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Alameda County  
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**ENVIRONMENTAL ENGINEERING, INC.**  
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January 20, 2012

Ms. Audrey Comeaux  
East Bay Municipal Utility District  
P. O. Box 24055  
Oakland, CA 94623-1055

Re: 3820 Manila Avenue, Oakland, CA  
**Wastewater Discharge Permit No. 50638151**

Dear Ms. Comeaux:

As you requested, enclosed is SOMA's "Second Semi-Annual 2011 Self-Monitoring Report" for the subject permit. This report has been uploaded to the State's GeoTracker database.

Thank you for your time in reviewing our report. If you have any questions or comments, please call me at (925) 734-6400.

Sincerely,

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist



Enclosure

cc: Mr. Jerry Wickham, Alameda County Dept. of Env. Health w/o enclosure  
Mr. Albert M. Cohen, LOEB&LOEB LLP w/enclosure

**Second Semi-Annual 2011 Self-Monitoring Report  
Treatment System Discharge to EBMUD Sewer  
For Permit No. 50638151**

**The Former Glovatorium Facility  
3820 Manila Avenue  
Oakland, California**

**January 20, 2012**

**Project 2515**

**Prepared for:**

**Loeb & Loeb LLP  
10100 Santa Monica Boulevard, Suite 2200  
Los Angeles, California 90067-4164**



**ENVIRONMENTAL ENGINEERING, INC.**

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## Certification Statement

Stuart Depper  
Name

Responsible Party  
Title

3820 Manila Avenue  
Street Address

Oakland  
City

94609  
Zip

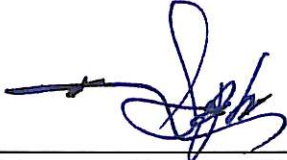
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage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

  
Signature

1-20-12  
Date

## CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report for the Law Offices of Loeb & Loeb LLP, to comply with East Bay Municipal Utility District requirements for discharge of extracted and treated groundwater resulting from cleanup of groundwater using Multi-Phase Extraction technology.



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Mansour Sepehr, PhD, PE  
Principal Hydrogeologist



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## **1. INTRODUCTION**

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report for the Law Offices of Loeb & Loeb LLP on behalf of their client, the owners of the subject property. The property, the former Glovatorium, is located at 3820 Manila Avenue (formerly known as 3815 Broadway), Oakland, California.

This report presents a record of wastewater discharged from the remediation system located at 3820 Manila Avenue, Oakland, California into the East Bay Municipal Utility District (EBMUD) sewer system for the period of July to December 2011 as per requirements of the wastewater discharge permit. The remediation system is operated by SOMA Environmental Engineering, Inc. (SOMA).

## **2. MULTI-PHASE EXTRACTION PILOT TESTING AND TREATMENT SYSTEM OPERATION**

SOMA began discharging treated groundwater from operation of Multi-Phase Extraction (MPE) pilot testing into the EBMUD sewer system on September 15, 2008 after receipt of the Special Discharge Permit issued by EBMUD. The extraction was discontinued in October 2008 and resumed on December 17, 2008. After expiration of the Special Discharge Permit EBMUD issued a Wastewater Discharge permit on September 17, 2009 for discharge from MPE operation on the site

Approximately 251,043 gallons of groundwater have been treated and discharged into the EBMUD sewer system during the MPE event (as of December 23, 2011). During current reporting period, SOMA has been shutting down the MPE system over the weekends. Hence the treatment system was offline for weekends and also over the Christmas and New Year holidays from December 24, 2011 through January 2, 2012.

The groundwater extracted during the MPE is treated by the treatment system consisting of one 1,000-lb granular activated carbon (GAC-1) unit followed by one 55 gallon carbon polishing vessel. SOMA conducts regular system maintenance to ensure compliance with the EBMUD wastewater discharge permit. Most recent carbon change-out was conducted on both carbon units on August 13, 2010.

During this reporting period treatment system effluent samples (PSP-1) were collected on September 12, 2011 and December 7, 2011. Appendix A includes laboratory reports for treatment system samples collected during the quarterly sampling event (September and December 2011)

Table 1 shows the total volume of effluent discharged into the EBMUD sewer system, historical laboratory analysis results of samples collected from effluent of the treatment system, and pertinent maintenance history.

