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Alameda County Environmental Health



January 5, 2010

Ms. Molly Ong
East Bay Municipal Utility District
EDMUD – Mail Slot #702
P. O. Box 24055
Oakland, CA 94623-1055

Re: 3609 International Boulevard, Oakland, California 94601 Wastewater Discharge Permit No. 504-27421

Dear Ms. Ong:

Enclosed is SOMA's "Semi-Annual Technical Report: Treatment System Discharge to EBMUD Sewer for Permit No. 504-27421 from July to December 2009" for the subject site. 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, PhD., PE Principal Hydrogeologist

Enclosure

cc: Mr. Abolghassem Razi w/enclosure Mr. Jerry Wickham w/o enclosure Alameda County Dept. of Env. Health



Semi-Annual Technical Report: Treatment System Discharge to EBMUD Sewer For Permit No. 5042742 1 July through December 2009

Tony's Express Auto Service 3609 International Boulevard Oakland, California

January 5, 2010

Project 2333

Prepared for Tony's Express Auto Service 3609 International Boulevard Oakland, California

Certification Statement

Chief Executive Officer		
Abolghassem Razi Name	Owner Title	***************************************
3609 International Boulevard Street Address	<u>Oakland</u> City	<u>94601</u> Zip
I certify under penalty of law that this prepared under my direction or superdesigned to assure that the qualified personal information submitted. Based on my information, the information submitted is, the true, accurate, and complete. I am aware submitting false information, including the knowing violations.	vision in accord onnel properly ga quiry of the pe s directly respond to the best of my that there are s	dance with a system ather and evaluate the rson or persons who onsible for gathering knowledge and belief, ignificant penalties for
Signature		

CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of Mr. Abolghassem Razi, property owner of 3609 International Boulevard, Oakland, California, to comply with East Bay Municipal Utility District requirements for discharge of extracted and treated groundwater resulting from cleanup of groundwater polluted by fuel leaks and other related wastes.

Mansour Sepehr, PhD, PE Principal Hydrogeologist



TABLE OF CONTENTS

CE	RTIFICATION	
LIS	T OF TABLES	i
LIS	T OF APPENDICES	i
1.	INTRODUCTION	1
2.	TREATMENT SYSTEM OPERATION	1
3.	CONCLUSIONS AND RECOMMENDATIONS	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: Laboratory Results and Chain of Custody Forms for Treatment System Samples

1. INTRODUCTION

This report presents a record of wastewater discharged from the remediation system located at 3609 International Boulevard, Oakland, California into the East Bay Municipal Utility District (EBMUD) sewer system from July through December 2009. The treatment system is operated by SOMA Environmental Engineering, Inc. (SOMA). SOMA prepared this report on behalf of Mr. Abolghassem Razi, the property owner.

2. TREATMENT SYSTEM OPERATION

The treatment system began operating on December 6, 1999. Approximately 4,336,830 gallons of groundwater have been treated and discharged into the EBMUD sewer system (as of December 30, 2009).

SOMA has conducted regular maintenance and sampling of the treatment system since system startup. Influent samples have been collected from the 200-gallon holding tank. Samples have been collected from effluent of the 2,000-pound granular activated carbon unit (GAC-1) and the treatment system effluent (PSP#1).

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

Appendix A includes laboratory reports for treatment system samples collected from July through December 2009.

3. CONCLUSIONS AND RECOMMENDATIONS

From the last reporting date, June 22, 2009 to December 30, 2009, approximately 91,160 gallons of groundwater have been treated and discharged into the on-site sewer main:

- 1. The permit specifies an allowable discharge rate of approximately 1,900 gallons per day. During this reporting period, approximately 477 gallons/day were discharged to the site sewer main.
- 2. Therefore, based on the discharge flow rate and non-detectable system effluent concentration levels, the remedial system has remained in compliance with the EBMUD permit conditions.

TABLE 1

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

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	SP #1 ¹ and	GAC-1 Sar	nples
Month	Date	Totalizer Reading (gallons)	MtBE ² (ug/L)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Total Xylenes (ug/L)
				2009			` •	
December	12/14/2009	4,323,550	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
September	9/4/2009	4,269,770	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
June	6/8/2009	4,239,570	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
March	3/17/2009	4,133,498	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
		<u> </u>		2008				
December	12/11/2008	4,013,030	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
September	9/8/2008	3,973,338	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
June	6/9/2008	3,927,778	<0.5	<50	<0.5	<2.0	<0.5	<2.0
			<0.5	<50	<0.5	<2.0	<0.5	<2.0
Мау	5/21/2008			55-gallor	polishing ve	essel chang	ed	
March	3/4/2008	3,839,508	<0.5	<50	<0.5	<2.0	<0.5	<2.0
			<0.5	<50	<0.5	<2.0	<0.5	<2.0
				2007				
October	10/31/2007	3,673,410	<0.5	<50	<0.5	<2.0	<0.5	<2.0
			<0.5	<50	<0.5	<2.0	<0.5	<2.0
July	7/27/2007	3,643,880	<0.5	<50	<0.5	<2.0	<0.5	<2.0
			<0.5	<50	<0.5	<2.0	<0.5	<2.0
Мау	5/17/2007	3,590,070	<0.5	<50	<0.5	<2.0	<0.5	<2.0
			<0.5	<50	<0.5	<2.0	<0.5	<2.0

