PARSONS

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February 13, 2014

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

Subject: Fourth Quarter 2013 Groundwater Discharge Monitoring Report
NPDES No. CAG994004; Compliance File No. CI-7585
DFSP Norwalk Facility, 15306 Norwalk Boulevard, Norwalk, California

In compliance with the subject NPDES Permit, Parsons is submitting this quarterly Discharge Monitoring Report (DMR) on behalf of the Defense Logistics Agency (DLA) Energy for the subject reporting period. The system is installed at the Defense Fuel Support Point Norwalk, at 15306 Norwalk Boulevard, Norwalk, California. This report describes NPDES monitoring activities during the period of October 1 through December 31, 2013.

SUMMARY OF REMEDIATION PROGRESS AND DISCHARGE VOLUMES

Parsons, on behalf of DLA Energy currently operates remediation systems consisting of soil vapor extraction (SVE), groundwater extraction (GWE), and treatment of extracted soil vapors and groundwater to address the entire former tank farm, the former water tank, former truck fueling, and pump house areas.

The GWE systems consists of five vertical extraction wells of which four are 6-inch diameter wells and one is a 4-inch diameter well; three bag filter vessels; two MYCELX vessels; three granular activated carbon (GAC) vessels; and two ion exchange vessels. Four wells; GW-2, GW-13, GW-15, and GW-16; were in operation during this reporting period. The treated groundwater is discharged in accordance with the NPDES permit No.

CAG994004, CI No. 7585. Overall, the GWE system operated 14.6 percent of the time during the fourth quarter of 2013.

The GWE system discharge volumes and field notes are summarized in Table 1. Periodic site visits were conducted to assess and optimize system operation and record operational data. During the fourth quarter of 2013; 304,954 gallons of groundwater were processed and discharged. Total hydrocarbons removed via groundwater treatment during the subject reporting period is 0.0009 gallons (0.0064 pounds). Other than discharge of treated groundwater to the permitted NPDES outfall, no groundwater was managed off-site as an investigation-derived waste.

There were no changes in the operation of the facility that have or would change the character, location, or volume of the groundwater discharge. A summary of the operational periods with dates and groundwater volumes processed is provided in Table 1.

OPERATION, MAINTENANCE, AND MONITORING

Tasks performed for OM&M of the GWE and SVE remediation systems during the reporting period included:

- Weekly maintenance and monitoring of the VES and GWE treatment systems.
- Collecting and analyzing system influent vapor and groundwater samples.
- Changing out MYCELX (MX-7 and MX-21) and bag filters (No. 1, 2, and 3).
- Replacing the ion exchange resin.
- Groundwater compliance samples from the GWE system were collected on December 19th. Compliance samples were not collected during the months of October and November as the system was off-line pending arsenic resin change-out.
- Vapor compliance samples from SVE system were collected on October 30th, November 27th and December 19th.

In addition, system vapor and effluent water samples were collected and analyzed for compliance with the SCAQMD and NPDES permits. Results for the NPDES effluent monitoring will be provided in a subsequent section.

Remediation system inspections were performed on a weekly basis. The GWE and SVE systems operated during the fourth quarter with the following exceptions:

- GWE system was shut down on September 9th and remained off-line through December 18th pending arsenic resin change-out.
- SVE system was off briefly on October 7th to repair a leak in GAC hoses and again on December 2nd to service the blower.

SUMMARY OF COMPLIANCE RESULTS

Representative samples of treated groundwater were collected from the system effluent and analyzed for compounds as required by the Monitoring and Reporting Program (MRP). However, as GWE was off-line for the month of November, the sample collected in December was submitted to laboratory for analysis of MRP annual parameters.

The sample dates and summary of test results are provided in Table 2. A complete set of laboratory reports are provided in Attachment B. Representative sample results indicate concentrations were below detection limits or did not exceed permit required discharge levels.

Compliance samples were submitted a laboratory certified for analyses of requested methods by California Department of Public Health. The laboratory analyzed samples in batches with other samples of similar matrix and analyzed quality control samples with each batch to assess method precision and accuracy. Duplicate sample or matrix spike/matrix spike duplicate sample pairs were analyzed to assess method precision. Matrix spike sample results also demonstrate method accuracy. Method blank and laboratory control sample are analyzed to assess potential laboratory contamination and method accuracy without potential matrix interferences, respectively.

VISUAL OBSERVATIONS

Based on the periodic inspections as documented in Attachment C and referenced in Table 1, the GWE effluent stream was consistently clear and did not contain oil sheen, debris, or other particulate material. No odor has been detected in the effluent sample. Copies of the GWE System Monitoring Logs are provided in Attachment C.

LABORATORY CERTIFICATION

All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services or approved by the Executive Officer and in accordance with current USEPA procedures or as specified in this Monitoring and Reporting Program.

The laboratory's quality control data is attached. A copy of the laboratory certification is provided in Attachment B.

REPORT CERTIFICATION

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

Executed on the 13 day of February 2014, at Pasadena, California.

Sincerely,

Joseph R. Walters, P.E.
Senior Engineer

Redwan Hassan
Project Manager

PARSONS as a duty authorized representative of the Defense Logistics Agency (DLA) Energy.

Attachments

Attachment A	Tables	
	Table 1	Groundwater Treatment System Operational Data
	Table 2	Analytical Results of Effluent Water Samples
Attachment B	Analytical Laboratory Reports and Electronic Submittal Confirmation	
Attachment C	Groundwater Extraction Treatment System Monitoring Logs	

ATTACHMENT A

Tables

Table 1
Groundwater Treatment System Operation Data
DFSP Norwalk
15306 Norwalk Boulevard, Norwalk, CA

Date	Outlet Totalizer (gals)	Monthly Flow (gals)	Comments
Oct-14	***67,532,255***	**-**	System shut down pending arsenic resin change out.
Nov-14	***67,532,255***	**-**	System shut down pending arsenic resin change out.
12/18/13	***67,543,305***	**11,050**	System restarted after resin change out. Changed all 3 bag filters
12/19/13	***67,564,610***	**21,305**	GWTS operating normally. Collected annual NPDES compliance sample.
12/23/13	***67,652,080***	**87,470**	GWTS operating normally.
12/24/13	***67,679,665***	**27,585**	GWTS operating normally.
12/27/13	***67,746,540***	**66,875**	GWTS operating normally.
12/31/13	***67,837,209***	**90,669**	GWTS operating normally.
Dec-13	***304,954***	***304,954***	
Total	**304,954**	**304,954**	**3315 gpd Average Flow Rate for Quarter**

Table 2
Analytical Results of Effluent Water Samples
DFSP Norwalk
15306 Norwalk Boulevard, Norwalk, California

Sampling Frequency		Monthly						Quarterly										Annually
Analytical Method		SM4500 H+B	Field	8015B mod.	EPA8260B		EPA 6020	SM5520B	EPA 6020	SM2130B	SM4500S2-D	SM4500-CL F	SM2540D	SM2540F	SM5540 C	EPA 420.1	EPA 405.1	EPA821R 02012
Date	Sample Loc.	pH	Temp. °C	TPH µg/L	MTBE µg/L	TBA µg/L	Arsenic mg/L	Oil & Grease mg/L	Copper mg/L	Turbidity NTU	Sulfide mg/L	Residual Chlorine mg/L	Total Suspended Solids mg/L	Settleable Solid mL/L/hr	MBAS mg/L	Phenols mg/L	BOD5 20°C mg/L	96 hr Fathead Minnow Survival %
07/05/13	Effluent	---	---	---	---	---	DNQ	---	---	---	---	---	---	---	---	---	---	---
07/12/13	Effluent	7.20	---	ND(100)	ND(0.5)	ND(10)	DNQ	ND(1.0)	DNQ	ND(0.050)	---	---	---	---	---	---	---	---
07/19/13	Effluent	---	---	---	---	---	DNQ	---	---	---	---	---	---	---	---	---	---	---
08/20/13	Effluent	7.07	---	ND(100)	ND(0.5)	ND(10)	DNQ	ND(1.0)	DNQ	DNQ	---	---	---	---	---	---	---	---
08/23/13	Effluent	---	24.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
System shut down September 9th through the end of this reporting period pending arsenic resin change-out.																		
12/19/13	Effluent	7.11	18.9	ND(100)	ND(0.5)	ND(10)	ND(0.001)	ND(1.0)	DNQ	DNQ	ND(0.050)	ND(0.10)	DNQ	ND(0.10)	ND(0.10)	ND(0.10)	ND(1.0	93
Daily Maximum		within 6.5-8.5	100°F (38°C)	100	5	12	0.01	15	0.03	150	1	0.1	75	0.3	0.5	1	30	minimum 90%
Monthly Average				--	--	--	--	10	0.015	50	--	--	50	0.1	--	--	20	--

Notes: Analytical method for metals analysis changed from EPA 6010B to EPA 6020 to obtain lower reporting limit.

* TPH as Diesel result, TPH as Gasoline not detected (reporting limit 100 ug/L)

Bold = Exceedance of standard
-- = not analyzed/not applicable
mg/L = milligram per liter
µg/L = microgram per liter
NTU = nephelometric turbidity units
TPH = total petroleum hydrocarbon

MTBE = methyl-tert-butyl ether
MBAS = methyl blue active substances (sufactants)
MDL = Method detection limit (or Reporting Limit if MDL not provided)
ML= Minimum Reporting Limit (µg/L)
DNQ = Data Not Quantified

ATTACHMENT B

Analytical Laboratory Reports

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-12-1606

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Parsons Government Services, Inc.

Client Project Name: DFSP Norwalk - Annual

Attention: Mary Lucas
100 West Walnut Street
Pasadena, CA 91124-0002

for

Approved for release on 01/06/2014 by:
Ranjit Clarke
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-12-1606

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-12-1606 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 12/19/13. They were assigned to Work Order 13-12-1606.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	**13-12-1606-1-I**	**12/19/13 11:45**	**Aqueous**	**GC 45**	**12/20/13**	**12/21/13 04:54**	**131220B06A**

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	79	68-140	

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	77	68-140	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	**13-12-1606-1-E**	**12/19/13 11:45**	**Aqueous**	**GC 42**	**12/20/13**	**12/21/13 07:03**	**131220B02**

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	70	38-134	

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	71	38-134	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 3020A Total
		Method:	EPA 6020
		Units:	mg/L
Project: DFSP Norwalk - Annual			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	**13-12-1606-1-H**	**12/19/13 11:45**	**Aqueous**	**ICP/MS 03**	**12/20/13**	**12/20/13 23:32**	**131220L04**

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.00100	1	
Copper	0.00195	0.00100	1	
Lead	ND	0.00100	1	
Selenium	ND	0.00100	1	
Zinc	ND	0.00500	1	

Parameter	Result	RL	DF	Qualifiers
Arsenic	ND	0.00100	1	
Copper	ND	0.00100	1	
Lead	ND	0.00100	1	
Selenium	ND	0.00100	1	
Zinc	ND	0.00500	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Effluent	**13-12-1606-1-B**	**12/19/13 11:45**	**Aqueous**	**GC/MS FFF**	**12/27/13**	**12/27/13 23:56**	**131227L03**

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

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	5.0	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	5.0	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 2 of 6

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	0.50	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	5.0	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	0.50	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	0.50	0.24	1	
o-Xylene	ND	0.50	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	107	78-126	
1,2-Dichloroethane-d4	118	75-135	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-001-12827**	**N/A**	**Aqueous**	**GC/MS FFF**	**12/27/13**	**12/27/13 23:29**	**131227L03**

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

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	5.0	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	5.0	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 5 of 6

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	0.50	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	5.0	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	0.50	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	0.50	0.24	1	
o-Xylene	ND	0.50	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	0.50	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: DFSP Norwalk - Annual			Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	117	75-135	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Parsons Government Services, Inc.
100 West Walnut Street
Pasadena, CA 91124-0002
Project: DFSP Norwalk - Annual

Date Received: 12/19/13
Work Order: 13-12-1606

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix
Effluent	**13-12-1606-1**	**12/19/13 11:45**	**Aqueous**

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	12/27/13	12/27/13	EPA 420.1
Turbidity	1.1	0.10	1		NTU	N/A	12/19/13	SM 2130 B
Solids, Total Suspended	1.0	1.0	1		mg/L	12/21/13	12/21/13	SM 2540 D
Solids, Settleable	ND	0.10	1		mL/L/hr	12/19/13	12/19/13	SM 2540 F
pH	6.96	0.01	1	BV,BU	pH units	N/A	12/19/13	SM 4500 H+ B
Sulfide, Total	ND	0.050	1		mg/L	12/23/13	12/23/13	SM 4500 S2 - D
Chlorine, Total Residual	ND	0.10	1	BV,BU	mg/L	N/A	12/19/13	SM 4500-Cl F
Biochemical Oxygen Demand	ND	1.0	1		mg/L	12/19/13	12/24/13	SM 5210 B
Oil and Grease	ND	1.0	1		mg/L	12/27/13	12/27/13	SM 5520 B
MBAS	ND	0.10	1		mg/L	12/20/13	12/20/13	SM 5540C

Parameter	Results	RL	DF	Qualifiers	Units	Date Prepared	Date Analyzed	Method
Phenolics, Total	ND	0.10	1		mg/L	12/27/13	12/27/13	EPA 420.1
Solids, Total Suspended	ND	1.0	1		mg/L	12/21/13	12/21/13	SM 2540 D
Sulfide, Total	ND	0.050	1		mg/L	12/23/13	12/23/13	SM 4500 S2 - D
Chlorine, Total Residual	ND	0.10	1		mg/L	N/A	12/19/13	SM 4500-Cl F
Biochemical Oxygen Demand	ND	1.0	1		mg/L	12/19/13	12/24/13	SM 5210 B
Oil and Grease	ND	1.0	1		mg/L	12/27/13	12/27/13	SM 5520 B
MBAS	ND	0.10	1		mg/L	12/20/13	12/20/13	SM 5540C

