

RECEIVED

By Alameda County Environmental Health 2:14 pm, Nov 12, 2015

Mr. Mark Detterman
Alameda County Environmental Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Former Olympic Service Station
1436 Grant Avenue
San Lorenzo, California
ACEHD Case No. R00000373, GeoTracker No. T0600102256

Dear Mr. Detterman:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,
George and Frida Jaber 1989 Family Trust



George Jaber, Trustee



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

TRANSMITTAL

Date November 10, 2015
Project Former Olympic Station

To:
Oro Loma Sanitary District (OLSD)
Industrial Waste Inspector
2600 Grant Avenue, San Lorenzo, CA 94580
Attn: Rodney Smith

Re: Wastewater Discharge Monthly Report (Permit #SDP-2014147)

Item	Description
1	Analytical Report (Effluent sample collected on 10/6/15)
2	Operational Uptime and Flow Summary Table (Table 3)
3	Operational Performance and Mass Removal Summary Table (Table 9: GW Extraction Component)

Dear Mr. Smith:

Please find attached for your review the analytical results for the effluent water sample collected on October 6, 2015, the pH readings (Table 3), and groundwater discharge flow rates (Table 9) observed from the dual-phase extraction and groundwater remediation system at the Former Olympic Station Facility, located at 1436 Grant Avenue, San Lorenzo, California. On October 6, 2015, the system was temporarily shut down for a scheduled semi-annual sampling event. However, the system has since remained down per recent discussions with Alameda County Health Department, and therefore, no additional treated groundwater has been discharged into the municipal system. The system will remain down until further project funding approval. Upon approval Straus will notify Oro Loma Sanitary District of the restart of the system.

Through October 6, 2015, the system operated in compliance with permit conditions and all effluent sample results were below laboratory reporting limits, and within the permit limitations.

“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,

November 10, 2015

and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

If you have any questions, or need more information, please contact me at (530) 313-9974 or dbarr@stratusinc.net.

Sincerely,



Deborah L. Barr, P.E.





Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 10/07/15

Job: **Olympic Station**

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B / SW8260B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID :	Oly A EFF					
Lab ID :	STR15100743-01A	TPH-P (GRO)	ND	20 mg/m ³	10/07/15 11:20	10/08/15
Date Sampled	10/06/15 06:05	Methyl tert-butyl ether (MTBE)	ND	0.20 mg/m ³	10/07/15 11:20	10/08/15
		Benzene	ND	0.20 mg/m ³	10/07/15 11:20	10/08/15
		Toluene	ND	0.20 mg/m ³	10/07/15 11:20	10/08/15
		Ethylbenzene	ND	0.20 mg/m ³	10/07/15 11:20	10/08/15
		m,p-Xylene	ND	0.20 mg/m ³	10/07/15 11:20	10/08/15
		o-Xylene	ND	0.20 mg/m ³	10/07/15 11:20	10/08/15
Client ID :	Oly W EFF					
Lab ID :	STR15100743-02A	TPH-P (GRO)	ND	50 µg/L	10/08/15	10/08/15
Date Sampled	10/06/15 05:40	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	10/08/15	10/08/15
		Benzene	ND	0.50 µg/L	10/08/15	10/08/15
		Toluene	ND	0.50 µg/L	10/08/15	10/08/15
		Ethylbenzene	ND	0.50 µg/L	10/08/15	10/08/15
		m,p-Xylene	ND	0.50 µg/L	10/08/15	10/08/15
		o-Xylene	ND	0.50 µg/L	10/08/15	10/08/15

Gasoline Range Organics (GRO) C4-C13

Note: For sample -01A concentrations of air in a Tedlar Bag are at 25 degrees Celsius and 25.79 inches of mercury.

ND = Not Detected

Reported in micrograms per Liter, per client request.