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	P #1 ¹ and	GAC-1 Sar	nples
Month	Date	Totalizer Reading (gallons)	MtBE ² (ug/L)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Total Xylenes (ug/L)
April	4/27/2007	3,561,230	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<2.0 <2.0
	4/20/2007	3,546,800	Startup of groundwater extraction from the new extraction well EX As of this date, groundwater is being extracted from three wells at the (EX-1, West Riser, and Center Riser).					
March	3/16/2007	3,528,090	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<2.0 <2.0
February	2/22/2007	3,510,560	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<2.0 <2.0
	2/19/2007	3,508,300	Carbon Cha	ange-out of	2000 lb vess	el and 55 g	allon polishin	g vessel
January	1/16/2007	3,488,140	<0.5 1.37	<50 <50	<0.5 1.68	<2.0 <2.0	<0.5 1.25	<2.0 <2.0
				2006				
December	12/22/2006	3,469,890	<0.5 <0.5	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
November	11/20/2006	3,455,980	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<2.0 <2.0
October	10/18/2006	3,447,850	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
September	9/27/2006	3,441,500	<0.5 <0.5	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
August	8/14/2006	3,425,340	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
July	7/24/2006	3,414,800	<0.5 <0.5	<50 <50	<0.5 0.94	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
June	6/15/2006	3,387,940	Carbon Cha	ange-out of	2000 lb vess	el and 55 g	allon polishin	g vessel
	6/7/2006	3,379,880	<0.5 2.89	<50 <50	<0.5 5.3	<2.0 <2.0	<0.5 1.24	<1.0 4.91
Мау	5/18/2006	3,350,260	replaced ex	vietina 200 a	allon holding	tank with r	 newer 200 gal	lon tank
May	5/11/2006	3,337,750	<0.5 0.61	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
April	4/19/2006	3,268,110	<0.5 1.66	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
	4/10/2006	3,236,770	Carbon Cha	l ange-out of	l 2000 lb vess	l sel and 55 q	 allon polishin	l g vessel

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	SP #1 ¹ and	GAC-1 Sar	nples
Month	Date	Totalizer Reading (gallons)	MtBE ² (ug/L)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Total Xylenes (ug/L)
				2006			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
March	3/10/2006	3,220,570	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
February	2/10/2006	3,186,590	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
January	1/4/2006	3,122,610	<0.5 <0.5	<50 <50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
				2005				
December	12/9/2005	3,081,750	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
November	11/14/2005	3,072,540	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
October	10/17/2005	3,065,260	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
September	9/29/2005	3,060,640	Replaced existing 2000 lb carbon vessel with newer 2000 lb vessel, also replaced 55 gallon polishing vessel					
	9/12/2005	3,055,676	<0.5 <0.5	<50 <50	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
August	8/8/2005	3,042,586	<0.5 0.51	<200 <200	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
July	7/7/2005	3,026,010	<0.5 <0.5	<200 <200	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
June	6/9/2005	3,000,386	<0.5 0.61	<200 <200	<0.5 <0.5	<2.0 <2.0	<0.5 <0.5	<1.0 <1.0
May	5/9/2005	2,971,430	<0.5 <0.5	<200 <200	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<1.0 <1.0
	5/4/2005	2,964,270	Carb	•			d 55 gallon po ding of 2,189,	 blishing vessel 270 I
April	4/4/2005	2,904,500	<0.5 <0.5	<200 <200	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<1.0 <1.0

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	P #1 1 and	GAC-1 Sar	mples	
Month	Date	Totalizer Reading (gallons)	MtBE ²	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Total Xylenes (ug/L)	
				2005			<u> </u>	, , ,	
March	3/21/2005	2,874,170	<0.5	<200	<0.5	<0.5	<0.5	<1.0	
			<0.5	<200	<0.5	<0.5	<0.5	<1.0	
February	2/14/2005	2,828,000			55 Gallon	Drum Chan	ged Out	<u> </u>	
	2/7/2005 2,819,000	<5.0	<50	<5.0	<5.0	<5.0	<5.0		
			<5.0	<50	<5.0	<5.0	<5.0	<5.0	
January	1/19/2005	2,775,000	Carbo	on Change-	out of 2000 I	b vessel and	d 55 gallon po	l Dishing vessel I	
	1/3/2005	2,730,480	3.6	<50	<0.5	<0.5	<0.5	<0.5	
			3.8	<50	<0.5	<0.5	<0.5	<0.5	
				2004					
December	12/6/2004	2,667,620	<0.5	<50	<0.5	<0.5	<0.5	<1.0	
			<0.5	<50	<0.5	<0.5	<0.5	<1.0	
November	11/8/2004	2,631,600	<0.5	<50	<0.5	<0.5	<0.5	<0.5	
			<0.5	<50	<0.5	<0.5	<0.5	<0.5	
October	10/13/2004	2,606,420	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
			<2.0	<50	<0.5	<0.5	<0.5	<0.5	
September	9/13/2004	2,594,390	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
August	8/25/2004	2,586,010							
	8/9/2004	2,581,250	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
July	7/13/2004	2,568,830	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
	7/21/2004	2,564,710			l 55 Gallon	l Drum Chan	ged Out		
June	6/14/2004	2,549,470	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
May	5/26/2004	2,530,000	Carbo	on Change-	out of 2000 I	b vessel and	d 55 gallon po	l olishing vessel	
-	5/10/2004	2,488,760				•	leeting With E		
	5/17/2004	2,518,910					and restarted	the system	
	5/5/2004	2,500,650	Carbon Cha	anged Out a	and 55 Gallo	n Drum Cha	nged Out		
	5/3/2004	2,497,350	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5	
April	4/15/2004	2,436,190	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	SP #1 ¹ and	GAC-1 Sar	nples
		Totalizer Reading	MtBE ²	TPH-g (ug/L)	Benzene	Toluene	Ethyl- benzene	Total Xylenes
Month	Date	(gallons)	(ug/L)		(ug/L)	(ug/L)	(ug/L)	(ug/L)
				2004				
March	3/17/2004	2,376,200	Carb	on Change-	out of 2000 I	b vessel an	d 55 gallon po	olishing vessel
February	2/24/2004	2,276,770	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
January	1/27/2004	2,165,220	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	1/13/2004	2,116,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			T	2003		T		
December	12/8/2003	2,092,330	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
Nevenber	44/47/2002	0.007.070	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
November	11/17/2003	2,087,670	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	11/3/2003	2,079,460	<5.0 < 5.0	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0
	11/3/2003	2,079,400	< 5.0 < 5.0	< 50 < 50	< 5.0	< 5.0	< 5.0	< 5.0
October	10/13/2003	2,073,060	5.3	< 50	< 5.0	< 5.0	< 5.0	< 5.0
October	10/13/2003	2,073,000	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	10/1/2003	2,072,610						olishing vessel
September	9/15/2003	2,056,910	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
September	9/13/2003	2,050,910	6	< 50 < 50	< 5.0	< 5.0	< 5.0	< 5.0
			U	< 50	< 5.0	< 5.0	< 5.0	₹ 3.0
	9/2/2003	2,040,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	0/2/2000	_,0 .0,0 .0	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
August	8/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
August	0/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			\\ 0.0	V 300	< 0.0	₹ 0.0	V 3.0	V 3.0
July	7/21/2003	1,995,240	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
ou.,	.,,	.,000,2.0	40	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	7/9/2003	1,990,260	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			36	< 50	< 5.0	< 5.0	< 5.0	< 5.0
June	6/18/2003	1,978,560	Carb	on Change-	out of 2000 I	b vessel and	d 55 gallon po	olishing vessel
0 3.1.10	5 5. = 5.5	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					g p	
	6/10/2003	1,972,780	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
		, ,	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
May	5/21/2003	1,951,830	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	5/1/2003	1,918,270	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
April	4/11/2003	1,882,440	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0