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 5540C
Project: DFSP Norwalk - Annual			Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Effluent	**Sample**	**Aqueous**	**UV 9**	**12/20/13**	**12/20/13 19:49**	**D1220SURS1**
Effluent	**Matrix Spike**	**Aqueous**	**UV 9**	**12/20/13**	**12/20/13 19:49**	**D1220SURS1**
Effluent	**Matrix Spike Duplicate**	**Aqueous**	**UV 9**	**12/20/13**	**12/20/13 19:49**	**D1220SURS1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
MBAS	ND	1.000	0.9500	95	0.9400	94	70-130	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: DFSP Norwalk - Annual			Page 2 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-12-1597-1	**Sample**	**Aqueous**	**GC 42**	**12/20/13**	**12/21/13 02:24**	**131220S02**
13-12-1597-1	**Matrix Spike**	**Aqueous**	**GC 42**	**12/20/13**	**12/21/13 02:59**	**131220S02**
13-12-1597-1	**Matrix Spike Duplicate**	**Aqueous**	**GC 42**	**12/20/13**	**12/21/13 03:34**	**131220S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1934	97	1958	98	68-122	1	0-18	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 3020A Total
		Method:	EPA 6020
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Effluent	**Sample**	**Aqueous**	**ICP/MS 03**	**12/20/13**	**12/20/13 23:32**	**131220S04**
Effluent	**Matrix Spike**	**Aqueous**	**ICP/MS 03**	**12/20/13**	**12/20/13 23:15**	**131220S04**
Effluent	**Matrix Spike Duplicate**	**Aqueous**	**ICP/MS 03**	**12/20/13**	**12/20/13 23:18**	**131220S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	ND	0.1000	0.1061	106	0.1076	108	73-127	1	0-11	
Copper	0.001953	0.1000	0.1073	105	0.1086	107	72-108	1	0-10	
Lead	ND	0.1000	0.1135	113	0.1137	114	79-121	0	0-10	
Selenium	ND	0.1000	0.09018	90	0.09485	95	59-125	5	0-12	
Zinc	ND	0.1000	0.09505	95	0.09646	96	43-145	1	0-39	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: DFSP Norwalk - Annual			Page 4 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Effluent	**Sample**	**Aqueous**	**GC/MS FFF**	**12/27/13**	**12/27/13 23:56**	**131227S01**
Effluent	**Matrix Spike**	**Aqueous**	**GC/MS FFF**	**12/27/13**	**12/28/13 00:23**	**131227S01**
Effluent	**Matrix Spike Duplicate**	**Aqueous**	**GC/MS FFF**	**12/27/13**	**12/28/13 00:51**	**131227S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	49.10	98	49.12	98	74-122	0	0-21	
Carbon Tetrachloride	ND	50.00	59.44	119	60.46	121	60-144	2	0-21	
Chlorobenzene	ND	50.00	47.71	95	48.08	96	73-120	1	0-22	
1,2-Dibromoethane	ND	50.00	51.68	103	52.06	104	80-122	1	0-20	
1,2-Dichlorobenzene	ND	50.00	48.92	98	49.79	100	70-120	2	0-26	
1,2-Dichloroethane	ND	50.00	52.72	105	52.30	105	64-142	1	0-20	
1,1-Dichloroethene	ND	50.00	41.68	83	41.21	82	52-136	1	0-21	
Ethylbenzene	ND	50.00	51.35	103	51.64	103	77-125	1	0-24	
Toluene	ND	50.00	49.61	99	49.60	99	72-126	0	0-23	
Trichloroethene	ND	50.00	49.37	99	49.51	99	74-128	0	0-22	
Vinyl Chloride	ND	50.00	51.80	104	52.91	106	67-133	2	0-20	
p/m-Xylene	ND	100.0	100.6	101	101.7	102	63-129	1	0-25	
o-Xylene	ND	50.00	49.96	100	50.59	101	62-128	1	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	43.59	87	43.74	87	68-134	0	0-21	
Tert-Butyl Alcohol (TBA)	ND	250.0	304.5	122	278.9	112	65-143	9	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	50.12	100	45.88	92	61-139	9	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	51.63	103	57.85	116	64-136	11	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	48.20	96	48.73	97	67-133	1	0-20	
Ethanol	ND	500.0	591.9	118	555.8	111	34-178	6	0-58	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Sample Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 2130 B
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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-12-1552-1	**Sample**	**Aqueous**	**TUR 3**	**N/A**	**12/19/13 19:56**	**D1219TURD1**
13-12-1552-1	**Sample Duplicate**	**Aqueous**	**TUR 3**	**N/A**	**12/19/13 19:56**	**D1219TURD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Turbidity	2.800	2.820	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 2540 D
Project: DFSP Norwalk - Annual			Page 2 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-12-1567-1	**Sample**	**Aqueous**	**N/A**	**12/21/13 00:00**	**12/21/13 14:30**	**D1221TSSD1**
13-12-1567-1	**Sample Duplicate**	**Aqueous**	**N/A**	**12/21/13 00:00**	**12/21/13 14:30**	**D1221TSSD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total Suspended	66.00	61.80	7	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 4500 H+ B
Project: DFSP Norwalk - Annual			Page 3 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-12-1549-1	**Sample**	**Aqueous**	**PH 1**	**N/A**	**12/19/13 19:40**	**D1219PHD2**
13-12-1549-1	**Sample Duplicate**	**Aqueous**	**PH 1**	**N/A**	**12/19/13 19:40**	**D1219PHD2**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
pH	6.820	6.820	0	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 4500 S2 - D
Project: DFSP Norwalk - Annual			Page 4 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-12-1749-1	**Sample**	**Aqueous**	**N/A**	**12/23/13 00:00**	**12/23/13 17:28**	**D1223SD1**
13-12-1749-1	**Sample Duplicate**	**Aqueous**	**N/A**	**12/23/13 00:00**	**12/23/13 17:28**	**D1223SD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Sulfide, Total	ND	ND	N/A	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 4500-Cl F
Project: DFSP Norwalk - Annual			Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-12-1552-1	**Sample**	**Aqueous**	**BUR16**	**N/A**	**12/19/13 19:48**	**D1219CLFD1**
13-12-1552-1	**Sample Duplicate**	**Aqueous**	**BUR16**	**N/A**	**12/19/13 19:48**	**D1219CLFD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Chlorine, Total Residual	ND	ND	N/A	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 5210 B
Project: DFSP Norwalk - Annual			Page 6 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
13-12-1552-1	**Sample**	**Aqueous**	**BOD 1**	**12/19/13 00:00**	**12/24/13 19:50**	**D1219BODD1**
13-12-1552-1	**Sample Duplicate**	**Aqueous**	**BOD 1**	**12/19/13 00:00**	**12/24/13 19:50**	**D1219BODD1**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Biochemical Oxygen Demand	5.900	5.900	0	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	EPA 420.1
Project: DFSP Norwalk - Annual			Page 1 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-085-2722	**LCS**	**Aqueous**	**UV 8**	**12/27/13**	**12/27/13 15:25**	**D1227PHEL1**
099-05-085-2722	**LCSD**	**Aqueous**	**UV 8**	**12/27/13**	**12/27/13 15:25**	**D1227PHEL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Phenolics, Total	0.5000	0.4600	92	0.4500	90	80-120	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 2540 D
Project: DFSP Norwalk - Annual			Page 2 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-09-010-6512	**LCS**	**Aqueous**	**N/A**	**12/21/13**	**12/21/13 14:30**	**D1221TSSL1**
099-09-010-6512	**LCSD**	**Aqueous**	**N/A**	**12/21/13**	**12/21/13 14:30**	**D1221TSSL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Solids, Total Suspended	100.0	90.00	90	96.00	96	80-120	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 4500 S2 - D
Project: DFSP Norwalk - Annual			Page 3 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-853-193	**LCS**	**Aqueous**	**N/A**	**12/23/13**	**12/23/13 17:28**	**D1223SL1**
099-15-853-193	**LCSD**	**Aqueous**	**N/A**	**12/23/13**	**12/23/13 17:28**	**D1223SL1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sulfide, Total	1.000	1.200	120	1.200	120	80-120	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 5520 B
Project: DFSP Norwalk - Annual			Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-081-2946	**LCS**	**Aqueous**	**N/A**	**12/27/13**	**12/27/13 19:00**	**D1227OGL2**
099-05-081-2946	**LCSD**	**Aqueous**	**N/A**	**12/27/13**	**12/27/13 19:00**	**D1227OGL2**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Oil and Grease	40.00	39.10	98	37.50	94	80-120	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	N/A
		Method:	SM 5540C
Project: DFSP Norwalk - Annual			Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-05-093-2609	**LCS**	**Aqueous**	**UV 9**	**12/20/13**	**12/20/13 19:49**	**D1220SURL1**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
MBAS	1.000	0.9600	96	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
Project: DFSP Norwalk - Annual			Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-282-160	**LCS**	**Aqueous**	**GC 45**	**12/20/13**	**12/21/13 02:47**	**131220B06A**
099-15-282-160	**LCSD**	**Aqueous**	**GC 45**	**12/20/13**	**12/21/13 03:05**	**131220B06A**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	4000	4407	110	4410	110	75-117	0	0-13	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: DFSP Norwalk - Annual			Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-704-628	**LCS**	**Aqueous**	**GC 42**	**12/20/13**	**12/21/13 01:49**	**131220B02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	2034	102	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 3020A Total
		Method:	EPA 6020
Project: DFSP Norwalk - Annual			Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
096-06-003-4289	**LCS**	**Aqueous**	**ICP/MS 03**	**12/20/13**	**12/20/13 23:12**	**131220L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	0.1000	0.09548	95	80-120	
Copper	0.1000	0.1074	107	80-120	
Lead	0.1000	0.09660	97	80-120	
Selenium	0.1000	0.1016	102	80-120	
Zinc	0.1000	0.1049	105	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Parsons Government Services, Inc.		Date Received:	12/19/13
100 West Walnut Street		Work Order:	13-12-1606
Pasadena, CA 91124-0002		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: DFSP Norwalk - Annual			Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-12827	**LCS**	**Aqueous**	**GC/MS FFF**	**12/27/13**	**12/27/13 22:35**	**131227L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	48.15	96	80-120	73-127	
Carbon Tetrachloride	50.00	58.69	117	67-139	55-151	
Chlorobenzene	50.00	47.43	95	78-120	71-127	
1,2-Dibromoethane	50.00	50.51	101	80-120	73-127	
1,2-Dichlorobenzene	50.00	49.25	99	63-129	52-140	
1,2-Dichloroethane	50.00	51.34	103	70-130	60-140	
1,1-Dichloroethene	50.00	41.21	82	66-126	56-136	
Ethylbenzene	50.00	50.97	102	80-123	73-130	
Toluene	50.00	48.54	97	80-120	73-127	
Trichloroethene	50.00	48.50	97	80-122	73-129	
Vinyl Chloride	50.00	51.26	103	70-130	60-140	
p/m-Xylene	100.0	101.5	101	75-123	67-131	
o-Xylene	50.00	50.07	100	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	42.75	86	69-129	59-139	
Tert-Butyl Alcohol (TBA)	250.0	251.2	100	69-129	59-139	
Diisopropyl Ether (DIPE)	50.00	48.96	98	68-128	58-138	
Ethyl-t-Butyl Ether (ETBE)	50.00	49.68	99	63-135	51-147	
Tert-Amyl-Methyl Ether (TAME)	50.00	47.61	95	67-133	56-144	
Ethanol	500.0	540.2	108	42-168	21-189	

Total number of LCS compounds: 19
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-12-1606

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 12-19-13

PAGE: 1 OF 1

LABORATORY CLIENT: Parsons, Inc.
100 W. Walnut Street
CITY: Paasadena, CA 91124
TEL: FAX: E-MAIL

CLIENT PROJECT NAME / NUMBER: DFSP Norwalk - Annual
PROJECT CONTACT: Mary Lucas / Cindy Zicker
SAMPLER(S): (SIGNATURE) Glenn Andrasko

P.O. NO.:
QUOTE NO.:
LAB USE ONLY 13-12-1606

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS

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

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	Turbidity (SM 2130B) / BOD (SM 5210B)	Oil & Grease (SM 5520B)	pH (SM 4500 H+B) / MBAS (AM 5540C)	TPH gas / TPH diesel (EPA 8015B(M))	VOCs + Oxys (EPA 8260B)	Metals (EPA 6020: As,Cu,Se,Pb,Zn)	Total Suspended Solids (SM 2540D)	Settleable Solids (SM 2540F)	Total Sulfides (SM 4500 S-2)	Phenolics (EPA 420.1)	Residual Chlorine (SM 4500 Cl F)	96hr Acute Tox (Fathead Minnows)	Comments
1	Effluent		12-19-13	1145	W	16	X	X	X	X	X	X	X	X	X	X	X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Glenn Andrasko	Aly Mengy CEL	12-19-13	0800
Aly Mengy	[illegible]	12/19/13	1900

Revised: 08/28/08

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-12-1606

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: PARSONS

DATE: 12/19/13

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.6 °C - 0.2 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 678

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☑ pH ☑ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☑	☐
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Aqueous: ☐VOA ☑VOAh (6) ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☑1AGB**s**

☐500AGB ☑500AGJ ☑500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☑1PB (4) ☐1PB**na** ☐500PB

☐250PB ☑250PB**n$_4$** ☐125PB ☑125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☑1Gal. cube ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** 862