### **3. CONCLUSIONS**

1. Approximately 251,043 gallons of groundwater have been treated and discharged into the EBMUD sewer system during the MPE event (as of December 23, 2011). Since the previous reporting date July 1, 2011, approximately 64,718 gallons of groundwater has been treated and discharged into the on-site sewer main.
2. During the current reporting period effluent samples were in compliance with the discharge permit requirements. Therefore, the remedial system has remained in compliance with the EBMUD permit conditions

# **TABLE 1**

## **Total Volume of Water Treated, Operational Data, and Effluent Analytical Results**



**Table 1**  
**Total Volume of Water Treated, Operational Data,**  
**and Laboratory Analytical Results for Effluent Samples**  
**3820 Manila Ave, Oakland, California**

Effluent		Lab Results for PSP-1 and Operation of Treatment System									
	Totalizer Reading	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	cis-1,2-DCE	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Acetone
Date	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
9/15/2008	1,010	Special Discharge permit issued, started discharging to EBMUD Sewer									
9/16/2008	1,312	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/17/2008	1,417	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/18/2008	1,582	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/19/2008	2,071	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/22/2008	2,327	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/23/2008	2,440	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/9/2008	2,490	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/13/2008	2,490	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/14/2008	3,178	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/15/2008	3,378	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/16/2008	3,568	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/17/2008	3,842	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10/20/2008	3,894	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	17
10/22/2008	3,904	Discharge to EBMUD sewer system discontinued									

**Table 1**  
**Total Volume of Water Treated, Operational Data,**  
**and Laboratory Analytical Results for Effluent Samples**  
**3820 Manila Ave, Oakland, California**

Date	Effluent Totalizer Reading (gallons)	Lab Results for PSP-1 and Operation of Treatment System									
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5- Trimethylb enzene (µg/L)	1,2,4- Trimethylb enzene (µg/L)	Acetone (µg/L)
12/17/2008	3,904	Discharge to EBMUD sewer system resumed									
12/18/2008	4,461	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/19/2008	4,620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		No discharge on Dec 20 and 21, 2008									
12/22/2008	4,620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		No discharge from Dec 23 to Dec 28, 2008									
12/29/2008	4,640	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/30/2008	5,414	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/31/2008	5,632	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		No discharge from Jan 1 to Jan 4, 2009									
1/5/2009	5,632	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/6/2009	6,374	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<50
1/7/2009	6,988	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/8/2009	7,988	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/9/2009	8,299	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/12/2009	9,025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/13/2009	9,029	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/14/2009	9,029	System shut down and remained off overnight									
1/16/2009	9,195	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/19/2009	9,242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/20/2009	9,570	System down upon arrival and restarted shortly after inspection									