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Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent	Lab Results For PSP #1 ¹ and GAC-1 Samples						
Month	Date	Totalizer Reading (gallons)	MtBE ² (ug/L)	TPH-g (ug/L)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	
WIOTILIT	Date	(gallolis)	(ug/L)	2003	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
March	3/19/2003	1,846,490	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
IVIAICII	3/19/2003	1,040,490	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
February	2/25/2003	1,804,960						carbon drum	
j	2/19/2003	1,791,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
January	1/27/2003	1,733,500	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
	1/2/2003	1 675 600	. F.O	. 50	. 5.0	< 5.0	. F.O	< 5.0	
	1/2/2003	1,675,600	< 5.0 < 5.0	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	
			1 0.0	2002	70.0	7 0.0	7 0.0	V 0.0	
December	12/10/2002	1,672,870	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
2000	,,	.,0:=,0:0	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
November	11/22/2002	1,668,650	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0	
	11/13/2002	1,664,780	replaced gasket on top of 2000 lb GAC vessel, slight leak was detected						
	11/7/2002	1,663,880	Carb	on Change-c	out of 2000 I	h vessel an	d 55 gallon no	olishing vessel	
	11/1/2002	1,000,000	Carb	on onango c	Jul 01 2000 1	D 100001 am	a oo gallon pe	onorming vector	
October	10/16/02 ³	1,661,590	< 310	2,000 Y Z	< 310	< 310	< 310		
			< 0.5	50				< 310	
September	9/19/2002			< 50	< 0.5	< 0.5	< 0.5	< 310 < 0.5	
		1,653,600	< 5	< 50 < 50	< 0.5 < 5				
		1,653,600	< 5 < 5		1	< 0.5	< 0.5	< 0.5	
1			< 5	< 50 < 50	< 5 < 5	< 0.5 < 5 < 5	< 0.5 < 5 < 5	< 0.5 < 5 < 5	
August	8/23/2002	1,653,600 1,641,650	< 5	< 50 < 50 < 50	< 5 < 5 < 0.5	< 0.5 < 5 < 5	< 0.5 < 5 < 5 < 0.5	< 0.5 < 5 < 5 < 0.5	
August	8/23/2002		< 5	< 50 < 50	< 5 < 5	< 0.5 < 5 < 5	< 0.5 < 5 < 5	< 0.5 < 5 < 5	
_		1,641,650	< 5 1 < 0.5	< 50 < 50 < 50 < 50	< 5 < 5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 5 < 0.5 < 0.5	< 0.5 < 5 < 5 < 0.5 < 0.5	
August	8/23/2002		< 5	< 50 < 50 < 50	< 5 < 5 < 0.5	< 0.5 < 5 < 5	< 0.5 < 5 < 5 < 0.5	< 0.5 < 5 < 5 < 0.5	
July	7/23/2002	1,641,650 1,632,834	< 5 1 < 0.5 <5.0 < 5.0	< 50 < 50 < 50 < 50 < 50 < 50	< 5 < 5 < 0.5 < 0.5 < 5.0 < 5.0	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 5.0	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0	
_		1,641,650	< 5 1 < 0.5	< 50 < 50 < 50 < 50 < 50	< 5 < 5 < 0.5 < 0.5	< 0.5 < 5 < 5 < 0.5 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 5.0	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 5.0	
July	7/23/2002	1,641,650 1,632,834	< 5 1 < 0.5 <5.0 < 5.0 1.7	< 50 < 50 < 50 < 50 < 50 < 50 < 50	< 5 < 5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 5.0	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 5.0	
July	7/23/2002	1,641,650 1,632,834	< 5 1 < 0.5 <5.0 < 5.0 < 5.0 < 5.5 < 0.5	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50	< 5 < 5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	
July	7/23/2002 6/24/2002 5/30/2002	1,641,650 1,632,834 1,610,050 1,571,630	<5 1 <0.5 <5.0 <5.0 < 5.0 < 0.5 < 0.5	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50	< 5 < 5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	
July	7/23/2002 6/24/2002 5/30/2002 5/20/2002	1,641,650 1,632,834 1,610,050 1,571,630 1,548,000	<5 1 <0.5 <5.0 <5.0 < 5.0 < 0.5 < 0.5	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50	< 5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5 < 0.5	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < pressor, ins	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 stalled another	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	
July	7/23/2002 6/24/2002 5/30/2002 5/20/2002 5/8/2002	1,641,650 1,632,834 1,610,050 1,571,630 1,548,000 1,538,850	<5 1 <0.5 <5.0 <5.0 < 5.0 < 0.5 < 0.5	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 oved newly in	< 5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5 < 0.5 < 0.5 nstalled cominstalled	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 c 0.5 c 0.5 npressor, insinew compiler.	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 stalled another ressor	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	
July June May	7/23/2002 6/24/2002 5/30/2002 5/20/2002 5/8/2002 5/1/2002	1,641,650 1,632,834 1,610,050 1,571,630 1,548,000 1,538,850 1,529,650	< 5 1 < 0.5 <5.0 < 5.0 < 5.0 1.7 < 0.5 < 0.5 < needed	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 oved newly in	< 5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5 < 0.5 nstalled cominstalled new	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 pressor, instance compared to the co	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 constalled another ressor GAC Vessel	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 c compressor	
July	7/23/2002 6/24/2002 5/30/2002 5/20/2002 5/8/2002	1,641,650 1,632,834 1,610,050 1,571,630 1,548,000 1,538,850	<5 1 <0.5 <5.0 <5.0 < 5.0 < 0.5 < 0.5	< 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 < 50 oved newly in	< 5 < 0.5 < 0.5 < 0.5 < 5.0 < 5.0 < 0.5 < 0.5 < 0.5 < 0.5 nstalled cominstalled	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 c 0.5 c 0.5 npressor, insurance comparison.	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 stalled another ressor	< 0.5 < 5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	SP #1 ¹ and	GAC-1 Sar	mples	
Month	Date	Totalizer Reading (gallons)	MtBE ²	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Total Xylenes (ug/L)	
III O I I I I	24.0	(3)	(4.9/2)	2002	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
March	3/25/2002 3/18/2002 3/14/2002	1,478,420 NR 1,478,330	replaced pi	carbon chan	ge-out on tr pressor g up pressur	·	tem		
February	2/27/2002	1,449,830	< 0.5	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
January	1/22/2002	1,381,370	< 2.0 < 2.0	< 50 < 50	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
				2001					
December	12/12/2001	1,311,340	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
November	11/2/2001	1,272,660	ND 0.6	ND ND	ND ND	ND ND	ND ND	ND ND	
September	9/28/2001	NA	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
August	8/22/2001	1,243,100	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
July	7/26/2001	1,227,270	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
	7/11/2001	1,226,730	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
June	6/29/2001	1,224,600	NA ND	NA ND	NA ND	NA ND	NA ND	NA ND	
	6/26/2001	NR							
	6/16/2001	1,216,580	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	6/7/2001	1,216,580	NA NA				ired compress NA NA		
Мау	5/30/2001	1,205,198	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	5/23/2001	1,194,390	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	5/17/2001	1,182,360	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	
	5/10/2001	1,166,850	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	5/5/2001	1,151,600	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
April	4/28/2001	1,135,690	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	4/21/2001	1,113,570	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
	4/11/2001	1,082,700	NA ND	ND ND	ND ND	ND ND	ND ND	ND ND	
	4/6/2001	1,065,540	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	