Container: C: Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** 854

Preservative: h: HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** 854

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Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order: 13-12-1606

One or more samples in this work order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1. Aquatic Bioassay & Consulting Laboratories, Inc. - Ventura,CA CA ELAP 1907
   Aquatic Bioassay

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aquatic bioassay & consulting laboratories, inc

January 2, 2014

Mr. Stephen Nowak
Calscience Environmental
7440 Lincoln Way
Garden Grove, CA 92841-1432

Dear Mr. Nowak:

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:	Calscience Environmental
SAMPLE I.D.:	Effluent (13-12-1606)
DATE RECEIVED:	20 Dec - 2013
ABC LAB. NO.:	CSE1213.157

96 HOUR ACUTE FATHEAD MINNOW SURVIVAL BIOASSAY

LC50	=	93 % Survival in 100 % Sample
TU(a)	=	0.50

Yours very truly,

Scott Johnson
Laboratory Director

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CETIS Summary Report

Report Date: 31 Dec-13 11:14 (p 1 of 1)
Test Code: CSE1213.157 | 03-4964-7128

Fathead Minnow 96-h Acute Survival Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	08-8122-0252	**Test Type:**	Survival (96h)	**Analyst:**	
Start Date:	20 Dec-13 15:06	**Protocol:**	EPA/821/R-02-012 (2002)	**Diluent:**	Laboratory Water
Ending Date:	24 Dec-13 13:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	

Sample ID:	01-0310-4118	**Code:**	CSE1213.157	**Client:**	Calscience Environmental Laboratorie
Sample Date:	19 Dec-13 11:45	**Material:**	Sample Water	**Project:**	13-12-1606
Receive Date:	20 Dec-13 11:50	**Source:**	Bioassay Report		
Sample Age:	27h (4 °C)	**Station:**	Effluent		

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
01-3991-7504	96h Survival Rate	100	>100	NA	11.2%	1	Equal Variance t Two-Sample Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
09-4122-7182	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
01-3991-7504	96h Survival Rate	Control Resp	0.9	0.9 - NL	Yes	Passes Acceptability Criteria
09-4122-7182	96h Survival Rate	Control Resp	0.9	0.9 - NL	Yes	Passes Acceptability Criteria

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	4	0.9	0.9	0.9	0.9	0.9	0	0	0.0%	0.0%
100		4	0.925	0.7727	1	0.8	1	0.04787	0.09574	10.35%	-2.78%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.9	0.9	0.9	0.9
100		1	0.8	1	0.9

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	9/10	9/10	9/10	9/10
100		10/10	8/10	10/10	9/10

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CETIS Analytical Report

Report Date:	31 Dec-13 11:14 (p 1 of 2)
Test Code:	CSE1213.157 | 03-4964-7128

Fathead Minnow 96-h Acute Survival Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	01-3991-7504	**Endpoint:**	96h Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	31 Dec-13 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Batch ID:	08-8122-0252	**Test Type:**	Survival (96h)	**Analyst:**	
Start Date:	20 Dec-13 15:06	**Protocol:**	EPA/821/R-02-012 (2002)	**Diluent:**	Laboratory Water
Ending Date:	24 Dec-13 13:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	

Sample ID:	01-0310-4118	**Code:**	CSE1213.157	**Client:**	Calscience Environmental Laboratorie
Sample Date:	19 Dec-13 11:45	**Material:**	Sample Water	**Project:**	13-12-1606
Receive Date:	20 Dec-13 11:50	**Source:**	Bioassay Report		
Sample Age:	27h (4 °C)	**Station:**	Effluent		

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	Test Result
Angular (Corrected)	NA	C > T	NA	NA	11.2%	Passes 96h survival rate

Equal Variance t Two-Sample Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		100	-0.6262	1.943	0.143	6	0.7229	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.004234007	0.004234007	1	0.3921	0.5542	Non-Significant Effect
Error	0.06478542	0.01079757	6			
Total	0.06901943		7			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	10.87	13.75	0.0165	Equal Variances
Variances	Levene Equality of Variance	16.31	13.75	0.0068	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8598	0.6451	0.1195	Normal Distribution
Distribution	Kolmogorov-Smirnov D	0.25	0.3313	0.1599	Normal Distribution
Distribution	Anderson-Darling A2 Normality	0.6793	3.878	0.0761	Normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	4	0.9	0.8998	0.9002	0.9	0.9	0.9	0	0.0%	0.0%
100		4	0.925	0.7727	1	0.95	0.8	1	0.04787	10.35%	-2.78%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Contr	4	1.249	1.249	1.249	1.249	1.249	1.249	0	0.0%	0.0%
100		4	1.295	1.061	1.529	1.331	1.107	1.412	0.07348	11.35%	-3.68%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.9	0.9	0.9	0.9
100		1	0.8	1	0.9

Angular (Corrected) Transformed Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	1.249	1.249	1.249	1.249
100		1.412	1.107	1.412	1.249

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	9/10	9/10	9/10	9/10
100		10/10	8/10	10/10	9/10

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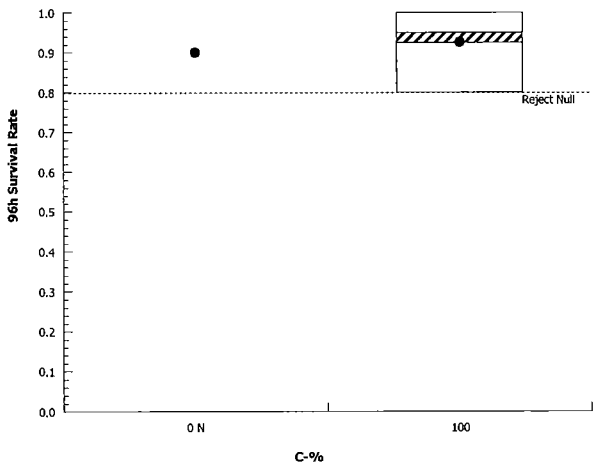
CETIS Analytical Report

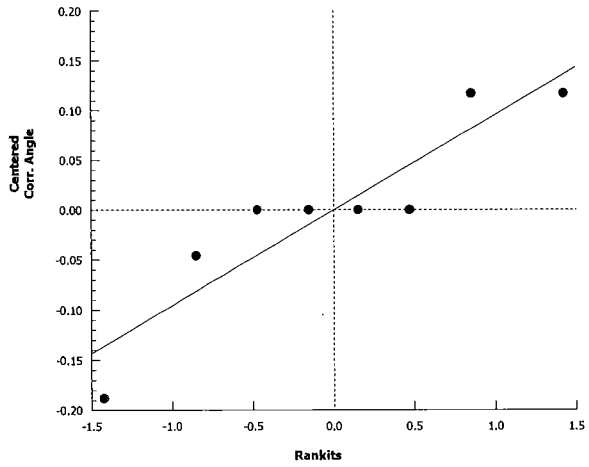
Report Date:	31 Dec-13 11:14 (p 2 of 2)
Test Code:	CSE1213.157 | 03-4964-7128

Fathead Minnow 96-h Acute Survival Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	01-3991-7504	**Endpoint:**	96h Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	31 Dec-13 11:14	**Analysis:**	Parametric-Two Sample	**Official Results:**	Yes

Graphics





CETIS Analytical Report

Report Date:	31 Dec-13 11:14 (p 1 of 1)
Test Code:	CSE1213.157 | 03-4964-7128

Fathead Minnow 96-h Acute Survival Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	09-4122-7182	**Endpoint:**	96h Survival Rate	**CETIS Version:**	CETISv1.8.7
Analyzed:	31 Dec-13 11:14	**Analysis:**	Linear Interpolation (ICPIN)	**Official Results:**	Yes

Batch ID:	08-8122-0252	**Test Type:**	Survival (96h)	**Analyst:**	
Start Date:	20 Dec-13 15:06	**Protocol:**	EPA/821/R-02-012 (2002)	**Diluent:**	Laboratory Water
Ending Date:	24 Dec-13 13:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	

Sample ID:	01-0310-4118	**Code:**	CSE1213.157	**Client:**	Calscience Environmental Laboratorie
Sample Date:	19 Dec-13 11:45	**Material:**	Sample Water	**Project:**	13-12-1606
Receive Date:	20 Dec-13 11:50	**Source:**	Bioassay Report		
Sample Age:	27h (4 °C)	**Station:**	Effluent		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC5	>100	N/A	N/A	<1	NA	NA
EC10	>100	N/A	N/A	<1	NA	NA
EC15	>100	N/A	N/A	<1	NA	NA
EC20	>100	N/A	N/A	<1	NA	NA
EC25	>100	N/A	N/A	<1	NA	NA
EC40	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary

						Calculated Variate(A/B)					
C-%	**Control Type**	**Count**	**Mean**	**Min**	**Max**	**Std Err**	**Std Dev**	**CV%**	**%Effect**	**A**	**B**
0	Negative Control	4	0.9	0.9	0.9	0	0	0.0%	0.0%	36	40
100		4	0.925	0.8	1	0.04787	0.09574	10.35%	-2.78%	37	40

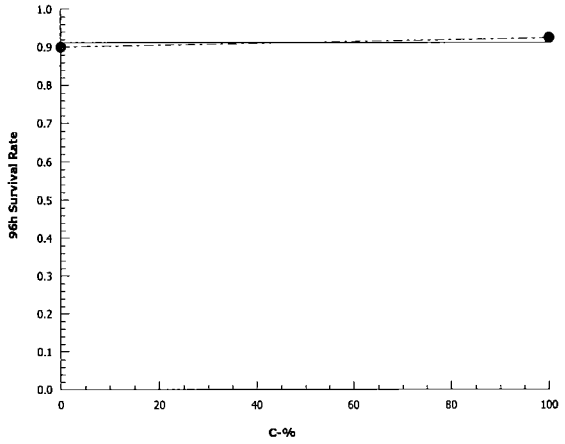
96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	0.9	0.9	0.9	0.9
100		1	0.8	1	0.9

96h Survival Rate Binomials

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4
0	Negative Control	9/10	9/10	9/10	9/10
100		10/10	8/10	10/10	9/10

Graphics



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CETIS Measurement Report

Report Date: 31 Dec-13 11:16 (p 1 of 2)
Test Code: CSE1213.157 | 03-4964-7128

Fathead Minnow 96-h Acute Survival Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	08-8122-0252	**Test Type:**	Survival (96h)	**Analyst:**	
Start Date:	20 Dec-13 15:06	**Protocol:**	EPA/821/R-02-012 (2002)	**Diluent:**	Laboratory Water
Ending Date:	24 Dec-13 13:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Duration:	94h	**Source:**	Aquatic Biosystems, CO	**Age:**	

Sample ID:	01-0310-4118	**Code:**	CSE1213.157	**Client:**	Calscience Environmental Laboratorie
Sample Date:	19 Dec-13 11:45	**Material:**	Sample Water	**Project:**	13-12-1606
Receive Date:	20 Dec-13 11:50	**Source:**	Bioassay Report		
Sample Age:	27h (4 °C)	**Station:**	Effluent		

Alkalinity (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	60.67	59.23	62.1	60	61	0.3333	0.5774	0.95%	0
100		3	532	532	532	532	532	0	0	0.0%	0
Overall		6	296.3			60	532				0 (0%)

Conductivity-µmhos

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	346	339.4	352.6	343	348	1.528	2.646	0.76%	0
100		3	2537	2292	2782	2424	2607	57.04	98.79	3.89%	0
Overall		6	1442			343	2607				0 (0%)

Dissolved Oxygen-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	7.9	6.762	9.038	7.5	8.4	0.2646	0.4583	5.8%	0
100		3	7.133	3.779	10.49	5.8	8.5	0.7796	1.35	18.93%	0
Overall		6	7.517			5.8	8.5				0 (0%)

Hardness (CaCO3)-mg/L

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	94	85.39	102.6	90	96	2	3.464	3.69%	0
100		3	826	826	826	826	826	0	0	0.0%	0
Overall		6	460			90	826				0 (0%)

pH-Units

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	8.167	7.787	8.546	8	8.3	0.08819	0.1527	1.87%	0
100		3	7.4	6.743	8.057	7.2	7.7	0.1528	0.2646	3.58%	0
Overall		6	7.783			7.2	8.3				0 (0%)

Temperature-°C

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	Negative Contr	3	24	24	24	24	24	0	0	0.0%	0
100		3	24.23	23.61	24.86	24	24.5	0.1453	0.2516	1.04%	0
Overall		6	24.12			24	24.5				0 (0%)

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CETIS Measurement Report

Report Date: 31 Dec-13 11:16 (p 2 of 2)
Test Code: CSE1213.157 | 03-4964-7128

Fathead Minnow 96-h Acute Survival Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Alkalinity (CaCO3)-mg/L

C-%	Control Type	1	2	3
0	Negative Contr	60	61	61
100		532	532	532

Conductivity-µmhos

C-%	Control Type	1	2	3
0	Negative Contr	343	348	347
100		2607	2580	2424

Dissolved Oxygen-mg/L

C-%	Control Type	1	2	3
0	Negative Contr	7.8	8.4	7.5
100		5.8	8.5	7.1

Hardness (CaCO3)-mg/L

C-%	Control Type	1	2	3
0	Negative Contr	90	96	96
100		826	826	826

pH-Units

C-%	Control Type	1	2	3
0	Negative Contr	8.3	8.2	8
100		7.2	7.3	7.7

Temperature-°C

C-%	Control Type	1	2	3
0	Negative Contr	24	24	24
100		24.2	24.5	24

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: ABC Labs

CHAIN OF CUSTODY RECORD

DATE: 12/20/13
PAGE: 1 OF 1

LABORATORY CLIENT: Calscience Environmental Laboratories, Inc.
ADDRESS: 7440 Lincoln Way
CITY: Garden Grove, CA 92841-1427
TEL: (714) 895-5494
E-MAIL: avargas@calscience.com

CLIENT PROJECT NAME / NUMBER: 13-12-1606
PROJECT CONTACT: Albert Vargas
SAMPLER(S): (PRINT)

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

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ Normal

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

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	EPA 821/R-02/012	Acute Toxicity - % Survival	Fathead Minnow
	Effluent	12/19/13	1145	W	1	X		
	Temp = 4.0°C							
	Chlorine = <0.1							
	Ammonia = 1.0							

Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:
(CALSCIENCE)		12-20-13	1150
Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by / Affiliation: (Signature)	Date:	Time:

State of California—Health and Human Services Agency
California Department of Public Health

RON CHAPMAN, MD, MPH
Director & State Health Officer

EDMUND G. BROWN JR.
Governor

August 21, 2013

Steven L. Lane
Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427

Dear Steven L. Lane: Certificate No. 03220CA

This is to advise you that the laboratory named above has been accredited under National Environmental Laboratory Accreditation Program (NELAP) as an environmental testing laboratory pursuant to the provisions of the Health and Safety Code (HSC), Division 101, Part 1, Chapter 4, Section 100825, *et seq.*

The Fields of Accreditation for which this laboratory has been accredited are enclosed. Recognition of accreditation is subject to maintaining accreditation with the primary Accreditation Body. In addition, the laboratory shall comply with the National Environmental Laboratory Accreditation Conference (NELAC) Standards and all associated California Environmental Laboratory Accreditation Program Branch (ELAPB) regulations and statutes.