Roger Scholl

Randy Gardner

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



✓
10/9/15

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
13-Oct-15

QC Summary Report

Work Order:
15100743

Method Blank

File ID: 15100807.D

Type MBLK

Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS08A1008B

Analysis Date: 10/08/2015 13:13

Sample ID: MBLK MS08A1008B

Units : mg/m³

Run ID: MSD_08_151008A

Prep Date: 10/08/2015 13:13

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

ND

10

Surr: 1,2-Dichloroethane-d4

2.08

2

104

70

130

Surr: Toluene-d8

2.04

2

102

70

130

Surr: 4-Bromofluorobenzene

1.89

2

95

70

130

Laboratory Control Spike

File ID: 15100805.D

Type LCS

Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS08A1008B

Analysis Date: 10/08/2015 12:17

Sample ID: GLCS MS08A1008B

Units : mg/m³

Run ID: MSD_08_151008A

Prep Date: 10/08/2015 12:17

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

431

10

400

108

70

130

Surr: 1,2-Dichloroethane-d4

8.06

10

81

70

130

Surr: Toluene-d8

10.2

10

102

70

130

Surr: 4-Bromofluorobenzene

12.5

10

125

70

130

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
13-Oct-15

QC Summary Report

Work Order:
15100743

Method Blank

File ID: 15100804.D

Type MBLK Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS15W1008B

Analysis Date: 10/08/2015 11:36

Sample ID: MBLK MS15W1008B

Units : µg/L

Run ID: MSD_15_151008A

Prep Date: 10/08/2015 11:36

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	10.5		10		105	70	130			
Surr: Toluene-d8	9.24		10		92	70	130			
Surr: 4-Bromofluorobenzene	10.6		10		106	70	130			

Laboratory Control Spike

File ID: 15100803.D

Type LCS

Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS15W1008B

Analysis Date: 10/08/2015 11:04

Sample ID: GLCS MS15W1008B

Units : µg/L

Run ID: MSD_15_151008A

Prep Date: 10/08/2015 11:04

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	378	50	400		94	70	130			
Surr: 1,2-Dichloroethane-d4	11.3		10		113	70	130			
Surr: Toluene-d8	9		10		90	70	130			
Surr: 4-Bromofluorobenzene	10.1		10		101	70	130			

Sample Matrix Spike

File ID: 15100941.D

Type MS

Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS15W1008B

Analysis Date: 10/10/2015 01:12

Sample ID: 15100240-03AGS

Units : µg/L

Run ID: MSD_15_151008A

Prep Date: 10/10/2015 01:12

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1250	250	2000		63	54	143			
Surr: 1,2-Dichloroethane-d4	55.8		50		112	70	130			
Surr: Toluene-d8	49.1		50		98	70	130			
Surr: 4-Bromofluorobenzene	50.8		50		102	70	130			

Sample Matrix Spike Duplicate

File ID: 15100942.D

Type MSD

Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS15W1008B

Analysis Date: 10/10/2015 01:36

Sample ID: 15100240-03AGSD

Units : µg/L

Run ID: MSD_15_151008A

Prep Date: 10/10/2015 01:36

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1140	250	2000		57	54	143	1250	9.6(23)	
Surr: 1,2-Dichloroethane-d4	56.2		50		112	70	130			
Surr: Toluene-d8	48.9		50		98	70	130			
Surr: 4-Bromofluorobenzene	49.3		50		99	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
13-Oct-15

QC Summary Report

Work Order:
15100743

Method Blank

Type MBLK Test Code: EPA Method SW8260B

File ID: 15100807.D

Batch ID: MS08A1008A

Analysis Date: 10/08/2015 13:13

Sample ID: MBLK MS08A1008A

Units : mg/m³

Run ID: MSD_08_151008A

Prep Date: 10/08/2015 13:13

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	2.08		2		104	70	130			
Surr: Toluene-d8	2.04		2		102	70	130			
Surr: 4-Bromofluorobenzene	1.89		2		95	70	130			