Table 1

Total Volume of Water Treated, Historical Operational Data,
and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples
3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	SP #1 ¹ and	GAC-1 Sar	nples		
	D	Totalizer Reading	MtBE ²	TPH-g (ug/L)	Benzene	Toluene	Ethyl- benzene	Total Xylenes		
Month	Date	(gallons)	(ug/L)	2004	(ug/L)	(ug/L)	(ug/L)	(ug/L)		
				2001				T		
March	3/29/2001	1,036,330	NA	NA	NA	NA	NA	NA		
			NA	NA	NA	NA	NA nt a d	NA		
	3/21/2001	1,036,070	NA	NA	NA System	n was re-sta NA	ntea NA	NA NA		
	3/21/2001	1,036,070	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA		
			INA	IVA	· ·	ced on com		INA		
	3/17/2001	1,035,100	NA	NA	NA NA	NA	NA	NA		
	0/11/2001	1,000,100	NA	NA	NA	NA	NA	NA		
			107		101	100	107	101		
	3/13/2001	1,032,500	ND	ND	ND	ND	ND	ND		
		, ,	NA	NA	NA	NA	NA	NA		
	3/2/2001	996,520	NA	NA	NA	NA	NA	NA		
			NA	NA	NA	NA	NA	NA		
	3/1/2001	NR		syst	em re-starte	d after carb	on change-ou	t		
February	2/28/2001	NR	Carbon Cha	ange-out wa	as performed	on GAC-1.	washed alga	e from		
ebluary			holding tank, cleaned 2000 lb GAC, re-started system							
	2/10/2001	975,490			maintenance					
January	1/29/2001	957,880	ND	ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND	ND		
				2000						
December	12/5/2000	883,000	ND	ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND	ND		
November	11/24/2000	NR	ND	ND	ND	ND	ND	ND		
	4.4.4.0000	0.40.000	ND	ND	ND	ND	ND	ND		
	11/1/2000	842,000	ND ND	ND	ND ND	ND	ND ND	ND ND		
October	10/1/2000	809,000	ND	ND	ND	ND ND	ND	ND ND		
October	10/1/2000	809,000	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND		
			<u> </u>							
August	8/27/2000	781,000	ND	ND	ND	ND	ND	ND ND		
	8/24/2000	778,000		totaliz	er changed	at meter rea	ading of 775,0	00		
July	7/26/2000	726,000	ND	ND	ND	ND	ND	ND		
	7/19/2000	718,000	ND	ND	ND	ND	ND	ND		
	7/13/2000	712,000	ND	ND	ND	ND	ND	ND		
	7/7/2000	706,000	ND	ND	ND	ND	ND	ND		

Table 1

Total Volume of Water Treated, Historical Operational Data, and Laboratory Analytical Results for PSP #1 (Effluent) and GAC-1 Samples 3609 International Boulevard, Oakland, California