Please note that your laboratory is required to notify California ELAPB of any major changes in key accreditation criteria within 30 calendar days of the change. This written notification includes, but is not limited to, changes in ownership, location, key personnel, and major instrumentation (HSC 100847(b), (c), (d), and NELAC Standard Section 4.3.2). The certificate must be returned to California ELAPB upon loss of accredited status.

Your continued cooperation with the above requirements is essential for maintaining the high quality of the data produced by environmental laboratories accredited by the State of California.

If you have any questions, please contact Rosalinda Lomboy at (818) 551-2014.

Sincerely,

Fred Chosle for

David Mazzera, Ph.D., Assistant Division Chief
Division of Drinking Water and Environmental Management

Enclosure

NELAP RECOGNIZED

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM BRANCH

NELAP Fields of Accreditation

Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone: (714) 895-5494

Certificate No.: 03220CA
Renew Date: 9/30/2014

101 - Microbiology of Drinking Water

101.010	001	SM9215B	Heterotrophic Bacteria
101.011	001	SimPlate	Heterotrophic Bacteria
101.020	001	SM9221A,B	Total Coliform
101.021	001	SM9221E (MTF/EC)	Fecal Coliform
101.050	001	SM9222A,B,C	Total Coliform
101.051	001	SM9221E (MF/EC)	Fecal Coliform
101.060	002	SM9223	Total Coliform
101.060	003	SM9223	E. coli
101.070	002	Colisure	Total Coliform
101.070	003	Colisure	E. coli
101.120	001	SM9221A,B,C	Total Coliform (Enumeration)
101.130	001	SM9221E (MTF/EC)	Fecal Coliform (Enumeration)
101.140	001	SM9222A,B,C	Total Coliform (Enumeration)
101.150	001	SM9222D	Fecal Coliform (Enumeration)
101.160	001	SM9223	Total Coliform (Enumeration)
101.200	001	SM9223B	E. coli (Enumeration)
101.210	001	SM9221B.1/SM9221F	E. coli (Enumeration)
101.220	001	SM9222B/SM9222G	E. coli (Enumeration)

102 - Inorganic Chemistry of Drinking Water

102.020	001	EPA 180.1	Turbidity
102.022	001	SM2130B	Turbidity
102.030	001	EPA 300.0	Bromide
102.030	003	EPA 300.0	Chloride
102.030	005	EPA 300.0	Fluoride
102.030	006	EPA 300.0	Nitrate
102.030	007	EPA 300.0	Nitrite
102.030	008	EPA 300.0	Phosphate, Ortho
102.030	010	EPA 300.0	Sulfate
102.040	001	EPA 300.1	Bromide
102.040	002	EPA 300.1	Chlorite
102.040	003	EPA 300.1	Chlorate
102.040	004	EPA 300.1	Bromate
102.045	001	EPA 314.0	Perchlorate

102.047	001	EPA 331.0	Perchlorate
102.060	001	EPA 353.2	Nitrate calc.
102.061	001	EPA 353.2	Nitrite
102.070	001	EPA 365.1	Phosphate, Ortho
102.100	001	SM2320B	Alkalinity
102.120	001	SM2340B	Hardness
102.121	001	SM2340C	Hardness
102.130	001	SM2510B	Conductivity
102.140	001	SM2540C	Total Dissolved Solids
102.145	001	EPA 160.1	Total Dissolved Solids
102.190	001	SM4500-CN E	Cyanide, Total
102.191	001	SM4500-CN F	Cyanide, Total
102.192	001	SM4500-CN G	Cyanide, amenable
102.200	001	SM4500-F C	Fluoride
102.210	001	SM4500-H+ B	pH
102.212	001	EPA 150.1	pH
102.220	001	SM4500-NO2 B	Nitrite
102.232	001	SM4500-NO3 E	Nitrite
102.232	002	SM4500-NO3 E	Nitrate
102.260	001	SM5310B-2000	Total Organic Carbon
102.261	001	SM5310B-2000	DOC
102.261	002	SM5310B-2000	TOC/DOC
102.264	001	SM5310D	Total Organic Carbon
102.265	001	SM5310D	DOC
102.265	002	SM5310D	TOC/DOC
102.270	001	SM5540C	Surfactants
102.520	001	EPA 200.7	Calcium
102.520	002	EPA 200.7	Magnesium
102.520	003	EPA 200.7	Potassium
102.520	004	EPA 200.7	Silica
102.520	005	EPA 200.7	Sodium
102.520	006	EPA 200.7	Hardness (calc.)
102.550	002	SM4500-Cl F	Chlorine, Free, Combined, Total

103 - Toxic Chemical Elements of Drinking Water

103.130	001	EPA 200.7	Aluminum
103.130	003	EPA 200.7	Barium
103.130	004	EPA 200.7	Beryllium
103.130	005	EPA 200.7	Cadmium
103.130	007	EPA 200.7	Chromium
103.130	008	EPA 200.7	Copper
103.130	009	EPA 200.7	Iron

103.130	011	EPA 200.7	Manganese
103.130	012	EPA 200.7	Nickel
103.130	015	EPA 200.7	Silver
103.130	017	EPA 200.7	Zinc
103.130	018	EPA 200.7	Boron
103.140	001	EPA 200.8	Aluminum
103.140	002	EPA 200.8	Antimony
103.140	003	EPA 200.8	Arsenic
103.140	004	EPA 200.8	Barium
103.140	005	EPA 200.8	Beryllium
103.140	006	EPA 200.8	Cadmium
103.140	007	EPA 200.8	Chromium
103.140	008	EPA 200.8	Copper
103.140	009	EPA 200.8	Lead
103.140	010	EPA 200.8	Manganese
103.140	012	EPA 200.8	Nickel
103.140	013	EPA 200.8	Selenium
103.140	014	EPA 200.8	Silver
103.140	015	EPA 200.8	Thallium
103.140	016	EPA 200.8	Zinc
103.140	017	EPA 200.8	Boron
103.140	018	EPA 200.8	Vanadium
103.160	001	EPA 245.1	Mercury
103.310	001	EPA 218.6	Chromium (VI)

104 - Volatile Organic Chemistry of Drinking Water

104.030	001	EPA 504.1	1,2-Dibromoethane
104.030	002	EPA 504.1	1,2-Dibromo-3-chloropropane
104.040	000	EPA 524.2	Volatile Organic Compounds
104.040	001	EPA 524.2	Benzene
104.040	002	EPA 524.2	Bromobenzene
104.040	003	EPA 524.2	Bromochloromethane
104.040	006	EPA 524.2	Bromomethane
104.040	007	EPA 524.2	n-Butylbenzene
104.040	008	EPA 524.2	sec-Butylbenzene
104.040	009	EPA 524.2	tert-Butylbenzene
104.040	010	EPA 524.2	Carbon Tetrachloride
104.040	011	EPA 524.2	Chlorobenzene
104.040	012	EPA 524.2	Chloroethane
104.040	014	EPA 524.2	Chloromethane
104.040	015	EPA 524.2	2-Chlorotoluene
104.040	016	EPA 524.2	4-Chlorotoluene

104.040	018	EPA 524.2	Dibromomethane
104.040	019	EPA 524.2	1,3-Dichlorobenzene
104.040	020	EPA 524.2	1,2-Dichlorobenzene
104.040	021	EPA 524.2	1,4-Dichlorobenzene
104.040	022	EPA 524.2	Dichlorodifluoromethane
104.040	023	EPA 524.2	1,1-Dichloroethane
104.040	024	EPA 524.2	1,2-Dichloroethane
104.040	025	EPA 524.2	1,1-Dichloroethene
104.040	026	EPA 524.2	cis-1,2-Dichloroethene
104.040	027	EPA 524.2	trans-1,2-Dichloroethene
104.040	028	EPA 524.2	Dichloromethane
104.040	029	EPA 524.2	1,2-Dichloropropane
104.040	030	EPA 524.2	1,3-Dichloropropane
104.040	031	EPA 524.2	2,2-Dichloropropane
104.040	032	EPA 524.2	1,1-Dichloropropene
104.040	033	EPA 524.2	cis-1,3-Dichloropropene
104.040	034	EPA 524.2	trans-1,3-Dichloropropene
104.040	035	EPA 524.2	Ethylbenzene
104.040	036	EPA 524.2	Hexachlorobutadiene
104.040	037	EPA 524.2	Isopropylbenzene
104.040	038	EPA 524.2	4-Isopropyltoluene
104.040	039	EPA 524.2	Naphthalene
104.040	040	EPA 524.2	Nitrobenzene
104.040	041	EPA 524.2	N-propylbenzene
104.040	042	EPA 524.2	Styrene
104.040	043	EPA 524.2	1,1,1,2-Tetrachloroethane
104.040	044	EPA 524.2	1,1,2,2-Tetrachloroethane
104.040	045	EPA 524.2	Tetrachloroethene
104.040	046	EPA 524.2	Toluene
104.040	047	EPA 524.2	1,2,3-Trichlorobenzene
104.040	048	EPA 524.2	1,2,4-Trichlorobenzene
104.040	049	EPA 524.2	1,1,1-Trichloroethane
104.040	050	EPA 524.2	1,1,2-Trichloroethane
104.040	051	EPA 524.2	Trichloroethene
104.040	052	EPA 524.2	Trichlorofluoromethane
104.040	053	EPA 524.2	1,2,3-Trichloropropane
104.040	054	EPA 524.2	1,2,4-Trimethylbenzene
104.040	055	EPA 524.2	1,3,5-Trimethylbenzene
104.040	056	EPA 524.2	Vinyl Chloride
104.040	057	EPA 524.2	Xylenes, Total
104.040	058	EPA 524.2	Hexachloroethane

104.045	001	EPA 524.2	Bromodichloromethane
104.045	002	EPA 524.2	Bromoform
104.045	003	EPA 524.2	Chloroform
104.045	004	EPA 524.2	Dibromochloromethane
104.045	005	EPA 524.2	Trihalomethanes
104.050	002	EPA 524.2	Methyl tert-butyl Ether (MTBE)
104.050	004	EPA 524.2	tert-Amyl Methyl Ether (TAME)
104.050	005	EPA 524.2	Ethyl tert-butyl Ether (ETBE)
104.050	006	EPA 524.2	Trichlorotrifluoroethane
104.050	011	EPA 524.2	Oxygenates

105 - Semi-volatile Organic Chemistry of Drinking Water

105.040	000	EPA 508	Chlorinated Pesticides
105.040	001	EPA 508	Aldrin
105.040	002	EPA 508	Dieldrin
105.040	003	EPA 508	Chlordane (total)
105.040	004	EPA 508	4,4'-DDD
105.040	005	EPA 508	4,4'-DDE
105.040	006	EPA 508	4,4'-DDT
105.040	007	EPA 508	Endrin
105.040	008	EPA 508	Heptachlor
105.040	009	EPA 508	Heptachlor Epoxide
105.040	012	EPA 508	Lindane
105.040	013	EPA 508	Methoxychlor
105.040	015	EPA 508	Toxaphene
105.040	016	EPA 508	PCBs as Aroclors (screen)
105.060	001	EPA 508A	PCBs as Decachlorobiphenyl
105.070	001	EPA 515.1	Bentazon
105.070	002	EPA 515.1	2,4-D
105.070	003	EPA 515.1	Dalapon
105.070	004	EPA 515.1	Dicamba
105.070	005	EPA 515.1	Dinoseb
105.070	006	EPA 515.1	Pentachlorophenol
105.070	007	EPA 515.1	Picloram
105.070	008	EPA 515.1	2,4,5-TP
105.070	009	EPA 515.1	Chlorinated Acids
105.070	010	EPA 515.1	Chlorophenoxy Herbicides
105.090	001	EPA 525.2	Alachlor
105.090	003	EPA 525.2	Atrazine
105.090	004	EPA 525.2	Benzo(a)pyrene
105.090	005	EPA 525.2	Butachlor
105.090	008	EPA 525.2	Di(2-ethylhexyl) Adipate