**Table 1**  
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**3820 Manila Ave, Oakland, California**

	Effluent	Lab Results for PSP-1 and Operation of Treatment System									
	Totalizer Reading (gallons)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Acetone (µg/L)
Date	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
1/21/2009	10,075	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/26/2009	10,299	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/27/2009	10,805	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/28/2009	12,517	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/29/2009	13,373	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/30/2009	14,313	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/2/2009	14,992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/3/2009	15,962	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/4/2009	15,989	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/5/2009	15,989	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/13/2009	16,213	Installed new transfer pump motor on 2/16/09									
2/19/2009	18,332	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/20/2009	19,272	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/24/2009	21,299	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/27/2009	21,387	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/28/2009	21,595	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	Totalizer Reading	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	cis-1,2-DCE	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Acetone
Date	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
3/9/2009	27,066	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/10/2009	27,863	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/11/2009	29,562	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/12/2009	31,885	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/13/2009	31,944	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/16/2009	33,184	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/17/2009	33,298	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/18/2009	33,471	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/19/2009	35,947	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/20/2009	36,472	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/23/2009	38,962	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/24/2009	40,307	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/25/2009	40,396	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/26/2009	42,445	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/27/2009	43,427	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/30/2009	43,457	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3/31/2009	45,845	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	Totalizer Reading	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	cis-1,2-DCE	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Acetone
Date	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
4/1/2009	46,532	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/2/2009	46,589	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/3/2009	47,758	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/6/2009	50,877	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/7/2009	52,058	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/8/2009	52,507	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/13/2009	53,805	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/14/2009	54,061	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/15/2009	54,271	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/16/2009	54,457	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/17/2009	54,665	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/20/2009	55,381	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/21/2009	55,603	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/22/2009	55,803	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/23/2009	55,997	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	0.5	0.6	<10
4/24/2009	56,224	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/27/2009	56,839	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/28/2009	57,046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/29/2009	57,258	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/30/2009	57,454	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1**  
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		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5- Trimethylb enzene (µg/L)	1,2,4- Trimethylb enzene (µg/L)	Acetone (µg/L)
5/1/2009	57,623	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/7/2009	59,779	5/4-5/6 System shut down for on-site soil investigation									
5/8/2009	59,779	Carbon change-out of 1000 lb liquid phase vessel and 55 gal. polishing vessel									
5/11/2009	63,401	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/12/2009	64,127	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/13/2009	64,858	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/14/2009	65,801	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/15/2009	66,591	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/18/2009	68,048	System shut down from 5/18/09 to 5/21/09 for installation of new extraction wells									
5/21/2009	68,084	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/22/2009	69,117	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/26/2009	70,161	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/27/2009	71,792	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/28/2009	73,061	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/29/2009	74,601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	Totalizer Reading (gallons)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Acetone (µg/L)
6/1/2009	76,684	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/2/2009	77,310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/3/2009	77,793	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/4/2009	78,087	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/5/2009	78,477	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/8/2009	79,507	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/9/2009	79,652	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/10/2009	79,822	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/12/2009	80,166	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/15/2009	80,298	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/16/2009	80,431	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/17/2009	80,526	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/18/2009	80,622	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/19/2009	80,642	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/22/2009	80,869	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/23/2009	81,095	Totalizer site glass broke/ Replaced totalizer on 6/24									
6/25/2009	82,095	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/26/2009	82,845	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/29/2009	84,495	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/30/2009	84,995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	Totalizer Reading	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	cis-1,2-DCE	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Acetone
Date	(gallons)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
7/1/2009	85,475	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/2/2009	85,808	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/3/2009	85,968	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/6/2009	86,225	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/7/2009	86,365	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/8/2009	86,425	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/9/2009	86,525	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/10/2009	86,615	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/13/2009	86,853	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/14/2009	87,485	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/15/2009	88,161	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/16/2009	88,624	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/17/2009	89,040	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/20/2009	89,295	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/21/2009	89,741	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/22/2009	90,452	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/2009	91,032	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/24/2009	91,565	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/27/2009	92,965	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/28/2009	93,441	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



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	Totalizer Reading (gallons)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Acetone (µg/L)
7/29/2009	93,523	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/30/2009	93,571	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/31/2009	94,397	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/3/2009	95,522	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/4/2009	96,027	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/5/2009	96,587	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/6/2009	97,203	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/7/2009	97,639	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/10/2009	98,549	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/14/2009	98,620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/17/2009	99,026	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/18/2009	99,149	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/19/2009	99,380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/20/2009	99,433	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/21/2009	99,478	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/24/2009	99,607	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/25/2009	99,677	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/26/2009	99,726	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/27/2009	99,854	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/28/2009	100,067	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8/31/2009	100,465	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1**  
**Total Volume of Water Treated, Operational Data,**  
**and Laboratory Analytical Results for Effluent Samples**  
**3820 Manila Ave, Oakland, California**

Date	Effluent	Lab Results for PSP-1 and Operation of Treatment System									
	Totalizer Reading (gallons)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	Acetone (µg/L)
9/1/2009	100,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/2/2009	100,737	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/3/2009	100,778	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/4/2009	100,943	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/8/2009	101,425	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/10/2009	101,629	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/17/2009	Wastewater Discharge Permit issued by EBMUD, resumed discharge on Sep 21, 2009										
9/23/2009	102,465	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	31
10/8/2009	103,982	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/8/2009	112,361	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/11/2009	116,339	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
12/14/2009	116,589	Treatment system shut down									
8/13/2010	116,589	Carbon change-out of 1000 lb liquid phase vessel and 55 gal. polishing vessel and restart on 8/16 System down from 8/20 to 8/26 and 8/27 to 9/2 for equipment repair									
9/8/2010	118,009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
10/8/2010	120,995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/8/2010	122,980	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12/8/2010	126,785	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
12/14/2010	126,840	Treatment system shut down from 12/8/10 to 12/13/10 due to wet weather									
12/22/2010	127,201	Treatment system shut down from 12/14/10 to 12/21/10 for equipment upgrade and 12/23/10 to 1/3/11 for holiday									