		Effluent		Lab Res	ults For PS	P #1 1 and	GAC-1 San	nples		
		Totalizer Reading	MtBE ²	TPH-g (ug/L)	Benzene	Toluene	Ethyl- benzene	Total Xylenes		
Month	Date	(gallons)	(ug/L)	2222	(ug/L)	(ug/L)	(ug/L)	(ug/L)		
				2000	1					
June	6/29/2000	700,000	ND	ND	ND	ND	ND	ND		
	6/21/2000	682,220	ND	ND	ND	ND	ND	ND		
	6/16/2000	669,720	ND	ND	ND	ND	ND	ND		
	6/10/2000	651,200	ND	ND	ND	ND	ND	ND		
May	5/31/2000	629,000	ND	ND	ND	ND	ND	ND		
	5/23/2000	603,700	ND	ND	ND	ND	ND	ND		
	5/18/2000	570,000	ND	ND	ND	ND	ND	ND		
	5/10/2000	530,400	ND	ND	ND	ND	ND	ND		
April	4/30/2000	488,300	ND	ND	ND	ND	ND	ND		
	4/18/2000	•	ND	ND	ND	ND	ND	0.51		
		ssor stopped, s	ystem shut c	lown until Ap		1	•	1		
	4/10/2000	440,200	ND	ND	ND	ND	ND	ND		
	4/4/2000	390,100	ND	ND	ND	ND	ND	ND		
	4/2/2000	NR	performed a carbon change-out on GAC-1							
March	3/31/2000	NR	replaced GAC-2 with a special GAC designed for removal of MtBE							
	3/24/2000	388,000	ND	ND	ND	ND	ND	ND		
	3/17/2000	357,100	ND	ND	ND	ND	ND	ND		
	3/10/2000	329,000	ND	ND	ND	ND	ND	ND		
	3/3/2000	300,000		ansfer overh	eated, repai	ired pump, r	estarted syste	em 3/6/00		
February	2/25/2000	274,000	ND	ND	ND	ND	ND	ND		
	2/18/2000	233,000	ND	ND	ND	ND	ND	ND		
	2/11/2000	190,000	ND	ND	ND	ND	ND	ND		
	2/4/2000	160,800	ND	ND	ND	ND	ND	ND		
January	1/28/2000	130,600	ND	ND	ND	ND	ND	ND		
	1/21/2000	103,435	ND	ND	ND	ND	ND	ND		
	1/17/2000	NR			ith 2,000 lb (
			second pol	ishing GAC	was replace	d with 55 ga	Illon GAC unit			
	1/14/2000	83,500	185	ND	ND	ND	ND	ND		
				1999						
December	12/23/1999	51,680	1486	NA	ND	ND	ND	ND		
			ND	NA	ND	ND	ND	ND		
	12/16/1999	30,450	963	NA	ND	ND	ND	ND		
			ND	NA	ND	ND	ND	ND		
	12/9/1999	9,000	230	ND	ND	ND	ND	ND		
	•	Pu	mping bega	n on Decem	ber 6, 1999	•	· 	· 		
Notes:				· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·				

Notes:

- 1 The designator "Effluent" used on sampling and laboratory documents refers to samples collected from PSP #1.
- MTBE was analyzed using EPA Method 8260B, prior to the September 2003. After September 2003, MtBE was only analyzed by EPA Method 8021B.
- Lab data as shown for Oct. 2002 is erroneous data. During lab analysis a high detection of 2-Butanone was detected in only the effluent sample. The influent sample for 2-Butanone was at only 20 ppb. This caused a high dilution factor causing a high non-detectable value. The high TPH-g value was misrepresentative due to the Y and Z flags.
- ND, <: Not Detected above laboratory reporting limits
- NA: Not Analyzed
- NR: Not recorded. Totalizer reading not recorded.
- Y: Sample exhibits fuel pattern which does not resemble standard
- Z: Sample exhibits unknown single peak or peaks

APPENDIX A

Laboratory Results and Chain of Custody Forms for the Treatment System



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

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

Laboratory Job Number 214660 ANALYTICAL REPORT

SOMA Environmental Engineering Inc. Project : 2333

6620 Owens Dr.

Pleasanton, CA 94588

Location: 3609 International Blvd

Level : II

Sample ID	<u>Lab ID</u>
PSP-1	214660-001
GAC-1	214660-002
INFLUENT	214660-003

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.

Date: <u>09/11/2009</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 214660

Client: SOMA Environmental Engineering Inc.

Project: 2333

Location: 3609 International Blvd

Request Date: 09/04/09 Samples Received: 09/04/09

This data package contains sample and QC results for three water samples, requested for the above referenced project on 09/04/09. The samples were received cold and intact.

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

No analytical problems were encountered.

Curtis & Tompkins, Ltd. Analytical Laboratory Since 1878 2323 Fifth Street

C&T LOGIN# 214660

Analysis

	Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax				_	esse Aced	<u>lil</u>	(p		·····										
Project	t No: 2333		Report To: Joyce Bobek						,						i		.			
Project Name: 3609 International Blvd. Oakland CA			Compa	any :	<u>. </u>	SOMA Environr	men	ıtal				8260B	ļ							
Turnar	ound Time: Standard	****	Teleph	one	<u>:</u>	925-734-6400								'			,			
			Fax:			925-734-6401						, BTEX, MtBE		'			,			
	1			Mat	trix		Pr	eser	rvati	ive		Ä	l '				.			
Lab No.	Sample ID.	Sampling Date Tir	me	Soil	Waste	# of Containers	HCL	H2SO ₄	HN03	SE		TPHg, B								
	PSP-1	9/4/9 20836		*		4 VOAs	*			*		*								
	GAC-1	00945		*	+	4 VOAs	*	igspace	\sqcup	*		*	<u> </u>	ļ	-	 	\vdash			
-) -	INFLUENT	\$ (a) 0900		H	+-	4 VOAs	\vdash	H	H	H	ŀ		<u> </u>	 	 	+-+	\longrightarrow	\rightarrow	\dashv	
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		100						ı	DAT	E/TII	ME							ſ	DATE	E/TIME



Gasoline by GC/MS							
Lab #:	214660	Location:	3609 International Blvd				
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B				
Project#:	2333	Analysis:	EPA 8260B				
Matrix:	Water	Sampled:	09/04/09				
Units:	ug/L	Received:	09/04/09				
Batch#:	154748	Analyzed:	09/10/09				

Lab ID: 214660-001 Diln Fac: 1.000 Field ID: PSP-1 Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
m,p-Xylenes o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	112	84-120
1,2-Dichloroethane-d4	124	75-137
Toluene-d8	101	90-111
Bromofluorobenzene	114	83-123

Field ID: Lab ID: 214660-002 Diln Fac: 1.000 GAC-1 SAMPLE Type:

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	111	84-120	
1,2-Dichloroethane-d4	122	75-137	
Toluene-d8	100	90-111	
Bromofluorobenzene	112	83-123	