105.090	009	EPA 525.2	Di(2-ethylhexyl) Phthalate
105.090	016	EPA 525.2	Hexachlorobenzene
105.090	017	EPA 525.2	Hexachlorocyclopentadiene
105.090	022	EPA 525.2	Molinate
105.090	023	EPA 525.2	Pentachlorophenol
105.090	024	EPA 525.2	Propachlor
105.090	029	EPA 525.2	Polynuclear Aromatic Hydrocarbons
105.090	030	EPA 525.2	Adipates
105.090	031	EPA 525.2	Phthalates
105.090	032	EPA 525.2	Other Extractables
105.090	034	EPA 525.2	Pesticides
105.140	001	EPA 548.1	Endothall

107 - Microbiology of Wastewater

107.010	001	SM9215B	Heterotrophic Bacteria
107.020	001	SM9221B	Total Coliform
107.030	001	SM9221B	Total Coliform with Chlorine Present
107.040	001	SM9221C,E (MTF/EC)	Fecal Coliform
107.050	001	SM9221E	Fecal Coliform with Chlorine Present
107.060	001	SM9222B	Total Coliform
107.070	001	SM9222B + B.5c	Total Coliform with Chlorine Present
107.080	001	SM9222D	Fecal Coliform
107.090	001	SM9222D	Fecal Coliform with Chlorine Present
107.100	001	SM9230B	Fecal Streptococci
107.100	002	SM9230B	Enterococci
107.110	001	SM9230C (MF/ME)	Fecal Streptococci
107.110	002	SM9230C (MF/ME)	Enterococci
107.242	001	Enterolert	Enterococci
107.245	001	SM9223	E. coli

108 - Inorganic Chemistry of Wastewater

108.020	001	EPA 120.1	Conductivity
108.090	001	EPA 160.4	Residue, Volatile
108.110	001	EPA 180.1	Turbidity
108.112	001	EPA 200.7	Boron
108.112	002	EPA 200.7	Calcium
108.112	003	EPA 200.7	Hardness (calc.)
108.112	004	EPA 200.7	Magnesium
108.112	005	EPA 200.7	Potassium
108.112	006	EPA 200.7	Silica
108.112	007	EPA 200.7	Sodium
108.113	001	EPA 200.8	Boron
108.113	002	EPA 200.8	Calcium

108.113	003	EPA 200.8	Magnesium
108.113	004	EPA 200.8	Potassium
108.113	005	EPA 200.8	Silica
108.113	006	EPA 200.8	Sodium
108.120	001	EPA 300.0	Bromide
108.120	002	EPA 300.0	Chloride
108.120	003	EPA 300.0	Fluoride
108.120	004	EPA 300.0	Nitrate
108.120	005	EPA 300.0	Nitrite
108.120	006	EPA 300.0	Nitrate-nitrite
108.120	007	EPA 300.0	Phosphate, Ortho
108.120	008	EPA 300.0	Sulfate
108.121	001	EPA 300.1	Bromide
108.200	001	EPA 350.1	Ammonia
108.211	001	EPA 351.2	Kjeldahl Nitrogen
108.260	001	EPA 365.1	Phosphate, Ortho
108.261	001	EPA 365.1	Phosphorus, Total
108.264	001	EPA 365.3	Phosphate, Ortho
108.265	001	EPA 365.3	Phosphorus, Total
108.266	001	EPA 365.4	Phosphorus, Total
108.323	001	EPA 410.4	Chemical Oxygen Demand
108.350	001	EPA 418.1	Total Recoverable Petroleum Hydrocarbons
108.360	001	EPA 420.1	Phenols, Total
108.381	001	EPA 1664A	Oil and Grease
108.390	001	SM2130B	Turbidity
108.400	001	SM2310B	Acidity
108.410	001	SM2320B	Alkalinity
108.420	001	SM2340B	Hardness (calc.)
108.421	001	SM2340C	Hardness
108.430	001	SM2510B	Conductivity
108.440	001	SM2540B	Residue, Total
108.441	001	SM2540C	Residue, Filterable
108.442	001	SM2540D	Residue, Non-filterable
108.443	001	SM2540F	Residue, Settleable
108.451	001	SM4500-Cl- C	Chloride
108.464	001	SM4500-Cl F	Chlorine, Total
108.472	001	SM4500-CN E	Cyanide, Total
108.473	001	SM4500-CN G	Cyanide, amenable
108.474	001	SM4500-CN F	Cyanide, Total
108.480	001	SM4500-F C	Fluoride
108.490	001	SM4500-H+ B	pH

108.491	001	SM4500-NH3 C (18th)	Ammonia
108.492	001	SM4500-NH3 C (19th/20th)	Ammonia
108.492	002	SM4500-NH3 C (19th/20th)	Kjeldahl Nitrogen
108.494	001	SM4500-NH3 F or G (18th)	Ammonia
108.510	001	SM4500-NO2 B	Nitrite
108.520	001	SM4500-NO3 E	Nitrate-nitrite
108.520	002	SM4500-NO3 E	Nitrite
108.531	001	SM4500-O G	Dissolved Oxygen
108.540	001	SM4500-P E	Phosphate, Ortho
108.560	001	SM4500-SO3 B	Sulfite
108.580	001	SM4500-S= D	Sulfide
108.590	001	SM5210B	Biochemical Oxygen Demand
108.591	001	SM5210B	Carbonaceous BOD
108.602	001	SM5220D	Chemical Oxygen Demand
108.610	001	SM5310B-2000	Total Organic Carbon
108.612	001	SM5310D	Total Organic Carbon
108.630	001	SM5520B (20th)	Oil and Grease
108.640	001	SM5540C	Surfactants
108.700	001	ASTM D516-90	Sulfate

109 - Toxic Chemical Elements of Wastewater

109.010	001	EPA 200.7	Aluminum
109.010	002	EPA 200.7	Antimony
109.010	003	EPA 200.7	Arsenic
109.010	004	EPA 200.7	Barium
109.010	005	EPA 200.7	Beryllium
109.010	007	EPA 200.7	Cadmium
109.010	009	EPA 200.7	Chromium
109.010	010	EPA 200.7	Cobalt
109.010	011	EPA 200.7	Copper
109.010	012	EPA 200.7	Iron
109.010	013	EPA 200.7	Lead
109.010	015	EPA 200.7	Manganese
109.010	016	EPA 200.7	Molybdenum
109.010	017	EPA 200.7	Nickel
109.010	019	EPA 200.7	Selenium
109.010	021	EPA 200.7	Silver
109.010	023	EPA 200.7	Thallium
109.010	024	EPA 200.7	Tin
109.010	026	EPA 200.7	Vanadium
109.010	027	EPA 200.7	Zinc
109.020	001	EPA 200.8	Aluminum

109.020	002	EPA 200.8	Antimony
109.020	003	EPA 200.8	Arsenic
109.020	004	EPA 200.8	Barium
109.020	005	EPA 200.8	Beryllium
109.020	006	EPA 200.8	Cadmium
109.020	007	EPA 200.8	Chromium
109.020	008	EPA 200.8	Cobalt
109.020	009	EPA 200.8	Copper
109.020	010	EPA 200.8	Lead
109.020	011	EPA 200.8	Manganese
109.020	012	EPA 200.8	Molybdenum
109.020	013	EPA 200.8	Nickel
109.020	014	EPA 200.8	Selenium
109.020	015	EPA 200.8	Silver
109.020	016	EPA 200.8	Thallium
109.020	017	EPA 200.8	Vanadium
109.020	018	EPA 200.8	Zinc
109.020	020	EPA 200.8	Gold
109.020	021	EPA 200.8	Iron
109.020	022	EPA 200.8	Tin
109.020	023	EPA 200.8	Titanium
109.104	001	EPA 218.6	Chromium (VI)
109.190	001	EPA 245.1	Mercury
109.361	001	EPA 1631E	Mercury

110 - Volatile Organic Chemistry of Wastewater

110.020	000	EPA 602	Aromatic Volatiles
110.020	001	EPA 602	Benzene
110.020	002	EPA 602	Chlorobenzene
110.020	003	EPA 602	1,2-Dichlorobenzene
110.020	004	EPA 602	1,3-Dichlorobenzene
110.020	005	EPA 602	1,4-Dichlorobenzene
110.020	006	EPA 602	Ethylbenzene
110.020	007	EPA 602	Toluene
110.040	001	EPA 624	Benzene
110.040	002	EPA 624	Bromodichloromethane
110.040	003	EPA 624	Bromoform
110.040	004	EPA 624	Bromomethane
110.040	005	EPA 624	Carbon Tetrachloride
110.040	006	EPA 624	Chlorobenzene
110.040	007	EPA 624	Chloroethane
110.040	008	EPA 624	2-Chloroethyl Vinyl Ether

110.040	009	EPA 624	Chloroform
110.040	010	EPA 624	Chloromethane
110.040	011	EPA 624	Dibromochloromethane
110.040	012	EPA 624	1,2-Dichlorobenzene
110.040	013	EPA 624	1,3-Dichlorobenzene
110.040	014	EPA 624	1,4-Dichlorobenzene
110.040	015	EPA 624	1,1-Dichloroethane
110.040	016	EPA 624	1,2-Dichloroethane
110.040	017	EPA 624	1,1-Dichloroethene
110.040	018	EPA 624	trans-1,2-Dichloroethene
110.040	019	EPA 624	1,2-Dichloropropane
110.040	020	EPA 624	cis-1,3-Dichloropropene
110.040	021	EPA 624	trans-1,3-Dichloropropene
110.040	022	EPA 624	Ethylbenzene
110.040	023	EPA 624	Methylene Chloride
110.040	024	EPA 624	1,1,2,2-Tetrachloroethane
110.040	025	EPA 624	Tetrachloroethene
110.040	026	EPA 624	Toluene
110.040	027	EPA 624	1,1,1-Trichloroethane
110.040	028	EPA 624	1,1,2-Trichloroethane
110.040	029	EPA 624	Trichloroethene
110.040	030	EPA 624	Trichlorofluoromethane
110.040	031	EPA 624	Vinyl Chloride
110.040	040	EPA 624	Halogenated Hydrocarbons
110.040	041	EPA 624	Aromatic Compounds
110.040	042	EPA 624	Oxygenates
110.040	043	EPA 624	Other Volatile Organics

111 - Semi-volatile Organic Chemistry of Wastewater

111.060	000	EPA 610	Polynuclear Aromatics
111.060	001	EPA 610	Acenaphthene
111.060	002	EPA 610	Acenaphthylene
111.060	003	EPA 610	Anthracene
111.060	004	EPA 610	Benz(a)anthracene
111.060	005	EPA 610	Benzo(a)pyrene
111.060	006	EPA 610	Benzo(b)fluoranthene
111.060	007	EPA 610	Benzo(k)fluoranthene
111.060	008	EPA 610	Benzo(g,h,i)perylene
111.060	009	EPA 610	Chrysene
111.060	010	EPA 610	Dibenz(a,h)anthracene
111.060	011	EPA 610	Fluoranthene
111.060	012	EPA 610	Fluorene

111.060	013	EPA 610	Indeno(1,2,3-c,d)pyrene
111.060	014	EPA 610	Naphthalene
111.060	015	EPA 610	Phenanthrene
111.060	016	EPA 610	Pyrene
111.100	001	EPA 625	Acenaphthene
111.100	002	EPA 625	Acenaphthylene
111.100	003	EPA 625	Anthracene
111.100	004	EPA 625	Benzidine
111.100	005	EPA 625	Benz(a)anthracene
111.100	006	EPA 625	Benzo(b)fluoranthene
111.100	007	EPA 625	Benzo(k)fluoranthene
111.100	008	EPA 625	Benzo(g,h,i)perylene
111.100	009	EPA 625	Benzo(a)pyrene
111.100	010	EPA 625	Benzyl Butyl Phthalate
111.100	011	EPA 625	bis(2-chloroethoxy)methane
111.100	012	EPA 625	bis(2-chloroethyl) Ether
111.100	013	EPA 625	Bis(2-chloroisopropyl) Ether
111.100	014	EPA 625	Di(2-ethylhexyl) Phthalate
111.100	015	EPA 625	4-Bromophenyl Phenyl Ether
111.100	016	EPA 625	4-Chloro-3-methylphenol
111.100	017	EPA 625	2-Chloronaphthalene
111.100	018	EPA 625	2-Chlorophenol
111.100	019	EPA 625	4-Chlorophenyl Phenyl Ether
111.100	020	EPA 625	Chrysene
111.100	021	EPA 625	Dibenz(a,h)anthracene
111.100	025	EPA 625	3,3'-Dichlorobenzidine
111.100	026	EPA 625	2,4-Dichlorophenol
111.100	027	EPA 625	Diethyl Phthalate
111.100	028	EPA 625	2,4-Dimethylphenol
111.100	029	EPA 625	Dimethyl Phthalate
111.100	030	EPA 625	Di-n-butyl phthalate
111.100	031	EPA 625	Di-n-octyl phthalate
111.100	032	EPA 625	2,4-Dinitrophenol
111.100	033	EPA 625	2,4-Dinitrotoluene
111.100	034	EPA 625	2,6-Dinitrotoluene
111.100	035	EPA 625	Fluoranthene
111.100	036	EPA 625	Fluorene
111.100	037	EPA 625	Hexachlorobenzene
111.100	038	EPA 625	Hexachlorobutadiene
111.100	039	EPA 625	Hexachlorocyclopentadiene
111.100	040	EPA 625	Hexachloroethane