**Table 1**  
**Total Volume of Water Treated, Operational Data,**  
**and Laboratory Analytical Results for Effluent Samples**  
**3820 Manila Ave, Oakland, California**

Date	Effluent Totalizer Reading (gallons)	Lab Results for PSP-1 and Operation of Treatment System									
		Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	1,3,5- Trimethylb enzene (µg/L)	1,2,4- Trimethylb enzene (µg/L)	Acetone (µg/L)
1/10/2011	128,593	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/14/2011	129,055	Treatment system offline from 1/14/11 to 1/31/11 for installation and troubleshooting of new Ecat system									
2/9/2011	131,963	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>3/17/2011</b>	<b>154,100</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;10</b>
4/15/2011	178,235	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/26/2011	183,503	Treatment system offline from 4/26/11 through 6/28/11									
6/28/2011	183,635	Restart extraction									
6/30/2011	185,585	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>7/1/2011</b>	<b>186,325</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;10</b>
8/12/2011	212,065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>9/12/2011</b>	<b>223,915</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;10</b>
10/12/2011	235,405	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/11/2011	245,555	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>12/7/2011</b>	<b>249,145</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;10</b>
12/23/2011	251,043	System shut down for holidays (12/24/11 to 1/1/2012)									

Notes:

ND, < : Not Detected above laboratory reporting limits

NA: Not Analyzed

PCE: Tetrachloroethene

TCE: Trichloroethene

cis-1,2-DCE: cis-1,2-Dichloroethene

# **APPENDIX A**

## **Laboratory Results and Chain of Custody Forms for the Treatment System**

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Second Semi-Annual 2011 Self-Monitoring Report: Treatment System Discharge to EBMUD Sewer



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 230984  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc. 6620 Owens Dr. Pleasanton, CA 94588	Project : 2515 Location : 3820 Manila Ave Oakland, Ca Level : II
-------------------------------------------------------------------------------	------------------------------------------------------------------------

<u>Sample ID</u>	<u>Lab ID</u>
PSP-1	230984-001
GAC-1	230984-002
INFLUENT	230984-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:   
Project Manager

Date: 09/19/2011

NELAP # 01107CA

**CASE NARRATIVE**

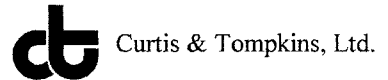
Laboratory number: 230984  
Client: SOMA Environmental Engineering Inc.  
Project: 2515  
Location: 3820 Manila Ave Oakland, Ca  
Request Date: 09/12/11  
Samples Received: 09/12/11

This data package contains sample and QC results for three water samples, requested for the above referenced project on 09/12/11. The samples were received cold and intact.

**Volatile Organics by GC/MS (EPA 8260B):**  
No analytical problems were encountered.



COOLER RECEIPT CHECKLIST



Login # 230984 Date Received 9/12/11 Number of coolers 1
Client SOMA ENVIRONMENTAL Project 2515

Date Opened 9/12/11 By (print) I. CHOI (sign) [Signature]
Date Logged in [Arrow] By (print) [Arrow] (sign) [Arrow]

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
Shipping info

2A. Were custody seals present? ... [ ] YES (circle) on cooler on samples [X] NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO (N/A)

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)

- [ ] Bubble Wrap [X] Foam blocks [ ] Bags [ ] None
[ ] Cloth material [ ] Cardboard [ ] Styrofoam [ ] Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C

Type of ice used: [ ] Wet [X] Blue/Gel [ ] None Temp(°C)

[X] Samples Received on ice & cold without a temperature blank

[X] Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES (NO)

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Did you check preservatives for all bottles for each sample? YES NO N/A

16. Did you document your preservative check? YES NO N/A

17. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A

18. Are bubbles > 6mm absent in VOA samples? YES NO N/A

19. Was the client contacted concerning this sample delivery? YES (NO) NC
If YES, Who was called? Ruck By [Signature] Date: 9-12-11

COMMENTS
(2) DID NOT RECEIVE ANY PSP-1 SAMPLES!
rather, rec'd 4 VOAs labeled EFFLUENT 9/12/11 10AM NOT on CDC.
Please use sample ID PSP-1