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

2.1



Gasoline by GC/MS						
Lab #:	214660	Location:	3609 International Blvd			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	2333	Analysis:	EPA 8260B			
Matrix:	Water	Sampled:	09/04/09			
Units:	ug/L	Received:	09/04/09			
Batch#:	154748	Analyzed:	09/10/09			

Lab ID: 214660-003 Diln Fac: 10.00 Field ID: INFLUENT

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	790	500	
MTBE	6.8	5.0	
Benzene	45	5.0	
Toluene	9.9	5.0	
Ethylbenzene	23	5.0	
m,p-Xylenes	42	5.0	
o-Xylene	10	5.0	

Surrogate	%REC	Limits
Dibromofluoromethane	112	84-120
1,2-Dichloroethane-d4	123	75-137
Toluene-d8	100	90-111
Bromofluorobenzene	110	83-123

Diln Fac: 1.000

ואף: Lab ID: BLANK QC511413

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes o-Xylene	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	106	84-120	
1,2-Dichloroethane-d4	120	75-137	
Toluene-d8	101	90-111	
Bromofluorobenzene	107	83-123	

ND= Not Detected

RL= Reporting Limit

Page 2 of 2

2.1



Gasoline by GC/MS							
Lab #:	214660	Location:	3609 International Blvd				
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B				
Project#:	2333	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	154748				
Units:	ug/L	Analyzed:	09/10/09				
Diln Fac:	1.000						

Type: BS Lab ID: QC511414

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	22.45	112	70-117
Benzene	20.00	21.12	106	83-119
Toluene	20.00	20.85	104	84-120
Ethylbenzene	20.00	21.06	105	87-122
m,p-Xylenes	40.00	43.20	108	84-123
o-Xylene	20.00	21.34	107	84-118

Surrogate	%REC	Limits
Dibromofluoromethane	109	84-120
1,2-Dichloroethane-d4	113	75–137
Toluene-d8	100	90-111
Bromofluorobenzene	109	83-123

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	22.63	113	70-117	1	10
Benzene	20.00	21.66	108	83-119	3	12
Toluene	20.00	21.66	108	84-120	4	12
Ethylbenzene	20.00	22.04	110	87-122	5	12
m,p-Xylenes	40.00	45.48	114	84-123	5	12
o-Xylene	20.00	21.73	109	84-118	2	11

Surrogate	%REC	Limits	
Dibromofluoromethane	107	84-120	
1,2-Dichloroethane-d4	112	75-137	
Toluene-d8	102	90-111	
Bromofluorobenzene	106	83-123	



	Gasoline	by GC/MS	
Lab #:	214660	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	154748
Units:	ug/L	Analyzed:	09/10/09
Diln Fac:	1.000		

Type: BS Lab ID: QC511416

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	964.6	96	86-111

Surrogate	%REC	Limits
Dibromofluoromethane 1	_07	84-120
1,2-Dichloroethane-d4 1	17	75-137
Toluene-d8 1	00	90-111
Bromofluorobenzene 1	10	83-123

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	938.3	94	86-111	3	13

Surrogate	%REC	Limits
Dibromofluoromethane	107	84-120
1,2-Dichloroethane-d4	117	75-137
Toluene-d8	100	90-111
Bromofluorobenzene	109	83-123

Page 2

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091009.b\HIA21TVH.D

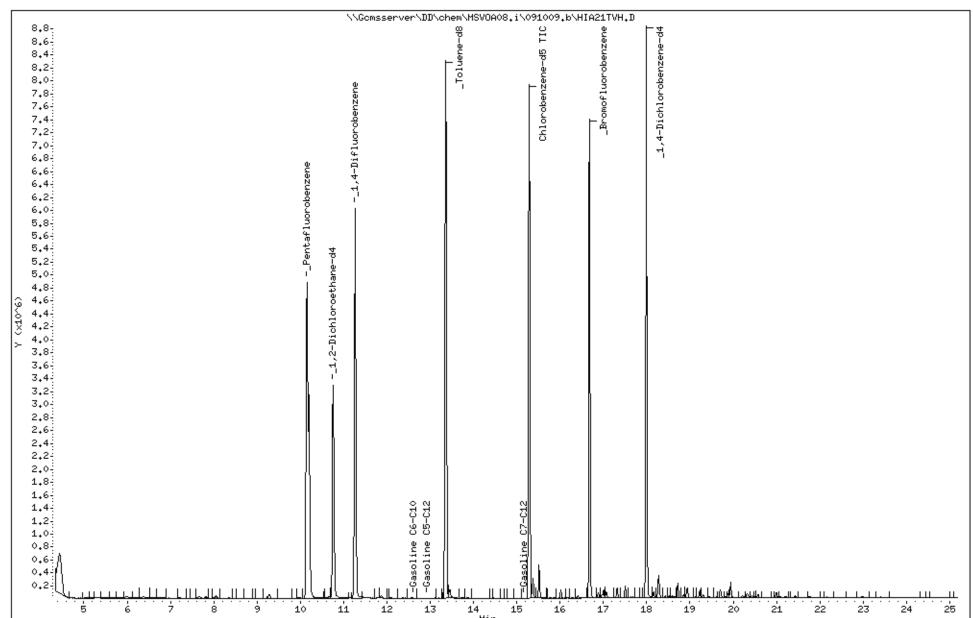
Date : 10-SEP-2009 22:19 Client ID: DYNA P&T