111.100	041	EPA 625	Indeno(1,2,3-c,d)pyrene
111.100	042	EPA 625	Isophorone
111.100	043	EPA 625	2-Methyl-4,6-dinitrophenol
111.100	044	EPA 625	Naphthalene
111.100	045	EPA 625	Nitrobenzene
111.100	046	EPA 625	2-Nitrophenol
111.100	047	EPA 625	4-Nitrophenol
111.100	048	EPA 625	N-nitrosodimethylamine
111.100	049	EPA 625	N-nitroso-di-n-propylamine
111.100	050	EPA 625	N-nitrosodiphenylamine
111.100	051	EPA 625	Pentachlorophenol
111.100	052	EPA 625	Phenanthrene
111.100	053	EPA 625	Phenol
111.100	054	EPA 625	Pyrene
111.100	055	EPA 625	1,2,4-Trichlorobenzene
111.100	056	EPA 625	2,4,6-Trichlorophenol
111.101	032	EPA 625	Polynuclear Aromatic Hydrocarbons
111.101	033	EPA 625	Adipates
111.101	034	EPA 625	Phthalates
111.101	036	EPA 625	Other Extractables
111.120	000	EPA 1625	Semi-volatile Organics
111.170	001	EPA 608	Aldrin
111.170	002	EPA 608	a-BHC
111.170	003	EPA 608	b-BHC
111.170	004	EPA 608	d-BHC
111.170	005	EPA 608	g-BHC (Lindane)
111.170	006	EPA 608	Chlordane
111.170	007	EPA 608	4,4'-DDD
111.170	008	EPA 608	4,4'-DDE
111.170	009	EPA 608	4,4'-DDT
111.170	010	EPA 608	Dieldrin
111.170	011	EPA 608	Endosulfan I
111.170	012	EPA 608	Endosulfan II
111.170	013	EPA 608	Endosulfan Sulfate
111.170	014	EPA 608	Endrin
111.170	015	EPA 608	Endrin Aldehyde
111.170	016	EPA 608	Heptachlor
111.170	017	EPA 608	Heptachlor Epoxide
111.170	018	EPA 608	Toxaphene
111.170	019	EPA 608	PCB-1016
111.170	020	EPA 608	PCB-1221

111.170	021	EPA 608	PCB-1232
111.170	022	EPA 608	PCB-1242
111.170	023	EPA 608	PCB-1248
111.170	024	EPA 608	PCB-1254
111.170	025	EPA 608	PCB-1260
111.170	030	EPA 608	Organochlorine Pesticides
111.170	031	EPA 608	PCBs
111.270	001	EPA 413.1	Oil and Grease
111.272	001	SM5520B (20th)	Oil and Grease
111.273	001	EPA 1664A	Oil and Grease

114 - Inorganic Chemistry of Hazardous Waste

114.010	001	EPA 6010B	Antimony
114.010	002	EPA 6010B	Arsenic
114.010	003	EPA 6010B	Barium
114.010	004	EPA 6010B	Beryllium
114.010	005	EPA 6010B	Cadmium
114.010	006	EPA 6010B	Chromium
114.010	007	EPA 6010B	Cobalt
114.010	008	EPA 6010B	Copper
114.010	009	EPA 6010B	Lead
114.010	010	EPA 6010B	Molybdenum
114.010	011	EPA 6010B	Nickel
114.010	012	EPA 6010B	Selenium
114.010	013	EPA 6010B	Silver
114.010	014	EPA 6010B	Thallium
114.010	015	EPA 6010B	Vanadium
114.010	016	EPA 6010B	Zinc
114.020	001	EPA 6020	Antimony
114.020	002	EPA 6020	Arsenic
114.020	003	EPA 6020	Barium
114.020	004	EPA 6020	Beryllium
114.020	005	EPA 6020	Cadmium
114.020	006	EPA 6020	Chromium
114.020	007	EPA 6020	Cobalt
114.020	008	EPA 6020	Copper
114.020	009	EPA 6020	Lead
114.020	010	EPA 6020	Molybdenum
114.020	011	EPA 6020	Nickel
114.020	012	EPA 6020	Selenium
114.020	013	EPA 6020	Silver
114.020	014	EPA 6020	Thallium

114.020	015	EPA 6020	Vanadium
114.020	016	EPA 6020	Zinc
114.103	001	EPA 7196A	Chromium (VI)
114.106	001	EPA 7199	Chromium (VI)
114.130	001	EPA 7420	Lead
114.140	001	EPA 7470A	Mercury
114.141	001	EPA 7471A	Mercury
114.222	001	EPA 9014	Cyanide
114.230	001	EPA 9034	Sulfides, Total
114.240	001	EPA 9040B	Corrosivity - pH Determination
114.241	001	EPA 9045C	Corrosivity - pH Determination
114.250	001	EPA 9056	Fluoride
114.270	001	EPA 9214	Fluoride

115 - Extraction Test of Hazardous Waste

115.020	001	EPA 1311	Toxicity Characteristic Leaching Procedure (TCLP)
115.030	001	CCR Chapter11, Article 5, Appendix II	Waste Extraction Test (WET)
115.040	001	EPA 1312	Synthetic Precipitation Leaching Procedure (SPLP)

116 - Volatile Organic Chemistry of Hazardous Waste

116.020	009	EPA 8015B	Ethanol
116.020	013	EPA 8015B	Isobutyl Alcohol
116.020	014	EPA 8015B	Isopropyl Alcohol
116.020	015	EPA 8015B	Methanol
116.020	031	EPA 8015B	Ethanol and Methanol
116.030	001	EPA 8015B	Gasoline-range Organics
116.040	002	EPA 8021B	Benzene
116.040	023	EPA 8021B	1,2-Dichlorobenzene
116.040	024	EPA 8021B	1,3-Dichlorobenzene
116.040	025	EPA 8021B	1,4-Dichlorobenzene
116.040	039	EPA 8021B	Ethylbenzene
116.040	041	EPA 8021B	Methyl tert-butyl Ether (MTBE)
116.040	047	EPA 8021B	Toluene
116.040	056	EPA 8021B	Xylenes, Total
116.040	062	EPA 8021B	BTEX
116.080	000	EPA 8260B	Volatile Organic Compounds
116.080	001	EPA 8260B	Acetone
116.080	002	EPA 8260B	Acetonitrile
116.080	003	EPA 8260B	Acrolein
116.080	004	EPA 8260B	Acrylonitrile
116.080	005	EPA 8260B	Allyl Alcohol
116.080	006	EPA 8260B	Allyl Chloride
116.080	007	EPA 8260B	Benzene

116.080	008	EPA 8260B	Benzyl Chloride
116.080	009	EPA 8260B	Bromoacetone
116.080	010	EPA 8260B	Bromochloromethane
116.080	011	EPA 8260B	Bromodichloromethane
116.080	012	EPA 8260B	Bromoform
116.080	013	EPA 8260B	Bromomethane
116.080	014	EPA 8260B	n-Butyl Alcohol
116.080	015	EPA 8260B	Carbon Disulfide
116.080	016	EPA 8260B	Carbon Tetrachloride
116.080	017	EPA 8260B	Chloral Hydrate
116.080	018	EPA 8260B	Chlorobenzene
116.080	019	EPA 8260B	Chloroethane
116.080	020	EPA 8260B	2-Chloroethyl Vinyl Ether
116.080	021	EPA 8260B	Chloroform
116.080	022	EPA 8260B	Chloromethane
116.080	023	EPA 8260B	Chloroprene
116.080	024	EPA 8260B	3-Chloropropionitrile
116.080	025	EPA 8260B	Crotonaldehyde
116.080	026	EPA 8260B	Dibromochloromethane
116.080	027	EPA 8260B	Dibromochloropropane
116.080	028	EPA 8260B	1,2-Dibromoethane
116.080	029	EPA 8260B	Dibromofluoromethane
116.080	030	EPA 8260B	Dibromomethane
116.080	031	EPA 8260B	1,2-Dichlorobenzene
116.080	032	EPA 8260B	1,3-Dichlorobenzene
116.080	033	EPA 8260B	1,4-Dichlorobenzene
116.080	034	EPA 8260B	cis-1,4-Dichloro-2-butene
116.080	035	EPA 8260B	trans-1,4-Dichloro-2-butene
116.080	036	EPA 8260B	Dichlorodifluoromethane
116.080	037	EPA 8260B	1,1-Dichloroethane
116.080	038	EPA 8260B	1,2-Dichloroethane
116.080	039	EPA 8260B	1,1-Dichloroethene
116.080	040	EPA 8260B	trans-1,2-Dichloroethene
116.080	041	EPA 8260B	cis-1,2-Dichloroethene
116.080	042	EPA 8260B	1,2-Dichloropropane
116.080	043	EPA 8260B	1,3-Dichloropropane
116.080	044	EPA 8260B	2,2-Dichloropropane
116.080	045	EPA 8260B	1,1-Dichloropropene
116.080	046	EPA 8260B	cis-1,3-Dichloropropene
116.080	047	EPA 8260B	trans-1,3-Dichloropropene
116.080	048	EPA 8260B	1,3-Dichloro-2-propanol

116.080	049	EPA 8260B	1,2,3,4-Diepoxybutane
116.080	050	EPA 8260B	1,4-Dioxane
116.080	051	EPA 8260B	Epichlorohydrin
116.080	052	EPA 8260B	Ethyl Acetate
116.080	053	EPA 8260B	Ethylbenzene
116.080	054	EPA 8260B	Ethylene Oxide
116.080	055	EPA 8260B	Ethyl Methacrylate
116.080	056	EPA 8260B	Hexachlorobutadiene
116.080	057	EPA 8260B	Hexachloroethane
116.080	058	EPA 8260B	2-Hexanone (MBK)
116.080	059	EPA 8260B	Iodomethane
116.080	060	EPA 8260B	Isobutyl Alcohol
116.080	061	EPA 8260B	Malononitrile
116.080	062	EPA 8260B	Methacrylonitrile
116.080	063	EPA 8260B	Methanol
116.080	064	EPA 8260B	Methyl tert-butyl Ether (MTBE)
116.080	065	EPA 8260B	Methylene Chloride
116.080	066	EPA 8260B	Methyl Ethyl Ketone
116.080	067	EPA 8260B	Methyl Methacrylate
116.080	068	EPA 8260B	4-Methyl-2-pentanone (MIBK)
116.080	069	EPA 8260B	Naphthalene
116.080	070	EPA 8260B	Nitrobenzene
116.080	071	EPA 8260B	2-Nitropropane
116.080	072	EPA 8260B	N-nitroso-di-n-butylamine
116.080	073	EPA 8260B	Paraldehyde
116.080	074	EPA 8260B	Pentachloroethane
116.080	075	EPA 8260B	Pentafluorobenzene
116.080	076	EPA 8260B	2-Picoline
116.080	077	EPA 8260B	Propargyl Alcohol
116.080	078	EPA 8260B	Propionitrile
116.080	079	EPA 8260B	N-propylamine
116.080	080	EPA 8260B	Pyridine
116.080	081	EPA 8260B	1,1,1,2-Tetrachloroethane
116.080	082	EPA 8260B	1,1,2,2-Tetrachloroethane
116.080	083	EPA 8260B	Tetrachloroethene
116.080	084	EPA 8260B	Toluene
116.080	085	EPA 8260B	o-Toluidine
116.080	086	EPA 8260B	1,2,3-Trichlorobenzene
116.080	087	EPA 8260B	1,2,4-Trichlorobenzene
116.080	088	EPA 8260B	1,1,1-Trichloroethane
116.080	089	EPA 8260B	1,1,2-Trichloroethane

116.080	090	EPA 8260B	Trichloroethene
116.080	091	EPA 8260B	Trichlorofluoromethane
116.080	092	EPA 8260B	1,2,3-Trichloropropane
116.080	093	EPA 8260B	Vinyl Acetate
116.080	094	EPA 8260B	Vinyl Chloride
116.080	095	EPA 8260B	Xylenes, Total
116.080	096	EPA 8260B	tert-Amyl Methyl Ether (TAME)
116.080	097	EPA 8260B	tert-Butyl Alcohol (TBA)
116.080	098	EPA 8260B	Ethyl tert-butyl Ether (ETBE)
116.080	099	EPA 8260B	Bromobenzene
116.080	100	EPA 8260B	n-Butylbenzene
116.080	101	EPA 8260B	sec-Butylbenzene
116.080	102	EPA 8260B	tert-Butylbenzene
116.080	103	EPA 8260B	2-Chlorotoluene
116.080	104	EPA 8260B	4-Chlorotoluene
116.080	105	EPA 8260B	Isopropylbenzene
116.080	106	EPA 8260B	N-propylbenzene
116.080	107	EPA 8260B	Styrene
116.080	108	EPA 8260B	1,2,4-Trimethylbenzene
116.080	109	EPA 8260B	1,3,5-Trimethylbenzene
116.080	120	EPA 8260B	Oxygenates
116.100	001	LUFT GC/MS	Total Petroleum Hydrocarbons - Gasoline
116.100	002	LUFT GC/MS	Benzene
116.100	003	LUFT GC/MS	Toluene
116.100	004	LUFT GC/MS	Xylenes
116.100	005	LUFT GC/MS	Methyl tert-butyl Ether (MTBE)
116.100	010	LUFT GC/MS	BTEX and MTBE
116.110	001	LUFT	Total Petroleum Hydrocarbons - Gasoline

117 - Semi-volatile Organic Chemistry of Hazardous Waste

117.010	001	EPA 8015B	Diesel-range Total Petroleum Hydrocarbons
117.016	001	LUFT	Diesel-range Total Petroleum Hydrocarbons
117.017	001	EPA 418.1	TRPH Screening
117.110	000	EPA 8270C	Extractable Organics
117.110	001	EPA 8270C	Acenaphthene
117.110	002	EPA 8270C	Acenaphthylene
117.110	003	EPA 8270C	Acetophenone
117.110	004	EPA 8270C	2-Acetylaminofluorene
117.110	005	EPA 8270C	1-Acetyl-2-thiourea
117.110	006	EPA 8270C	4-Aminobiphenyl
117.110	007	EPA 8270C	Aniline
117.110	008	EPA 8270C	Anthracene