### Purgeable Organics by GC/MS

Lab #: 230984	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: PSP-1	Batch#: 178903
Lab ID: 230984-001	Sampled: 09/12/11
Matrix: Water	Received: 09/12/11
Units: ug/L	Analyzed: 09/13/11
Diln Fac: 1.000	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 230984	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: PSP-1	Batch#: 178903
Lab ID: 230984-001	Sampled: 09/12/11
Matrix: Water	Received: 09/12/11
Units: ug/L	Analyzed: 09/13/11
Diln Fac: 1.000	

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	125	73-145
Toluene-d8	103	80-120
Bromofluorobenzene	114	80-120

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 230984	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: GAC-1	Batch#: 178903
Lab ID: 230984-002	Sampled: 09/12/11
Matrix: Water	Received: 09/12/11
Units: ug/L	Analyzed: 09/13/11
Diln Fac: 1.000	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 230984	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: GAC-1	Batch#: 178903
Lab ID: 230984-002	Sampled: 09/12/11
Matrix: Water	Received: 09/12/11
Units: ug/L	Analyzed: 09/13/11
Diln Fac: 1.000	

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-127
1,2-Dichloroethane-d4	128	73-145
Toluene-d8	103	80-120
Bromofluorobenzene	113	80-120

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 230984	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: INFLUENT	Batch#: 178903
Lab ID: 230984-003	Sampled: 09/12/11
Matrix: Water	Received: 09/12/11
Units: ug/L	Analyzed: 09/13/11
Diln Fac: 1.000	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	1.9	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	5.5	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	1.7	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	2.5	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 230984	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: INFLUENT	Batch#: 178903
Lab ID: 230984-003	Sampled: 09/12/11
Matrix: Water	Received: 09/12/11
Units: ug/L	Analyzed: 09/13/11
Diln Fac: 1.000	

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	0.7	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	0.8	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-127
1,2-Dichloroethane-d4	129	73-145
Toluene-d8	103	80-120
Bromofluorobenzene	113	80-120

ND= Not Detected  
 RL= Reporting Limit



**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	230984	Location:	3820 Manila Ave Oakland, Ca
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2515	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC608837	Batch#:	178903
Matrix:	Water	Analyzed:	09/13/11
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit



**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	230984	Location:	3820 Manila Ave Oakland, Ca
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2515	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC608837	Batch#:	178903
Matrix:	Water	Analyzed:	09/13/11
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	104	80-127
1,2-Dichloroethane-d4	124	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	113	80-120

ND= Not Detected

RL= Reporting Limit



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 233177  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc. 6620 Owens Dr. Pleasanton, CA 94588	Project : 2515 Location : 3820 Manila Ave Oakland, Ca Level : II
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<u>Sample ID</u>	<u>Lab ID</u>
PSP-1	233177-001
GAC-1	233177-002
INFLUENT	233177-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:   
Project Manager

Date: 12/12/2011

NELAP # 01107CA

### CASE NARRATIVE

Laboratory number: 233177  
Client: SOMA Environmental Engineering Inc.  
Project: 2515  
Location: 3820 Manila Ave Oakland, Ca  
Request Date: 12/07/11  
Samples Received: 12/07/11

This data package contains sample and QC results for three water samples, requested for the above referenced project on 12/07/11. The samples were received cold and intact.

**Volatile Organics by GC/MS (EPA 8260B):**

Styrene was detected above the RL in the method blank for batch 181972; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.



**COOLER RECEIPT CHECKLIST**



Login # 233177 Date Received 12/7/11 Number of coolers 1  
 Client SOMA ENVIRONMENTAL Project 2515

Date Opened 12/7/11 By (print) J. CHOI (sign) [Signature]  
 Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) \_\_\_\_\_ YES  NO  
 Shipping info \_\_\_\_\_

2A. Were custody seals present? ....  YES (circle) on cooler on samples  NO  
 How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

2B. Were custody seals intact upon arrival? \_\_\_\_\_ YES NO  N/A

3. Were custody papers dry and intact when received?  YES NO

4. Were custody papers filled out properly (ink, signed, etc)?  YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form)  YES NO

6. Indicate the packing in cooler: (if other, describe) \_\_\_\_\_

- Bubble Wrap  Foam blocks  Bags  None
- Cloth material  Cardboard  Styrofoam  Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C  
 Type of ice used:  Wet  Blue/Gel  None Temp(°C) \_\_\_\_\_

Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? \_\_\_\_\_ YES  NO  
 If YES, what time were they transferred to freezer? \_\_\_\_\_