Instrument: MSVOA08.i

Sample Info: S,214660-003

Operator: voc

Column phase: Column diameter: 2,00



Page 2

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\091009.b\HIA03TVH.D

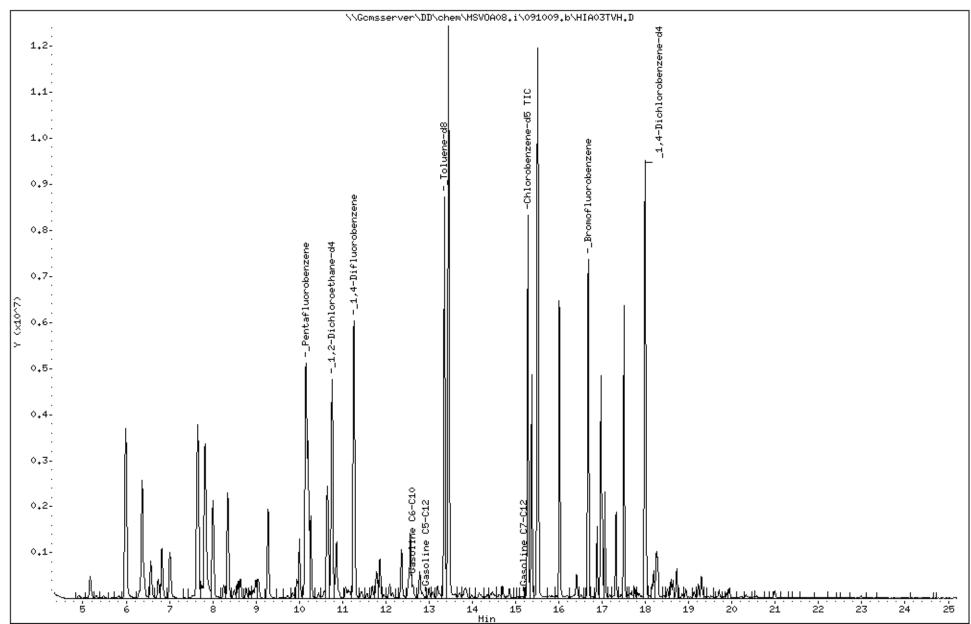
Date : 10-SEP-2009 11:26 Client ID: DYNA P&T

Sample Info: CCV,S12207,0.018/100

Instrument: MSVOA08.i

Operator: voc

Column phase: Column diameter: 2.00





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

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

Laboratory Job Number 217256 ANALYTICAL REPORT

SOMA Environmental Engineering Inc. Project : 2333

6620 Owens Dr.

Pleasanton, CA 94588

Location: 3609 International Blvd

Level : II

Sample ID <u>шар I.</u> 217256-001 <u>Lab ID</u> PSP-1 217256-002 GAC-1 INFLUENT 217256-003

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: Manager

Project Manager

Date: <u>12/22/2009</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 217256

Client: SOMA Environmental Engineering Inc.

Project: 2333

Location: 3609 International Blvd

Request Date: 12/15/09
Samples Received: 12/15/09

This data package contains sample and QC results for three water samples, requested for the above referenced project on 12/15/09. The samples were received cold and intact.

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

High surrogate recovery was observed for 1,2-dichloroethane-d4 in the method blank for batch 158473; no target analytes were detected in the sample. INFLUENT (lab # 217256-003) had pH greater than 2. No other analytical problems were encountered.

Analysis

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

Project No: 2333

C&T LOGIN# 217256

Sampler: Masoud Sepehr

Report To:

Joyce Bobek

Projec	t Name: 3609 International Blv	d. Oakland CA	Comp	any :		SOMA Environr	nen	tal			8260B								
Turnar	ound Time: Standard		Telepl	one	:	925-734-6400					4								
			Fax:			925-734-6401					RTEX MARE								i
				Ma	trix		Pro	eser	vati	ve	\(\(\)								
Lab No.	Sample ID.	Sampling Date Til	me	Soil	Waste	# of Containers	HCL	H2SO4	HN03	ICE	TPHA B'	- I							
	PSP-1	12/14/09 120	0	,		4 VOAs	*			*	*								
	GAC-1	12/14/09 122		\vdash	丄	4 VOAs	*			*	*	ļ							
_	INFLUENT	12/14/09 124	10	'	1	4 VOAs	*			*	*		ļ						
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							12/	-	9 /			1					D	ATE/	TIME

COOLER RECEIPT CHECKLIST



Login# 2	17256	_ Date Received	12-15	Number of coole	rs <u> </u>
Client Son		Pr	oject <u>3609</u>	Internationa	e Blue.
Date Opened Date Logged i	<u>р-с</u> Ву (print) Elics print)	Tsudik (sign)	Olive Tsadi	
1. Did cooler of Shippi		ping slip (airbill, e		YE	S 100
How n	nany	Name	rcle) on cooler	on samples Date	
2B. Were custod 4. Were custod 5. Is the projection	ody seals intact u dy papers dry and dy papers filled o act identifiable fro	upon arrival? I intact when rece out properly (ink, s	ived?signed, etc)?s? (If so fill out to		NO
☐ Clot		JFoam blocks] Cardboard :		☐ None ☐ Paper to	owels
Type o	of ice used: 😿 V	Vet □ Blue/G	el None	Temp(°C)	
	•	n ice & cold with			
`				g process had begu	n
8. Were Meth	od 5035 samplin	g containers present they transferred t	ent?		YES NO
9. Did all bott	les arrive unbrok	en/unopened?			YES NO
		riate containers fo			YES NO
		in good condition	•		YES NO
	•	with custody paper ample sent for test	•		YES NO
	mples appropriat	•	is requested.	VES	NO N/A
		in VOA samples?	?	YES	NO N/A
		ncerning this sam			YES NO
If YES	s, Who was called	1?	By	Date:	
COMMENTS					
			· · · · · · · · · · · · · · · · · · ·		
-					
					

SOP Volume:

Client Services

Section:

1.1.2

Page: 1 of 1

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Rev. 6 Number 1 of 3



	Gasoline	by GC/MS	
	217256 SOMA Environmental Engineering Inc.	Location: Prep:	3609 International Blvd EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	12/14/09
Units:	ug/L	Received:	12/15/09
Diln Fac:	1.000		

Field ID: PSP-1 Type: SAMPLE Lab ID: 217256-001 Batch#: 158454 Analyzed: 12/20/09

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	99	81-124	
1,2-Dichloroethane-d4	126	73-140	
Toluene-d8	103	88-113	
Bromofluorobenzene	106	80-127	

Field ID: Type: GAC-1 SAMPLE 217256-002 Batch#: 158454 Analyzed: 12/20/09 Type: Lab ID:

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

-		^===	
	Surrogate	%REC	Limits
	Dibromofluoromethane	101	81-124
	1,2-Dichloroethane-d4	128	73-140
	Toluene-d8	104	88-113
	Bromofluorobenzene	109	80-127