117.110	009	EPA 8270C	Aramite
117.110	010	EPA 8270C	Benzidine
117.110	011	EPA 8270C	Benz(a)anthracene
117.110	012	EPA 8270C	Benzo(b)fluoranthene
117.110	013	EPA 8270C	Benzo(k)fluoranthene
117.110	014	EPA 8270C	Benzo(g,h,i)perylene
117.110	015	EPA 8270C	Benzo(a)pyrene
117.110	016	EPA 8270C	Benzoic Acid
117.110	017	EPA 8270C	p-Benzoquinone
117.110	018	EPA 8270C	Benzyl Alcohol
117.110	019	EPA 8270C	Benzyl Butyl Phthalate
117.110	020	EPA 8270C	bis(2-chloroethoxy)methane
117.110	021	EPA 8270C	bis(2-chloroethyl) Ether
117.110	022	EPA 8270C	Bis(2-chloroisopropyl) Ether
117.110	023	EPA 8270C	Di(2-ethylhexyl) Phthalate
117.110	024	EPA 8270C	4-Bromophenyl Phenyl Ether
117.110	025	EPA 8270C	Carbazole
117.110	026	EPA 8270C	4-Chloroaniline
117.110	027	EPA 8270C	4-Chloro-3-methylphenol
117.110	028	EPA 8270C	1-Chloronaphthalene
117.110	029	EPA 8270C	2-Chloronaphthalene
117.110	030	EPA 8270C	2-Chlorophenol
117.110	031	EPA 8270C	4-Chlorophenyl Phenyl Ether
117.110	032	EPA 8270C	Chrysene
117.110	033	EPA 8270C	2-Cyclohexyl-4,6-dinitrophenol
117.110	034	EPA 8270C	2,4-Diaminotoluene
117.110	035	EPA 8270C	Dibenz(a,j)acridine
117.110	036	EPA 8270C	Dibenz(a,h)anthracene
117.110	037	EPA 8270C	Dibenzofuran
117.110	038	EPA 8270C	Dibenzo(a,e)pyrene
117.110	039	EPA 8270C	1,2-Dichlorobenzene
117.110	040	EPA 8270C	1,3-Dichlorobenzene
117.110	041	EPA 8270C	1,4-Dichlorobenzene
117.110	042	EPA 8270C	3,3'-Dichlorobenzidine
117.110	043	EPA 8270C	2,4-Dichlorophenol
117.110	044	EPA 8270C	2,6-Dichlorophenol
117.110	045	EPA 8270C	Diethyl Phthalate
117.110	046	EPA 8270C	Diethylstilbestrol
117.110	047	EPA 8270C	Diethyl Sulfate
117.110	048	EPA 8270C	Dihydrosafrole
117.110	049	EPA 8270C	3,3'-Dimethoxybenzidine

117.110	050	EPA 8270C	p-Dimethylaminoazobenzene
117.110	051	EPA 8270C	7,12-Dimethylbenz(a)anthracene
117.110	052	EPA 8270C	a,a-Dimethylphenethylamine
117.110	053	EPA 8270C	2,4-Dimethylphenol
117.110	054	EPA 8270C	Dimethyl Phthalate
117.110	055	EPA 8270C	Di-n-butyl phthalate
117.110	056	EPA 8270C	Di-n-octyl phthalate
117.110	057	EPA 8270C	1,2-Dinitrobenzene
117.110	058	EPA 8270C	1,3-Dinitrobenzene
117.110	059	EPA 8270C	1,4-Dinitrobenzene
117.110	060	EPA 8270C	2,4-Dinitrophenol
117.110	061	EPA 8270C	2,4-Dinitrotoluene
117.110	062	EPA 8270C	2,6-Dinitrotoluene
117.110	063	EPA 8270C	Diphenylamine
117.110	064	EPA 8270C	1,2-Diphenylhydrazine
117.110	065	EPA 8270C	Ethyl Carbamate
117.110	066	EPA 8270C	Ethyl Methanesulfonate
117.110	067	EPA 8270C	Fluoranthene
117.110	068	EPA 8270C	Fluorene
117.110	069	EPA 8270C	Hexachlorobenzene
117.110	070	EPA 8270C	Hexachlorobutadiene
117.110	071	EPA 8270C	Hexachlorocyclopentadiene
117.110	072	EPA 8270C	Hexachloroethane
117.110	073	EPA 8270C	Hexachlorophene
117.110	074	EPA 8270C	Hexachloropropene
117.110	075	EPA 8270C	Indeno(1,2,3-c,d)pyrene
117.110	076	EPA 8270C	Isophorone
117.110	077	EPA 8270C	Isosafrole
117.110	078	EPA 8270C	Maleic Anhydride
117.110	079	EPA 8270C	3-Methylcholanthrene
117.110	080	EPA 8270C	2-Methyl-4,6-dinitrophenol
117.110	081	EPA 8270C	4,4'-Methylenebis(2-chloroaniline)
117.110	082	EPA 8270C	Methyl Methanesulfonate
117.110	083	EPA 8270C	2-Methylnaphthalene
117.110	084	EPA 8270C	2-Methylphenol
117.110	085	EPA 8270C	3-Methylphenol
117.110	086	EPA 8270C	4-Methylphenol
117.110	087	EPA 8270C	Naphthalene
117.110	088	EPA 8270C	1,4-Naphthoquinone
117.110	089	EPA 8270C	1-Naphthylamine
117.110	090	EPA 8270C	2-Naphthylamine

117.110	091	EPA 8270C	Nicotine
117.110	092	EPA 8270C	2-Nitroaniline
117.110	093	EPA 8270C	3-Nitroaniline
117.110	094	EPA 8270C	4-Nitroaniline
117.110	095	EPA 8270C	Nitrobenzene
117.110	096	EPA 8270C	2-Nitrophenol
117.110	097	EPA 8270C	4-Nitrophenol
117.110	098	EPA 8270C	N-nitroso-di-n-butylamine
117.110	099	EPA 8270C	N-nitrosodiethylamine
117.110	100	EPA 8270C	N-nitrosodimethylamine
117.110	101	EPA 8270C	N-nitroso-di-n-propylamine
117.110	102	EPA 8270C	N-nitrosodiphenylamine
117.110	103	EPA 8270C	N-nitrosomethylethylamine
117.110	104	EPA 8270C	N-nitrosomorpholine
117.110	105	EPA 8270C	N-nitrosopiperidine
117.110	106	EPA 8270C	N-nitrosopyrrolidine
117.110	107	EPA 8270C	5-Nitro-o-toluidine
117.110	108	EPA 8270C	Pentachlorobenzene
117.110	109	EPA 8270C	Pentachloronitrobenzene
117.110	110	EPA 8270C	Pentachlorophenol
117.110	111	EPA 8270C	Phenacetin
117.110	112	EPA 8270C	Phenanthrene
117.110	113	EPA 8270C	Phenol
117.110	114	EPA 8270C	1,4-Phenylenediamine
117.110	115	EPA 8270C	Phthalic Anhydride
117.110	116	EPA 8270C	2-Picoline
117.110	117	EPA 8270C	Pronamide
117.110	118	EPA 8270C	Propylthiouracil
117.110	119	EPA 8270C	Pyrene
117.110	120	EPA 8270C	Pyridine
117.110	121	EPA 8270C	Resorcinol
117.110	122	EPA 8270C	Safrole
117.110	123	EPA 8270C	Strychnine
117.110	124	EPA 8270C	1,2,4,5-Tetrachlorobenzene
117.110	125	EPA 8270C	2,3,4,6-Tetrachlorophenol
117.110	126	EPA 8270C	Thiophenol
117.110	127	EPA 8270C	Toluene Diisocyanate
117.110	128	EPA 8270C	o-Toluidine
117.110	129	EPA 8270C	1,2,4-Trichlorobenzene
117.110	130	EPA 8270C	2,4,5-Trichlorophenol
117.110	131	EPA 8270C	2,4,6-Trichlorophenol

117.110	132	EPA 8270C	1,3,5-Trinitrobenzene
117.111	073	EPA 8270C	Polynuclear Aromatic Hydrocarbons
117.111	075	EPA 8270C	Phthalates
117.111	076	EPA 8270C	Other Extractables
117.140	000	EPA 8310	Polynuclear Aromatic Hydrocarbons
117.140	001	EPA 8310	Acenaphthene
117.140	002	EPA 8310	Acenaphthylene
117.140	003	EPA 8310	Anthracene
117.140	004	EPA 8310	Benz(a)anthracene
117.140	005	EPA 8310	Benzo(a)pyrene
117.140	006	EPA 8310	Benzo(b)fluoranthene
117.140	007	EPA 8310	Benzo(k)fluoranthene
117.140	008	EPA 8310	Benzo(g,h,i)perylene
117.140	009	EPA 8310	Chrysene
117.140	010	EPA 8310	Dibenz(a,h)anthracene
117.140	011	EPA 8310	Fluoranthene
117.140	012	EPA 8310	Fluorene
117.140	013	EPA 8310	Indeno(1,2,3-c,d)pyrene
117.140	014	EPA 8310	Naphthalene
117.140	015	EPA 8310	Phenanthrene
117.140	016	EPA 8310	Pyrene
117.170	000	EPA 8330	Nitroaromatics and Nitramines
117.170	001	EPA 8330	4-Amino-2,6-dinitrotoluene
117.170	002	EPA 8330	2-Amino-4,6-dinitrotoluene
117.170	003	EPA 8330	1,3-Dinitrobenzene
117.170	004	EPA 8330	2,4-Dinitrotoluene
117.170	005	EPA 8330	2,6-Dinitrotoluene
117.170	006	EPA 8330	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)
117.170	007	EPA 8330	Methyl-2,4,6-trinitrophenylnitramine
117.170	008	EPA 8330	Nitrobenzene
117.170	009	EPA 8330	2-Nitrotoluene
117.170	010	EPA 8330	3-Nitrotoluene
117.170	011	EPA 8330	4-Nitrotoluene
117.170	012	EPA 8330	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
117.170	013	EPA 8330	1,3,5-Trinitrobenzene
117.170	014	EPA 8330	2,4,6-Trinitrotoluene
117.171	000	EPA 8330A	Nitroaromatics and Nitramines
117.171	001	EPA 8330A	4-Amino-2,6-dinitrotoluene
117.171	002	EPA 8330A	2-Amino-4,6-dinitrotoluene
117.171	003	EPA 8330A	1,3-Dinitrobenzene
117.171	004	EPA 8330A	2,4-Dinitrotoluene

117.171	005	EPA 8330A	2,6-Dinitrotoluene
117.171	006	EPA 8330A	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)
117.171	007	EPA 8330A	Methyl-2,4,6-trinitrophenylnitramine
117.171	008	EPA 8330A	Nitrobenzene
117.171	009	EPA 8330A	2-Nitrotoluene
117.171	010	EPA 8330A	3-Nitrotoluene
117.171	011	EPA 8330A	4-Nitrotoluene
117.171	012	EPA 8330A	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
117.171	013	EPA 8330A	1,3,5-Trinitrobenzene
117.171	014	EPA 8330A	2,4,6-Trinitrotoluene
117.210	000	EPA 8081A	Organochlorine Pesticides
117.210	001	EPA 8081A	Aldrin
117.210	002	EPA 8081A	a-BHC
117.210	003	EPA 8081A	b-BHC
117.210	004	EPA 8081A	d-BHC
117.210	005	EPA 8081A	g-BHC (Lindane)
117.210	006	EPA 8081A	Captafol
117.210	007	EPA 8081A	a-Chlordane
117.210	008	EPA 8081A	g-Chlordane
117.210	009	EPA 8081A	Chlordane (tech.)
117.210	010	EPA 8081A	Chlorobenzilate
117.210	011	EPA 8081A	Chloroneb
117.210	012	EPA 8081A	Chlorothalonil
117.210	013	EPA 8081A	4,4'-DDD
117.210	014	EPA 8081A	4,4'-DDE
117.210	015	EPA 8081A	4,4'-DDT
117.210	020	EPA 8081A	Dieldrin
117.210	021	EPA 8081A	Endosulfan I
117.210	022	EPA 8081A	Endosulfan II
117.210	023	EPA 8081A	Endosulfan Sulfate
117.210	024	EPA 8081A	Endrin
117.210	025	EPA 8081A	Endrin Aldehyde
117.210	026	EPA 8081A	Endrin Ketone
117.210	027	EPA 8081A	Heptachlor
117.210	028	EPA 8081A	Heptachlor Epoxide
117.210	029	EPA 8081A	Hexachlorobenzene
117.210	033	EPA 8081A	Methoxychlor
117.210	039	EPA 8081A	Toxaphene
117.210	040	EPA 8081A	Trifluralin
117.220	000	EPA 8082	PCBs
117.220	001	EPA 8082	PCB-1016

117.220	002	EPA 8082	PCB-1221
117.220	003	EPA 8082	PCB-1232
117.220	004	EPA 8082	PCB-1242
117.220	005	EPA 8082	PCB-1248
117.220	006	EPA 8082	PCB-1254
117.220	007	EPA 8082	PCB-1260
117.240	000	EPA 8141A	Organophosphorus Pesticides
117.240	001	EPA 8141A	Atrazine
117.240	002	EPA 8141A	Azinphos Methyl
117.240	003	EPA 8141A	Carbophenothion
117.240	004	EPA 8141A	Chlorfenvinphos
117.240	005	EPA 8141A	Chlorpyrifos
117.240	006	EPA 8141A	Chlorpyrifos Methyl
117.240	007	EPA 8141A	Demeton-O
117.240	008	EPA 8141A	Demeton-S
117.240	009	EPA 8141A	Diazinon
117.240	014	EPA 8141A	Famphur
117.240	015	EPA 8141A	Malathion
117.240	016	EPA 8141A	Mevinphos
117.240	017	EPA 8141A	Naled
117.240	018	EPA 8141A	Parathion Ethyl
117.240	019	EPA 8141A	Parathion Methyl
117.240	020	EPA 8141A	Phorate
117.240	022	EPA 8141A	Ronnel
117.240	023	EPA 8141A	Simazine
117.240	024	EPA 8141A	Sulfotepp
117.250	000	EPA 8151A	Chlorinated Herbicides
117.250	001	EPA 8151A	2,4-D
117.250	002	EPA 8151A	2,4-DB
117.250	003	EPA 8151A	2,4,5-T
117.250	004	EPA 8151A	2,4,5-TP
117.250	006	EPA 8151A	Dalapon
117.250	007	EPA 8151A	Dichlorprop
117.250	008	EPA 8151A	Dinoseb
117.250	009	EPA 8151A	MCPA
117.250	010	EPA 8151A	MCPP
117.250	011	EPA 8151A	4-Nitrophenol
117.250	014	EPA 8151A	Dicamba

119 - Toxicity Bioassay of Hazardous Waste

119.010	001	Polisini & Miller (CDFG 1988)	Fathead Minnow (P. promelas)

120 - Physical Properties of Hazardous Waste

120.010	001	EPA 1010	Ignitability
120.022	001	EPA 1030	Ignitability
120.030	001	EPA 1110	Corrosivity
120.040	001	Section 7.3 SW-846	Reactive Cyanide
120.050	001	Section 7.3 SW-846	Reactive Sulfide
120.070	001	EPA 9040B	Corrosivity - pH Determination
120.080	001	EPA 9045C	Corrosivity - pH Determination

NELAP - RECOGNIZED

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM BRANCH

CERTIFICATE OF NELAP ACCREDITATION

Is hereby granted to

Calscience Environmental Laboratories, Inc.