Laboratory Control Spike

Type LCS Test Code: EPA Method SW8260B

File ID: 15100804.D

Batch ID: MS08A1008A

Analysis Date: 10/08/2015 11:51

Sample ID: LCS MS08A1008A

Units : mg/m³

Run ID: MSD_08_151008A

Prep Date: 10/08/2015 11:51

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	11.7	0.1	10		117	63	137			
Benzene	9.17	0.1	10		92	70	130			
Toluene	9.81	0.1	10		98	70	130			
Ethylbenzene	9.1	0.1	10		91	70	130			
m,p-Xylene	9.29	0.1	10		93	65	139			
o-Xylene	9.12	0.1	10		91	70	130			
Surr: 1,2-Dichloroethane-d4	8.63		10		86	70	130			
Surr: Toluene-d8	9.94		10		99	70	130			
Surr: 4-Bromofluorobenzene	12.2		10		122	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
13-Oct-15

QC Summary Report

Work Order:
15100743

Method Blank

File ID: 15100804.D

Type MBLK Test Code: EPA Method 624/8260

Batch ID: MS15W1008A

Analysis Date: 10/08/2015 11:36

Sample ID: MBLK MS15W1008A

Units: µg/L

Run ID: MSD_15_151008A

Prep Date: 10/08/2015 11:36

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.5								
Benzene	ND	0.5								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	10.5		10		105	70	130			
Surr: Toluene-d8	9.24		10		92	70	130			
Surr: 4-Bromofluorobenzene	10.6		10		106	70	130			

Laboratory Control Spike

File ID: 15100802.D

Type LCS Test Code: EPA Method 624/8260

Batch ID: MS15W1008A

Analysis Date: 10/08/2015 10:40

Sample ID: LCS MS15W1008A

Units: µg/L

Run ID: MSD_15_151008A

Prep Date: 10/08/2015 10:40

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	12.5	0.5	10		125	63	137			
Benzene	10.3	0.5	10		103	70	130			
Toluene	9.02	0.5	10		90	70	130			
Ethylbenzene	8.69	0.5	10		87	70	130			
m,p-Xylene	8.69	0.5	10		87	65	139			
o-Xylene	8.68	0.5	10		87	70	130			
Surr: 1,2-Dichloroethane-d4	10.5		10		105	70	130			
Surr: Toluene-d8	8.96		10		90	70	130			
Surr: 4-Bromofluorobenzene	9.83		10		98	70	130			

Sample Matrix Spike

File ID: 15100939.D

Type MS Test Code: EPA Method 624/8260

Batch ID: MS15W1008A

Analysis Date: 10/10/2015 00:23

Sample ID: 15100240-03AMS

Units: µg/L

Run ID: MSD_15_151008A

Prep Date: 10/10/2015 00:23

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	66.7	1.3	50	0.52	132	56	140			
Benzene	47.8	1.3	50	0	96	67	134			
Toluene	45.4	1.3	50	0	91	38	130			
Ethylbenzene	41.5	1.3	50	0	83	70	130			
m,p-Xylene	40.9	1.3	50	0	82	65	139			
o-Xylene	42.7	1.3	50	0	85	69	130			
Surr: 1,2-Dichloroethane-d4	53.2		50		106	70	130			
Surr: Toluene-d8	48.7		50		97	70	130			
Surr: 4-Bromofluorobenzene	48.6		50		97	70	130			

