

**RECEIVED**

2:03 pm, Mar 17, 2009

Alameda County  
Environmental Health



**ENVIRONMENTAL ENGINEERING, INC.**  
6620 Owens Drive, Suite A • Pleasanton, CA 94588  
TEL (925)734-6400 • FAX (925)734-6401

March 13, 2009

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:

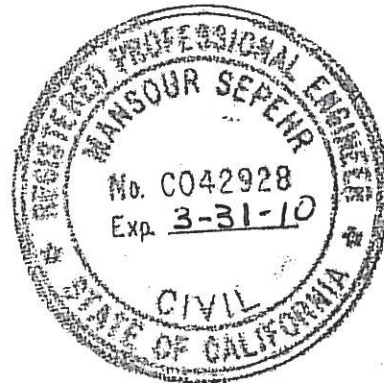
As you requested, enclosed is SOMA's "Technical Report Treatment System Discharge to EBMUD Sewer January 16-March 9, 2009" for the subject permit. This report has been uploaded to the State's GeoTracker database.

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

**Technical Report  
Treatment System Discharge to EBMUD Sewer  
For Permit No. 50638151  
January 16, 2009 through March 9, 2009**

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

**March 13, 2009**

**Project 2515**

**Prepared for:**

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



**ENVIRONMENTAL ENGINEERING, INC.**

6620 Owens Drive Suite A Pleasanton CA 94588 Ph: 925.734.6400 F: 925.734-6401 [www.somaenv.com](http://www.somaenv.com)

## 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

3/13/2009  
Date

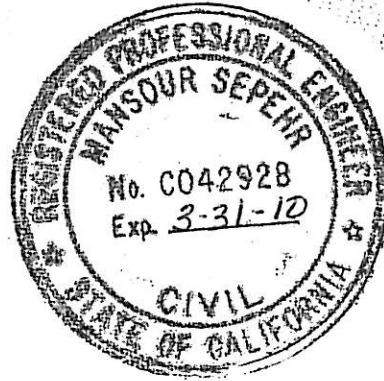
## CERTIFICATION

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.



---

Mansour Sepehr, PhD, PE  
Principal Hydrogeologist



## **TABLE OF CONTENTS**

CERTIFICATION .....	i
LIST OF TABLES.....	ii
LIST OF APPENDICES .....	ii
1. INTRODUCTION .....	1
2. Multi-PHASE EXTRACTION PILOT TESTING AND TREATMENT SYSTEM OPERATION.....	1
3. CONCLUSIONS .....	1

## **LIST OF TABLES**

Table 1:	Total Volume of Water Treated, Operational Data, and Effluent and GAC-1 Analytical Results
----------	---

## **LIST OF APPENDICES**

Appendix A:	Log of Totalizer Readings
-------------	---------------------------

## **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 3815 Broadway, Oakland, California into the East Bay Municipal Utility District (EBMUD) sewer system for the reporting period of January 16, 2009 through March 9, 2009. The remediation system was 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. The extraction was discontinued in October 2008. Therefore no discharge occurred between October 22, 2008 and December 17, 2008.

Extraction was resumed on December 17, 2008. During the reporting period of January 16, 2009 to March 9, 2009, approximately 18,037 gallons of groundwater were treated and discharged into the EBMUD sewer system during the MPE event.

The groundwater extracted during the MPE was treated by the treatment system consisting of one 1000-lb granular activated carbon unit followed by one 55 gallon carbon polishing vessel. SOMA conducted regular system maintenance to ensure compliance with the EBMUD wastewater discharge permit.

Table 1 shows the daily and total volume of effluent discharged into the EBMUD sewer system and laboratory analysis results of samples collected from effluent of the treatment system. Appendix A includes the log of totalizer readings as required by the discharge permit.

## **3. CONCLUSIONS**

From January 16, 2009 to March 9, 2009, approximately 18,037 gallons of groundwater was treated and discharged into the on-site sewer main;

1. The permit specifies an allowable discharge rate of 100 gallons per minute or approximately 144,000 gallons per day. During the above mentioned

reporting period, approximately 340 gallons/day were discharged to the site sewer main.

2. Therefore, based on the discharge flow rate, 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**  
**3815 Broadway, Oakland, California**

Effluent		Lab Results and for Effluent Samples and Operation of Treatment System											
Date	Totalizer Reading (gallons)	2-Butanone (ug/L)	Arsenic (ug/L)	Chromium (ug/L)	Copper (ug/L)	Iron (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Silver (ug/L)	Zinc (ug/L)	Total Oil & Grease (HEM) (ug/L)	pH
9/15/2008	1,010	Started discharging to EBMUD Sewer											
9/16/2008	1,312	NA	NA	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	NA	NA
9/18/2008	1,582	NA	NA	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	NA	NA
9/22/2008	2,327	NA	NA	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	NA	NA
10/9/2008	2,490	NA	NA	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	NA	NA
10/14/2008	3,178	NA	NA	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	NA	NA
10/16/2008	3,568	NA	NA	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	NA	NA
<b>10/20/2008</b>	<b>3,894</b>	<b>36</b>	<b>1.9</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>&lt;50</b>	<b>&lt;1.0</b>	<b>3.1</b>	<b>&lt;1.0</b>	<b>&lt;1.0</b>	<b>5.2</b>	<b>&lt;4.7</b>	<b>7.6</b>
10/22/2008	3,904	Discharge to EBMUD sewer system discontinued											
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	NA	NA
12/19/2008	4,620	NA	NA	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	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	NA	NA
12/30/2008	5,414	NA	NA	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	NA	NA