7440 Lincoln Way

Garden Grove, CA 92841-1427

Scope of the Certificate is limited to the
"NELAP Fields of Accreditation"
which accompany this Certificate.

Continued accredited status depends on successful
ongoing participation in the program.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **03220CA**

Expiration Date: **9/30/2014**

Effective Date: **10/1/2013**

Richmond, California
subject to forfeiture or revocation

Fred Chosbe for
David Mazzera, Ph.D., Assistant Division Chief
Division of Drinking Water and Environmental Management

ATTACHMENT C

Groundwater Extraction Treatment System

Monitoring Logs

DFSP Norwalk
GWTS Environmental Compliance / Operation Maintenance Worksheets

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

DATE: W 12-18-13 TIME: 1525 WEATHER: Partly cloudy 68°

OPERATOR NAME: G. Androsko REV'D BY:

PRESSURE READINGS

EQUIPMENT	Inlet Pressure (psig)		Outlet Pressure (psig)			Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	40	P3	38	P2-P3	0		
BF2 (Center)	P4	39	P5	37	P4-P5	0		
BF3 (West)	P6	42	P7	41	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	40	P9	37	P8-P9	0		
MX-21 (large)	P9	37	P10	36	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	36	P11	31	P10-P11	0		
GAC - 2	P11	31	P12	27	P11-P12	0		
GAC - 3	P12	27	P13	26	P12-P13	0		
Ion Exchange (Bed 1)	P13	26	P14	17	P13-P14	0		
Ion Exchange (Bed 2)	P14	17	P15	7	P14-P15	0		

	FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
2	Wells: GW-2	6.0	1923043.2	1917170.0	-	
7	Wells: GW-13	4.8	1271918.3	1268357.0	-	
0	Wells: GW-2/13	10.0	13860583.3	13851451.0	-	
889	Wells: GW-15	4.3	36729.5	34822.2	-	
6	Wells: GW-16	4.5	5345686.2	5343179.2	-	
5	Wells: GW-15/16	8.5	2660897.5	2656878.5	-	
95	NPDES Discharge	38	67543305	67532255	-	

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)_____ [If collecting NPDES samples today, record effluent temperature (deg. C) and pH]

TEMP_____ (degrees, C) pH_____ Data collection instrument used (check one): ☐ Horiba U-10 or ☐ Other (please specify) _____

NOTES / DAILY TASK SUMMARY

Changed out ion exchange resin. Replaced bag filters on BF-1, 2 + 3
Restarted system @ 1230

DFSP Norwalk
GWTS Environmental Compliance / Operation Maintenance Worksheets

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

DATE: Th 12-19-13 TIME: 1145 WEATHER: Showers 60°

OPERATOR NAME: G.Androsko REV'D BY:

PRESSURE READINGS

EQUIPMENT		Inlet Pressure (psig)		Outlet Pressure (psig)		Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	35	P3	33	P2-P3	0		
BF2 (Center)	P4	33	P5	31	P4-P5	0		
BF3 (West)	P6	38	P7	37	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	35	P9	30	P8-P9	0		
MX-21 (large)	P9	30	P10	30	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	30	P11	26	P10-P11	0		
GAC - 2	P11	26	P12	22	P11-P12	0		
GAC - 3	P12	22	P13	22	P12-P13	0		
Ion Exchange (Bed 1)	P13	22	P14	13	P13-P14	0		
Ion Exchange (Bed 2)	P14	13	P15	6	P14-P15	0		

	FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
7	Wells: GW-2	6.0	1930268.3	1923043.2	-	
	Wells: GW-13	5.1	1278013.5	1271918.3	-	
1	Wells: GW-2/13	9.9	13872764.8	13860583.3	-	
5	Wells: GW-15	3.4	41376.0	36729.5	-	
7	Wells: GW-16	4.5	5351488.2	5345686.2	-	
8	Wells: GW-15/16	8.3	2671210.0	2660897.5	-	
	NPDES Discharge	36	67564610	67543305	-	

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, (ANNUAL) OTHER (specify)_____ [If collecting NPDES samples today, record effluent temperature (deg. C) and pH]

TEMP 18.9° (degrees, C) pH 7.11 Data collection instrument used (check one): ☒ Horiba U-10 or ☐ Other (please specify) _____

NOTES / DAILY TASK SUMMARY

Collected annual effluent samples @ 1145

DFSP Norwalk
GWTS Environmental Compliance / Operation Maintenance Worksheets

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

DATE: M 12-23-13 TIME: 0845 WEATHER: Sunny 55°

OPERATOR NAME: G. Androsko REV'D BY:

PRESSURE READINGS

EQUIPMENT	Inlet Pressure (psig)		Outlet Pressure (psig)			Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	37	P3	35	P2-P3	0		
BF2 (Center)	P4	35	P5	33	P4-P5	0		
BF3 (West)	P6	40	P7	40	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	38	P9	32	P8-P9	0		
MX-21 (large)	P9	32	P10	32	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	32	P11	27	P10-P11	0		
GAC - 2	P11	27	P12	23	P11-P12	0		
GAC - 3	P12	23	P13	23	P12-P13	0		
Ion Exchange (Bed 1)	P13	23	P14	12	P13-P14	0		
Ion Exchange (Bed 2)	P14	12	P15	4	P14-P15	0		

	FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
5	Wells: GW-2	6.3	1964526.5	1930268.3	-	
0	Wells: GW-13	4.6	1304451.5	1278013.5	-	
8	Wells: GW-2/13	9.6	13925730.8	13872764.8	-	
4	Wells: GW-15	3.1	59834.7	41376.0	-	
1	Wells: GW-16	4.8	5376852.7	5351488.2	-	
2	Wells: GW-15/16	8.2	2716157.4	2671210.0	-	
70	NPDES Discharge	37	67652080	67564610	-	

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)_____ [If collecting NPDES samples today, record effluent temperature (deg. C) and pH]

TEMP_____ (degrees, C) pH_____ Data collection instrument used (check one): ☐ Horiba U-10 or ☐ Other (please specify) _____

NOTES / DAILY TASK SUMMARY

Changed soakease socks in surge tank

DFSP Norwalk
GWTS Environmental Compliance / Operation Maintenance Worksheets

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

DATE: 12-24-13 TIME: 1200 WEATHER: SUNNY

OPERATOR NAME: M. Gradillas REV'D BY:

PRESSURE READINGS

EQUIPMENT	Inlet Pressure (psig)		Outlet Pressure (psig)			Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	37	P3	34	P2-P3	0		
BF2 (Center)	P4	35	P5	33	P4-P5	0		
BF3 (West)	P6	37	P7	38	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	36	P9	31	P8-P9	0		
MX-21 (large)	P9	31	P10	30	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	30	P11	23	P10-P11	0		
GAC - 2	P11	23	P12	19	P11-P12	0		
GAC - 3	P12	19	P13	19	P12-P13	0		
Ion Exchange (Bed 1)	P13	19	P14	11	P13-P14	0		
Ion Exchange (Bed 2)	P14	11	P15	4.5	P14-P15	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	6.3	1975171.4	1964526.5	-	
Wells: GW-13	4.9	13118610	1304451.5	-	
Wells: GW-2/13	9.5	13940984.7	13925730.8	-	
Wells: GW-15	3.9	661747.5	59834.7	-	
Wells: GW-16	4.7	53842050	5376852.7	-	
Wells: GW-15/16	8.4	27301820	2716157.4	-	
NPDES Discharge	38	67679665	67652080	-	

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)_____ [If collecting NPDES samples today, record effluent temperature (deg. C) and pH]

TEMP_____ (degrees, C) pH_____ Data collection instrument used (check one): ☐ Horiba U-10 or ☐ Other (please specify) _____

NOTES / DAILY TASK SUMMARY

DFSP Norwalk
GWTS Environmental Compliance / Operation Maintenance Worksheets

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

DATE: 12-27-13 TIME: 0915 WEATHER: Sunny 80°

OPERATOR NAME: M. Gradillas REV'D BY:

PRESSURE READINGS

EQUIPMENT	Inlet Pressure (psig)		Outlet Pressure (psig)			Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	37	P3	35	P2-P3	0		
BF2 (Center)	P4	36	P5	34	P4-P5	0		
BF3 (West)	P6	40	P7	40	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	37	P9	31	P8-P9	0		
MX-21 (large)	P9	31	P10	32	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	32	P11	26	P10-P11	0		
GAC - 2	P11	26	P12	22	P11-P12	0		
GAC - 3	P12	22	P13	21.5	P12-P13	0		
Ion Exchange (Bed 1)	P13	21.5	P14	12	P13-P14	0		
Ion Exchange (Bed 2)	P14	12	P15	5	P14-P15	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	6.3	2001725.4	1975171.4	-	
Wells: GW-13	4.8	1330549.5	1311861.0	-	
Wells: GW-2/13	9.8	13980680.2	13940984.7	-	
Wells: GW-15	3.9	81367.1	66047.5	-	
Wells: GW-16	4.6	5402995.5	5384205.0	-	
Wells: GW-15/16	8.3	2764220.9	2730182.0	-	
NPDES Discharge	37	67746540	67679665	-	

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)_____ [If collecting NPDES samples today, record effluent temperature (deg. C) and pH]

TEMP 24.6 (degrees, C) pH 8.56 Data collection instrument used (check one): ☐ Horiba U-10 or ☐ Other (please specify) _____

NOTES / DAILY TASK SUMMARY

DFSP Norwalk
GWTS Environmental Compliance / Operation Maintenance Worksheets

PARSONS DAILY INSPECTION MAINTENANCE LOGSHEET

DATE: 12.31.13 TIME: 0720 WEATHER: SUNNY

OPERATOR NAME: M. GRAGILAS REV'D BY:

PRESSURE READINGS

EQUIPMENT	Inlet Pressure (psig)		Outlet Pressure (psig)			Delta P (psig)	Filter Change Guide	COMMENTS
BAG FILTERS (BF)							If > 25 psig; change filter	
BF1 (East)	P2	38	P3	36	P2-P3	0		
BF2 (Center)	P4	36	P5	34	P4-P5	0		
BF3 (West)	P6	42	P7	41	P6-P7	0		
MYCELX							If > 15 psig; change filter	
MX-7 (small)	P8	39	P9	31	P8-P9	0		
MX-21 (large)	P9	31	P10	31	P9-P10	0		
GAC FILTERS							If > 10 psig; notify.	
GAC - 1	P10	31	P11	25	P10-P11	0		
GAC - 2	P11	25	P12	22	P11-P12	0		
GAC - 3	P12	22	P13	22.5	P12-P13	0		
Ion Exchange (Bed 1)	P13	22.5	P14	12	P13-P14	0		
Ion Exchange (Bed 2)	P14	12	P15	5	P14-P15	0		

FLOW METERS	Instantaneous Flow (GPM)	Totalizer Reading (GAL)	Last Totalizer Reading (GAL)	Flow Volume (GAL)	
Wells: GW-2	6.5	2038302.0	2001725.4	-	
Wells: GW-13	4.6	1355193.5	1330549.5	-	
Wells: GW-2/13	9.5	14034434.1	13980680.2	-	
Wells: GW-15	3.7	101804.5	81367.1	-	
Wells: GW-16	4.5	54283130	54029995.5	-	
Wells: GW-15/16	3.4	2807972.5	2764220.9	-	
NPDES Discharge	36	67837209	67746540	-	

NPDES Sample Collection (circle one): MONTHLY, QUARTERLY, ANNUAL, OTHER (specify)_____ [If collecting NPDES samples today, record effluent temperature (deg. C) and pH]

TEMP_____ (degrees, C) pH_____ Data collection instrument used (check one): ☐ Horiba U-10 or ☐ Other (please specify) _____

NOTES / DAILY TASK SUMMARY