Sample Matrix Spike Duplicate

File ID: 15100940.D

Type MSD Test Code: EPA Method 624/8260

Batch ID: MS15W1008A

Analysis Date: 10/10/2015 00:47

Sample ID: 15100240-03AMSD

Units: µg/L

Run ID: MSD_15_151008A

Prep Date: 10/10/2015 00:47

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	60.8	1.3	50	0.52	121	56	140	66.72	9.3(40)	
Benzene	44.3	1.3	50	0	89	67	134	47.78	7.5(21)	
Toluene	42.6	1.3	50	0	85	38	130	45.39	6.3(20)	
Ethylbenzene	38.9	1.3	50	0	78	70	130	41.45	6.5(20)	
m,p-Xylene	38.7	1.3	50	0	77	65	139	40.89	5.6(20)	
o-Xylene	40.2	1.3	50	0	80	69	130	42.65	6.0(20)	
Surr: 1,2-Dichloroethane-d4	51.3		50		103	70	130			
Surr: Toluene-d8	49		50		98	70	130			
Surr: 4-Bromofluorobenzene	50.7		50		101	70	130			



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
13-Oct-15

QC Summary Report

Work Order:
15100743

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR15100743
Report Due By : 5:00 PM On : 08-Oct-15

Client:
 Stratus Environmental
 3330 Cameron Park Drive
 Suite 550
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	EEmail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : C. Hill

PO :
 Client's COC # : 01911 Job : Olympic Station

Cooler Temp	Samples Received	Date Printed
4 °C	07-Oct-15	07-Oct-15

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests						Sample Remarks			
				Alpha	Sub	TAT	TPHP_A	TPHP_W	VOC_A	VOC_W						
STR15100743-01A	Oly A EFF	AR	10/06/15 06:05	1	0	1	GAS-N/C		BTEX/MTB E							Tedlar.
STR15100743-02A	Oly W EFF	AQ	10/06/15 05:40	3	0	1		GAS-C		BTEX/M_C						

Comments: 24hr TAT. No security seals intact. Frozen ice. Chain split due to different TATs. :

Signature	Print Name	Company	Date/Time
	JESSICA ALVARADO	Alpha Analytical, Inc.	10/7/15 1050

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:
 Company: Straw 1/5
 Attn: _____
 Address: _____
 City, State, Zip: _____
 Phone Number: _____ Fax: _____



Alpha Analytical, Inc.
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
 Satellite Service Centers:
 Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746
 Northern NV: 1250 Lamoille Hwy., #310, Elko, NV 89801
 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120

Phone: 775-355-1044
 Fax: 775-355-0406
 Phone: 916-366-9089
 Phone: 714-386-2901
 Phone: 775-388-7043
 Phone: 702-281-4648

01911

Page # 1 of 1

Consultant/Client Info:
 Company: Straw 1/5
 Address: _____
 City, State, Zip: _____

Job and Purchase Order Info:
 Job # _____
 Job Name: Olympic station
 P.O. #: _____
 Report Attention/Project Manager:
 Name: _____
 Email Address: scott
 Phone #: _____
 Cell #: _____

QC Deliverable Info:
 EDD Required? Yes / No _____ EDF Required? Yes / No _____
 Global ID: _____
 Data Validation Packages: III or IV _____

Samples Collected from which State? (circle one) AR CA KS NV OR WA DOD Site Other

Time Sampled (HHMM)	Date Sampled (MM/DD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	# Containers* (See Key Below)	Field Filtered?		Analysis Requested					Remarks
							Yes	No	GRU	BTEX	MTBE	TPH	8015B	
0608	10/15	AR		Oly A Sys Int	STD	1	X		X	X	X			
0605	10/15	AR	STRIS100743	Oly A Eff	24	1	X		X	X	X			
0535	10/15	AR		Oly W Int	STD	3	X		X	X	X			
0530				Oly W GAE1	STD	3	X		X	X	X			
0545				Oly W GAE2	STD	3	X		X	X	X			
0540	10/15	AR	-02A	Oly W Eff	24	3	X		X	X	X			

ADDITIONAL INSTRUCTIONS: Fell BX

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By: <u>AC HILL</u> <u>Straw 1/5</u>	Date:	Time:	Received by: (Signature/Affiliation): <u>Fell</u>	Date: <u>10/7/15</u>	Time: <u>1020</u>
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:
Relinquished by: (Signature/Affiliation):	Date:	Time:	Received by: (Signature/Affiliation):	Date:	Time:

* Key: AQ - Aqueous OT - Other So-Soil WA - Waste ** B - Brass L - Liter O - Orbo OT - Other P - Plastic S-Soil Jar T - Tedlar V - VOA

NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

**TABLE 3
OPERATIONAL UPTIME AND FLOW SUMMARY
DPE REMEDIATION EVENT**

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date & Time	Notes	Hour Meter Reading	Applied Vac	Area	Sys Inf Temp	Sys Inf Air Velocity	Sys Inf Air Flowrate	Control Temp	Effluent Air Temp	Area	Dilution Air Temp	Dilution Air Velocity	Dilution Air Flowrate	pH		PID	
														Inf	Eff	Sys Inf	Eff
														pH	°F	ppmv	ppmv
7/21/14 6:00	1	3,478.1	16.0	0.0491	95	2,000	98.2	1,452	1,411	0.0218	76	680	15	7.69	7.60	310	1.6
7/24/14 6:00	2	3,480.0	19.0	0.0491	95	2,000	98.2	1,460	1,410	0.0218	75	800	17	--	--	350	2.1
7/29/14 5:30	3	3,599.7	16.0	0.0491	90	2,200	108.0	1,465	1,425	0.0218	76	720	16	--	8.01	310	1.1
8/4/14 7:10	4	3,600.4	15.0	0.0491	85	2,000	98.2	1,493	1,430	0.0218	69	840	18	--	--	300	1.2
8/18/14 6:30	5	3,862.0	13.0	0.0491	90	2,350	115.4	1,475	1,426	--	--	--	--	7.87	7.89	110	2.3
9/8/14 7:30		4,247.0	12.0	0.0491	100	2,600	127.6	1,463	1,422	--	--	--	--	7.81	7.87	90	2.1
9/19/14 5:00		4,509.0	12.0	0.0491	100	2,700	132.5	1,464	1,425	--	--	--	--	--	--	150	1.7
10/2/14 6:48	6	4,823.0	12.0	0.0491	98	2,800	137.4	1,467	1,429	--	--	--	--	7.91	7.93	25	2.3
10/20/14 10:00	7	5,039.0	14.0	0.0491	90	2,500	122.7	1,460	1,389	--	--	--	--	--	--	45	2.6
11/3/14 7:00	8	5,265.0	14.0	0.0491	90	2,600	127.6	1,426	1,471	--	--	--	--	8.17	8.31	50	2.1
11/18/14 6:00	9	5,269.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/4/14 5:45	10	5,271.0	20.0	0.0491	90	2,000	98.2	1,468	1,310	0.0218	63	3096	68	8.13	8.36	16	2.4
12/16/14 5:30		5,557.0	16.0	0.0491	80	2,500	122.7	1,463	1,420	0.0218	55	2910	63	--	--	50	1.2
1/5/15 7:15	8	5,873.0	19.0	0.0491	72	1,500	73.6	1,534	1,400	0.0218	50	1534	33	8.19	8.41	10	1.8
1/19/15 6:00	8	5,888.0	18.0	0.0491	80	1,800	88.4	1,460	1,365	0.0218	50	1484	32	--	--	10	1.3
2/2/15 5:55	8	5,926.0	17.0	0.0491	80	1,750	85.9	1,467	1,413	0.0218	60	1987	43	8.05	8.13	5	1.3
2/16/15 6:00	8	5,930.0	19.0	0.0491	75	1,500	73.6	1,474	1,350	0.0218	63	1348	29	--	--	6	0.8
3/10/15 5:05	8	5,941.0	20.0	0.0491	78	1,500	73.6	1,463	1,350	0.0218	67	1771	39	8.13	8.21	10	0.9
3/23/15 7:00	11	6,015.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**TABLE 3
OPERATIONAL UPTIME AND FLOW SUMMARY
DPE REMEDIATION EVENT**

