOWN & COUNTRY RD. ORANGE, CA 92868		Generator's Site Address (if different than mailing address) SPPP NORWALK STATION 16908 NORWALK BLVD. NORWALK, CA 90650	
Generator's Phone: 714-800-4887		Container type transported to receiving facility: <input type="checkbox"/> Drums <input checked="" type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____	
Container type removed from site: <input type="checkbox"/> Drums <input checked="" type="checkbox"/> Vacuum Truck <input type="checkbox"/> Roll-off Truck <input type="checkbox"/> Dump Truck <input type="checkbox"/> Other _____		Quantity _____ Volume _____	
WASTE DESCRIPTION: NON-HAZARDOUS WATER		GENERATING PROCESS: WELL PURGING / DECON WATER	
COMPONENTS OF WASTE WATER		PPM	%
1. _____		99-100%	3. _____
2. TPH		<1%	4. _____
Waste Profile _____		PROPERTIES: pH 7-10 <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> LIQUID <input type="checkbox"/> SLUDGE <input type="checkbox"/> SLURRY <input type="checkbox"/> OTHER _____	
HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PPE			
ATTN: STEVIE D'FINNAN 6/11			
Generator Printed/Typed Name X JAMES DYE		Signature	
		Month Day Year 10/21/11	
The Generator certifies that the waste as described is 100% non-hazardous			
Transporter 1 Company Name NIETO & SONS TRUCKING, INC.		Phone# 714-880-8866	
Transporter 1 Printed/Typed Name R. Collier		Signature	
		Month Day Year 10/21/11	
Transporter Acknowledgment of Receipt of Materials		Phone#	
Transporter 2 Company Name			
Transporter 2 Printed/Typed Name		Signature	
		Month Day Year	
Transporter Acknowledgment of Receipt of Materials			
Designated Facility Name and Site Address DEMENNO KERDOON 2000 N. ALAMEDA ST. COMPTON, CA 90222 15305 N OR 695205		Phone# 310-637-7100	
Printed/Typed Name Fernando Marquez		Signature	
		Month Day Year 10/31/11	
Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.			

GENERATOR

TRANSPORTER

RECEIVING FACILITY



<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number		
				(626) 423-8209	102111 - 01		
5. Generator's Name and Mailing Address <i>Kinder Morgan Energy Partners 100 Town and Country Rd Orange, CA 92868</i>		Generator's Site Address (if different than mailing address) <i>15306 Newville Blvd Newville, CA 90650</i>					
Generator's Phone:							
6. Transporter 1 Company Name <i>Provinet Systems, Inc.</i>		U.S. EPA ID Number					
7. Transporter 2 Company Name		U.S. EPA ID Number					
8. Designated Facility Name and Site Address		U.S. EPA ID Number					
Facility's Phone:							
<b>GENERATOR</b>	9. Waste Shipping Name and Description <i>Sprint GAC (granular activated carbon)</i>		10. Containers		11. Total Quantity 12. Unit Wt./Vol.		
	1.	No.	Type				
		2	BA				
	2.						
	3.						
4.							
13. Special Handling Instructions and Additional Information							
14. GENERATOR/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 classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.							
Generator's/Officer's Printed/Typed Name <i>Kinder Morgan Energy Partners by Pat Loya</i>		Signature <i>[Signature]</i>		Month	Day	Year	
15. International Shipments		<input type="checkbox"/> Import to U.S.	<input type="checkbox"/> Export from U.S.	Port of entry/exit: _____			
Transporter Signature (for exports only): <i>[Signature]</i>							
<b>TRANSPORTER</b>	16. Transporter Acknowledgment of Receipt of Materials		Signature		Month	Day	Year
	Transporter 1 Printed/Typed Name <i>Provinet Systems Inc by Traci Brungel</i>		<i>[Signature]</i>		10	21	11
	Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy							
17a. Discrepancy Indication Space		<input type="checkbox"/> Quantity	<input type="checkbox"/> Type	<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection	
Manifest Reference Number:							
17b. Alternate Facility (or Generator)		U.S. EPA ID Number					
Facility's Phone:							
17c. Signature of Alternate Facility (or Generator)							
18. Designated Facility Owner or Operator Certification of manifest of materials covered by the manifest consent as noted in Item 17c							



NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone <b>(310) 635-8079</b>	4. Waste Tracking Number <b>KMEP - NORWALK - 121311</b>
5. Generator's Name and Mailing Address <b>SFPP L.P.</b> 1100 TOWN and COUNTRY RD ORANGE, CA 92868 Generator's Phone: 714-560-4400		Generator's Site Address (if different than mailing address) <b>SFPP. L.P. NORWALK TANK FARM</b> 15305 NORWALK Blvd. NORWALK, CA 90650		
6. Transporter 1 Company Name <b>PROMINENT SYSTEMS INC</b>		U.S. EPA ID Number <b>phone #: 626-558-1888</b>		
7. Transporter 2 Company Name		U.S. EPA ID Number		
8. Designated Facility Name and Site Address <b>CALIFORNIA CARBON CO.</b> 2825 E. GRANT ST. WILMINGTON, CA 90744		U.S. EPA ID Number		
Facility's Phone: <b>562-436-1962</b>				
9. Waste Shipping Name and Description 1. <b>NON-HAZ SPENT ACTIVATED CARBON</b>		10. Containers No. <b>4</b>	11. Total Quantity <b>Bag 4,000 lb</b>	12. Unit Wt/Vol.
2.				
3.				
4.				
13. Special Handling Instructions and Additional Information <b>USE PROPER P.P.E</b>				
<b>CALTECH PROFILE # CT-1003207</b>				
Bill to: <b>Steve Defibaugh</b> 1100 Town and Country Orange, CA 92868				
ACCEPTANCE # from California Carbon: <b>10-097-268-B</b> MARKING: <b>NW1-4</b>				
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.				
Generator's/Offeror's Printed/Typed Name <b>Patricia Loya</b>		Signature	Month	Day
				Year
15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____				
Transporter Signature (for exports only):				
16. Transporter Acknowledgment of Receipt of Materials				
Transporter 1 Printed/Typed Name <b>Troy Bresler</b>		Signature	Month <b>12</b>	Day <b>13</b>
				Year <b>11</b>
Transporter 2 Printed/Typed Name <b>Tommy Henslin</b>		Signature	Month <b>12</b>	Day <b>13</b>
				Year <b>12</b>
17. Discrepancy				
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection				
Manifest Reference Number:				
17b. Alternate Facility (or Generator)		U.S. EPA ID Number		
Facility's Phone:				
17c. Signature of Alternate Facility (or Generator)		Month Day Year		
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a				
Printed/Typed Name <b>MHoopringarner</b>		Signature	Month <b>12</b>	Day <b>13</b>
				Year <b>11</b>

GENERATOR

INT'L.

TRANSPORTER

DESIGNATED FACILITY