9. Did all bottles arrive unbroken/unopened?  YES NO

10. Are there any missing / extra samples? \_\_\_\_\_ YES  NO

11. Are samples in the appropriate containers for indicated tests? \_\_\_\_\_ YES  NO

12. Are sample labels present, in good condition and complete? \_\_\_\_\_ YES  NO

13. Do the sample labels agree with custody papers? \_\_\_\_\_ YES  NO

14. Was sufficient amount of sample sent for tests requested? \_\_\_\_\_ YES  NO

15. Are the samples appropriately preserved?  YES NO N/A

16. Did you check preservatives for all bottles for each sample? \_\_\_\_\_ YES NO  N/A

17. Did you document your preservative check? \_\_\_\_\_ YES NO  N/A

18. Did you change the hold time in LIMS for unpreserved VOAs? \_\_\_\_\_ YES NO  N/A

19. Did you change the hold time in LIMS for preserved terracores? \_\_\_\_\_ YES NO  N/A

20. Are bubbles > 6mm absent in VOA samples?  YES NO N/A

21. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES  NO  
 If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

**COMMENTS**

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### Purgeable Organics by GC/MS

Lab #: 233177	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: PSP-1	Batch#: 181972
Lab ID: 233177-001	Sampled: 12/07/11
Matrix: Water	Received: 12/07/11
Units: ug/L	Analyzed: 12/07/11
Diln Fac: 1.000	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 233177	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: PSP-1	Batch#: 181972
Lab ID: 233177-001	Sampled: 12/07/11
Matrix: Water	Received: 12/07/11
Units: ug/L	Analyzed: 12/07/11
Diln Fac: 1.000	

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	90	73-145
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 233177	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: GAC-1	Batch#: 181972
Lab ID: 233177-002	Sampled: 12/07/11
Matrix: Water	Received: 12/07/11
Units: ug/L	Analyzed: 12/07/11
Diln Fac: 1.000	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit



### Purgeable Organics by GC/MS

Lab #: 233177	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: GAC-1	Batch#: 181972
Lab ID: 233177-002	Sampled: 12/07/11
Matrix: Water	Received: 12/07/11
Units: ug/L	Analyzed: 12/07/11
Diln Fac: 1.000	

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-127
1,2-Dichloroethane-d4	91	73-145
Toluene-d8	102	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 233177	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: INFLUENT	Batch#: 181972
Lab ID: 233177-003	Sampled: 12/07/11
Matrix: Water	Received: 12/07/11
Units: ug/L	Analyzed: 12/07/11
Diln Fac: 1.000	

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	4.4	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	0.6	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	1.6	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #: 233177	Location: 3820 Manila Ave Oakland, Ca
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2515	Analysis: EPA 8260B
Field ID: INFLUENT	Batch#: 181972
Lab ID: 233177-003	Sampled: 12/07/11
Matrix: Water	Received: 12/07/11
Units: ug/L	Analyzed: 12/07/11
Diln Fac: 1.000	

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	24	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	1.1	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	1.0	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-127
1,2-Dichloroethane-d4	91	73-145
Toluene-d8	96	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	233177	Location:	3820 Manila Ave Oakland, Ca
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2515	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	181972
Units:	ug/L	Analyzed:	12/07/11
Diln Fac:	1.000		

Type: BS Lab ID: QC621553

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	21.01	84	64-133
Benzene	25.00	22.84	91	80-122
Trichloroethene	25.00	21.98	88	78-120
Toluene	25.00	24.28	97	80-120
Chlorobenzene	25.00	24.07	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC621554

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	19.83	79	64-133	6	20
Benzene	25.00	21.83	87	80-122	5	20
Trichloroethene	25.00	21.07	84	78-120	4	20
Toluene	25.00	23.21	93	80-120	4	20
Chlorobenzene	25.00	23.26	93	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	233177	Location:	3820 Manila Ave Oakland, Ca
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2515	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC621555	Batch#:	181972
Matrix:	Water	Analyzed:	12/07/11
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	0.6 b	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5

b= See narrative  
 ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	233177	Location:	3820 Manila Ave Oakland, Ca
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2515	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC621555	Batch#:	181972
Matrix:	Water	Analyzed:	12/07/11
Units:	ug/L		

Analyte	Result	RL
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-127
1,2-Dichloroethane-d4	90	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-120

b= See narrative  
 ND= Not Detected  
 RL= Reporting Limit