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date & Time	Notes	Hour Meter Reading	Applied Vac	Area	Sys Inf Temp	Sys Inf Air Velocity	Sys Inf Air Flowrate	Control Temp	Effluent Air Temp	Area	Dilution Air Temp	Dilution Air Velocity	Dilution Air Flowrate	pH		PID	
														Inf	Eff	Sys Inf	Eff
														pH	°F	ppmv	ppmv
5/5/15 5:00	12	6,018.0	14.5	0.0491	80	1,600	78.5	1494	1400	0.0218	55	2319	51	7.49	7.96	25	2.5
5/20/15 5:45	13	6,059.0	15.0	0.0491	80	1,450	71.2	1450	--	0.0218	65	685	15	--	--	40	1.3
5/21/15 5:10	14	6,083.0	15.0	0.0491	90	1,500	73.6	1450	--	0.0218	--	--	--	--	--	--	--
6/2/15 4:45	15	6,233.0	15.0	0.0491	90	1,500	73.6	1450	1380	0.0218	--	--	--	8.01	7.81	6	0.3
6/22/15 4:00		6,712.0	14.0	0.0491	85	1,500	73.6	1450	1310	0.0218	--	--	--	--	--	10	0.2
7/1/15 5:30	16	6,929.0	14.0	0.0491	95	1,600	78.5	1456	--	0.0218	--	--	--	--	--	5	0.4
7/14/15 5:15	13	6,930.0	15.0	0.0491	80	1,450	71.2	1450	1376	0.0218	--	--	--	--	--	75	1.2
8/3/15 6:00	17	7,410.0	12.0	0.0491	96	1,600	78.5	1450	1125	0.0218	--	--	--	7.74	7.50	5	0.8
8/18/15 5:00	18	7,725.0	12.0	0.0491	90	1,500	73.6	1460	1105	0.0218	--	--	--	--	--	3	0.8
9/1/15 5:00	19	7,903.0	12.5	0.0491	90	1,500	73.6	1460	1360	0.0218	--	--	--	7.74	7.38	2	0.5
9/22/15 4:45	20	8,407.0	12.0	0.0491	90	1,600	78.5	1450	1125	0.0218	--	--	--	--	--	30	0.9
10/6/15 5:30	16	8,744.0	14.0	0.0491	92	1,700	83.4	1452	1011	0.0218	--	--	--	7.85	7.56	9	2.5
Average			15.1		88	1,890	92.8	1,463	1,348		63	1552	34	7.9	7.9	73.5	1.4

Legend / Key:	Sample Calculation:
Vac = Vacuum	air flow = area of pipe (0.0491 ft ²) × air velocity (fpm) = flowrate (acfm)
"Hg = inches mercury	fpm = feet per minute
ft ² = square feet	acfm = actual cubic feet per minute
Temp = temperature	ppmv = parts per million by volume
°F = Fahrenheit	PID = Photoionization Detector
Inf = Influent	Sys Inf = System Influent (includes dilution air)
-- = not applicable/ not measured	Eff = Effluent

**TABLE 3
OPERATIONAL UPTIME AND FLOW SUMMARY**

DPE REMEDIATION EVENT

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date & Time	Notes	Hour Meter Reading	Applied Vac	Area	Sys Inf Temp	Sys Inf Air Velocity	Sys Inf Air Flowrate	Control Temp	Effluent Air Temp	Area	Dilution Air Temp	Dilution Air Velocity	Dilution Air Flowrate	pH		PID	
														Inf	Eff	Sys Inf	Eff
														°F	°F	ppmv	ppmv

Notes:

Influent pipe diameter = 3.0 inches

- 1 System briefly started to conduct an initial sampling event extracting from wells EX-2 through EX-7. Stingers placed at 13-feet (EX-2), 10-feet (EX-3, EX-4, and EX-6), 13-feet (EX-5) and 8-feet bgs (EX-7). System down upon departure waiting results.
- 2 System down upon arrival, system re-started for 1-week operation per groundwater discharge permit. System modified to extract from extraction wells EX-2 through EX-6.
- 3 Samples obtained per discharge permit, system shutdown upon departure pending approval of analytical results to begin discharging treated groundwater into on-site sewer cleanout.
- 4 System down upon arrival; groundwater discharge permit approved. System re-started upon departure for continuous operation extracting from wells EX-2 through EX-7 with stinger placed at 6-feet bgs (EX-7).
- 5 System down upon arrival, stinger depths modified, EX-2 through EX-4 and EX-6 placed at 10-feet, EX-5 at 13-feet, and EX-7 at 5-feet bgs.
- 6 System down upon arrival, system modified to extract from wells EX-1 through EX-7, system re-started upon departure.
- 7 System down upon arrival, replaced switch on combustion blower, system re-started upon departure.
- 8 System down upon arrival, system re-started upon departure.
- 9 System down upon arrival, due to scheduled groundwater sampling event system remained down upon departure.
- 10 System down upon arrival, system modified to extract from wells EX-1, EX-5 and EX-6, system re-started upon departure.
- 11 System down upon arrival, system remained down upon departure to evaluate pulse operation and second quarter groundwater sampling.
- 12 System down upon arrival, system re-started to obtain air and water samples. System modified to extract from wells EX-3, EX-6, MW-5A, and MW-6A. Sewer system observed to be backed up, therefore, maintenance to be completed prior to continuous system operation. System manually shutdown upon departure.
- 13 System down upon arrival, system re-started for continuous operation.
- 14 System modified to extract from wells EX-1, EX-6, MW-5A and MW-6A.
- 15 System modified to extract from wells EX-1, MW-5A and MW-6A.
- 16 System manually shutdown temporarily for upcoming sampling event.
- 17 System modified well EX-6 brought on-line, valve open 10%.
- 18 System down upon arrival, flame off, system modified well EX-6 open 25%, system re-started upon departure.
- 19 System modified well EX-6 open 10%.
- 20 System modified well EX-6 open 30%.