**Table 1**  
**Total Volume of Water Treated, Operational Data,**  
**and Laboratory Analytical Results for Effluent Samples**  
**3815 Broadway, Oakland, California**

Date	Effluent	Lab Results and for Effluent Samples and Operation of Treatment System											
	Totalizer Reading (gallons)	2-Butanone (ug/L)	Arsenic (ug/L)	Chromium (ug/L)	Copper (ug/L)	Iron (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Silver (ug/L)	Zinc (ug/L)	Total Oil & Grease (HEM) (ug/L)	pH
		No discharge from Jan 1 to Jan 4 , 2009											
1/5/2009	5,632	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>1/6/2009</b>	<b>6,374</b>	<b>&lt;50</b>	<b>5.5</b>	<b>15</b>	<b>5.6</b>	<b>430</b>	<b>&lt;1.0</b>	<b>&lt;0.20</b>	<b>1.6</b>	<b>&lt;1.0</b>	<b>5.3</b>	<b>4,910</b>	<b>7.1</b>
1/7/2009	6,988	NA	NA	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	NA	NA
1/9/2009	8,299	NA	NA	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	NA	NA
1/13/2009	9,029	NA	NA	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	NA	NA
1/19/2009	9,242	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1/20/2009	9,570	System down upon arrival and restarted shortly after inspection											
1/21/2009	10,075	NA	NA	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	NA	NA
1/27/2009	10,805	NA	NA	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	NA	NA
1/29/2009	13,373	NA	NA	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	NA	NA
2/2/2009	14,992	NA	NA	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	NA	NA
2/4/2009	15,989	NA	NA	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	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	NA	NA
2/20/2009	19,272	NA	NA	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	NA	NA
2/27/2009	21,387	NA	NA	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	NA	NA

**Table 1**  
**Total Volume of Water Treated, Operational Data,**  
**and Laboratory Analytical Results for Effluent Samples**  
**3815 Broadway, Oakland, California**

Effluent		Lab Results and for Effluent Samples and Operation of Treatment System											
Date	Totalizer Reading (gallons)	2-Butanone (ug/L)	Arsenic (ug/L)	Chromium (ug/L)	Copper (ug/L)	Iron (ug/L)	Lead (ug/L)	Mercury (ug/L)	Nickel (ug/L)	Silver (ug/L)	Zinc (ug/L)	Total Oil & Grease (HEM) (ug/L)	pH
3/9/2009	27,066	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Discharge Limits (µg/L)</b>		<b>100,000</b>	<b>2,000</b>	<b>1,000</b>	<b>5,000</b>	<b>100,000</b>	<b>2,000</b>	<b>50</b>	<b>5,000</b>	<b>1,000</b>	<b>5,000</b>	<b>100,000</b>	<b>&gt;5.5</b>

Notes:

ND, < : Not Detected above laboratory reporting limits

NA: Not Analyzed


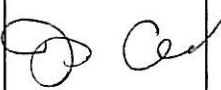




Y: Sample exhibits fuel pattern which does not resemble standard

# **APPENDIX A**

## **Log of Totalizer Readings**

**O & M Log**  
**3815 Broadway, Oakland**

**O&M Checklist**

Date & Time	1/14/9 0930	1/16/9 1030	1/19/9 1000	1/20/9 0930	1/21/9 0930	1/26/9 1130
Record Totalizer Reading	9,029	9,195	9,242	9,570	10,075	10,299
Check for water leaks in system	✓	✓	✓	✓	✓	✓
Carbon change-out performed	no	no	no	no	no	no
Signature (Site Manager)						
Notes:	1/14/9 - system shut down and remained off overnight					
	1/20/9 - system down upon arrival and restarted shortly after inspection					

**O & M Log**  
3815 Broadway, Oakland

**O&M Checklist**

Date & Time	1/27/9 1030	1/28/9 1000	1/29/9 0730	1/30/9 0930	2/2/9 1230	2/3/9 1500
Record Totalizer Reading	10,805	12,517	13,373	14,313	14,992	15,962
Check for water leaks in system	✓	✓	✓	✓	✓	✓
Carbon change-out performed	no	no	no.	no	no	no
Signature (Site Manager)	J a	J a	J a	J a	J a	J a
Notes:						


**O & M Log**  
3815 Broadway, Oakland

**O&M Checklist**

Date & Time	2/4/9 1300	2/5/9 1330	2/13/9 0900	2/19/9 1000	2/20/9 1000	2/24/9 1000
Record Totalizer Reading	15,989	15,989	16,213	18,332	19,272	21,299
Check for water leaks in system	✓	✓	✓	✓	✓	✓
Carbon change-out performed	no	no	no	no	no	no
Signature (Site Manager)	<i>J. A.</i>	<i>J. A.</i>	<i>J. A.</i>	<i>J. A.</i>	<i>J. A.</i>	<i>J. A.</i>
Notes:	2/16/9 - installed new transfer pump motor					

**O & M Log**  
**3815 Broadway, Oakland**

**O&M Checklist**

Date & Time	2/27/9 1230	2/28/9 -	3/2/9 1100			
Record Totalizer Reading	21,387	21,595	27,066			
Check for water leaks in system	✓	-	✓			
Carbon change-out performed	no	no	no			
Signature (Site Manager)						
Notes:	<hr/> <hr/> <hr/> <hr/> <hr/>					