TABLE 9
GROUNDWATER EXTRACTION COMPONENT - OPERATIONAL PERFORMANCE AND MASS REMOVAL SUMMARY
DPE REMEDIATION EVENT
Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date	Notes	Sample Time	Hour Meter Reading ¹	Sewer Discharge Data				Analytical Results			Mass Removed			Cumulative Mass Removed		
				Totalizer Reading (gallons)	Period (gallons)	Cumulative Flow (gallons)	Average Sewer Discharge Flow Rate (gpm) ^a	Influent			This Period			Mass Removed		
								GRO (µg/L)	Benzene (µg/L)	MTBE (µg/L)	GRO (lbs)	Benzene (lbs)	MTBE (lbs)	GRO (lbs)	Benzene (lbs)	MTBE (lbs)
7/21/14	1	7:43	3,478.1	60,440	--	--	--	Start of Test								
07/29/14		5:55	3,599.7	110,120	49,680	49,680	6.81	310	3.3	37	0.13	0.0014	0.015	0.13	0.0014	0.015
08/18/14		7:15	3,862.0	196,310	86,190	135,870	5.48	170	3.4	39	0.17	0.0024	0.027	0.30	0.0038	0.043
09/08/14		7:55	4,247.0	305,370	109,060	244,930	4.72	<50	0.89	12	<0.10	0.0020	0.023	<0.40	0.0057	0.066
10/02/14	2	7:25	4,823.0	458,740	153,370	398,300	4.44	<50	0.77	11	<0.06	0.0011	0.015	<0.47	0.0068	0.081
11/03/14		7:58	5,265.0	618,930	160,190	558,490	6.04	<50	<0.50	13	<0.07	<0.001	0.016	<0.53	<0.008	0.097
12/04/14	3	6:55	5,271.0	621,440	2,510	561,000	6.97	<50	0.98	21	<0.001	<0.00002	0.0004	<0.53	<0.008	0.097
01/05/15		7:46	5,873.0	875,710	254,270	815,270	7.04	<50	5.4	29	<0.106	<0.00677	0.0530	<0.64	<0.014	0.150
02/02/15		6:47	5,926.0	898,290	22,580	837,850	7.10	<50	2.4	22	<0.009	<0.00073	0.0048	<0.65	<0.015	0.155
03/10/15	4	7:05	5,941.0	904,000	5,710	843,560	6.34	<50	1.5	21	<0.002	<0.00009	0.0010	<0.65	<0.015	0.156
03/23/15	5	--	6,015.0	927,780	23,780	867,340	5.36	--	--	--	<0.010	<0.00030	0.0042	<0.66	<0.016	0.160
05/05/15	6	7:32	6,018.0	929,200	1,420	868,760	7.89	96	5.0	19	<0.001	<0.00006	0.0002	<0.66	<0.016	0.160
06/02/15	7	5:35	6,233.0	979,100	49,900	918,660	3.87	<50	<0.50	7.7	<0.030	<0.00115	0.0056	<0.69	<0.017	0.166
07/01/15		5:55	6,929.0	1,122,860	143,760	1,062,420	3.44	<50	<0.50	6.9	<0.060	<0.00060	0.0088	<0.75	<0.017	0.175
08/03/15	8	6:23	7,410.0	1,220,100	97,240	1,159,660	3.37	<50	<0.50	9.6	<0.041	<0.00041	0.0067	<0.79	<0.018	0.181
09/01/15		5:28	7,903.0	1,299,690	79,590	1,239,250	2.69	<50	<0.50	9.7	<0.033	<0.00033	0.0064	<0.83	<0.018	0.188
10/06/15		5:55	8,744.0	1,469,360	169,670	1,408,920	3.36	<50	<0.50	5.9	<0.071	<0.00071	0.0110	<0.90	<0.019	0.199

Legend / Key:

GRO = Gasoline Range Organics C4-C13 µg/L = micrograms per liter
MTBE = Methyl tertiary butyl ether gpm = gallons per minute

lbs = pounds
-- = data not collected/not calculated

Analytical Methods /Laboratory:

GRO analyzed using EPA Method SW8015B/SW8260B
Benzene and MTBE analyzed using EPA Method SW8260B
Alpha Analytical, Inc. (ELAP # 2019)

^a Not representative of actual flow rate, calculation affected by system down time.

^b Mass removed this period (pounds) = Average concentration (µg/L) [between the sample dates] x Period gallons x (2.2046 x 10⁻⁹)(lb/µg) / 0.26418 (gal/L)

¹ Hour meter readings were not taken at exact sampling times, therefore, times noted are readings obtained closest to the actual sampling times.

TABLE 9
GROUNDWATER EXTRACTION COMPONENT - OPERATIONAL PERFORMANCE AND MASS REMOVAL SUMMARY
DPE REMEDIATION EVENT

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Notes:

- 1 DPE extracting from extraction wells EX-2 through EX-7.
- 2 DPE extracting from extraction wells EX-1 through EX-7.
- 3 DPE extracting from extraction wells EX-1, EX-5 and EX-6.
- 4 DPE extracting from extraction wells EX-1 and EX-5.
- 5 Mass removed is based on analytical results obtained during March 10, 2015 sampling event.
- 6 System was non-operational between March 23 and May 5, 2015 due to budget constraints. After maintenance, the system was re-started for continuous operation on May 20, 2015, extracting from wells EX-3, EX-6, MW-5A and MW-6A.
- 7 DPE extracting from extraction wells EX-1, MW-5A and MW-6A.
- 8 DPE extracting from extraction wells EX-1, EX-6, MW-5A and MW-6A.