2.0

^{*=} Value outside of QC limits; see narrative

NA= Not Analyzed ND= Not Detected

RL= Reporting Limit

Page 1 of 4



	Gasoline	by GC/MS	
Lab #: Client: Project#:	217256 SOMA Environmental Engineering Inc. 2333	Location: Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8260B
Matrix: Units: Diln Fac:	Water ug/L 1.000	Sampled: Received:	12/14/09 12/15/09

Field ID: Batch#: 158473 Analyzed: 12/21/09 INFLUENT SAMPLE 217256-003 Type: Lab ID:

Analyte	Result	RL	
Gasoline C7-C12	790	50	
MTBE	87	0.50	
Benzene	1.4	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	4.8	0.50	
o-Xylene	17	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	126	73-140
Toluene-d8	104	88-113
Bromofluorobenzene	103	80-127

BLANK QC526448 Batch#: 158454 Analyzed: 12/20/09 Type: Lab ID:

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	98	81-124	
1,2-Dichloroethane-d4	126	73-140	
Toluene-d8	102	88-113	
Bromofluorobenzene	107	80-127	

2.0

 $[\]ensuremath{^{*=}}$ Value outside of QC limits; see narrative NA= Not Analyzed ND= Not Detected

RL= Reporting Limit
Page 2 of 4



	Gasoline	by GC/MS	
Lab #: Client: Project#:	217256 SOMA Environmental Engineering Inc. 2333	Location: Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8260B
Matrix: Units: Diln Fac:	Water ug/L 1.000	Sampled: Received:	12/14/09 12/15/09

Type: Lab ID: BLANK QC526483 Batch#: 158454 Analyzed: 12/20/09

Analyte	Result	RL	
Gasoline C7-C12	NA		
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	102	81-124
1,2-Dichloroethane-d4	131	73-140
Toluene-d8	104	88-113
Bromofluorobenzene	108	80-127

Type: BLANK Lab ID: QC526528 Batch#: 158473 Analyzed: 12/21/09

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	127	73-140
Toluene-d8	104	88-113
Bromofluorobenzene	108	80-127

^{*=} Value outside of QC limits; see narrative
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit
Page 3 of 4



	Gasoline	by GC/MS	
Lab #: Client: Project#:	217256 SOMA Environmental Engineering Inc. 2333	Location: Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8260B
Matrix: Units: Diln Fac:	Water ug/L 1.000	Sampled: Received:	12/14/09 12/15/09

Type: BLANK Lab ID: QC526529 Batch#: 158473 Analyzed: 12/21/09

Analyte	Result	RL	
Gasoline C7-C12	NA		
MTBE	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	106	81-124
1,2-Dichloroethane-d4	142 *	73-140
Toluene-d8	107	88-113
Bromofluorobenzene	113	80-127

^{*=} Value outside of QC limits; see narrative
NA= Not Analyzed
ND= Not Detected
RL= Reporting Limit
Page 4 of 4



	Gasoline by GC/MS							
Lab #:	217256	Location:	3609 International Blvd					
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B					
Project#:	2333	Analysis:	EPA 8260B					
Matrix:	Water	Batch#:	158454					
Units:	ug/L	Analyzed:	12/20/09					
Diln Fac:	1.000							

Type: BS Lab ID: QC526449

Analyte	Spiked	Result	%REC	Limits
MTBE	22.50	20.22	90	61-123
Benzene	22.50	23.49	104	81-122
Toluene	22.50	21.94	98	82-122
Ethylbenzene	22.50	23.67	105	86-125
m,p-Xylenes	45.00	47.80	106	83-127
o-Xylene	22.50	22.07	98	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	121	73-140
Toluene-d8	102	88-113
Bromofluorobenzene	101	80-127

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	22.50	21.54	96	61-123	6	11
Benzene	22.50	23.58	105	81-122	0	12
Toluene	22.50	22.46	100	82-122	2	12
Ethylbenzene	22.50	24.03	107	86-125	1	12
m,p-Xylenes	45.00	47.93	107	83-127	0	13
o-Xylene	22.50	22.25	99	81-122	1	12

Surrogate	%REC	Limits
Dibromofluoromethane	99	81-124
1,2-Dichloroethane-d4	120	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	102	80-127



	Gasoline	by GC/MS	
Lab #:	217256	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	158454
Units:	ug/L	Analyzed:	12/20/09
Diln Fac:	1.000		

Type: BS Lab ID: QC526451

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	850.0	822.2	97	74-124

Surrogate	%REC	Limits
Dibromofluoromethane	98	81-124
1,2-Dichloroethane-d4	124	73-140
Toluene-d8	102	88-113
Bromofluorobenzene	104	80-127

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	850.0	810.0	95	74-124	1	13

Surrogate	%REC	Limits
Dibromofluoromethane	96	81-124
1,2-Dichloroethane-d4	118	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	107	80-127



Gasoline by GC/MS							
Lab #:	217256	Location:	3609 International Blvd				
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B				
Project#:	2333	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	158473				
Units:	ug/L	Analyzed:	12/21/09				
Diln Fac:	1.000						

Type: BS Lab ID: QC526530

Analyte	Spiked	Result	%REC	Limits
MTBE	21.25	19.16	90	61-123
Benzene	21.25	24.60	116	81-122
Toluene	21.25	21.78	102	82-122
Ethylbenzene	21.25	23.84	112	86-125
m,p-Xylenes	42.50	45.75	108	83-127
o-Xylene	21.25	21.06	99	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	104	81-124
1,2-Dichloroethane-d4	132	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	102	80-127

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	21.25	21.11	99	61-123	10	11
Benzene	21.25	24.62	116	81-122	0	12
Toluene	21.25	22.47	106	82-122	3	12
Ethylbenzene	21.25	24.81	117	86-125	4	12
m,p-Xylenes	42.50	47.92	113	83-127	5	13
o-Xylene	21.25	22.53	106	81-122	7	12

	^===	
Surrogate	%REC	Limits
Dibromofluoromethane	100	81-124
1,2-Dichloroethane-d4	125	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	102	80-127



Gasoline by GC/MS							
Lab #:	217256	Location:	3609 International Blvd				
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B				
Project#:	2333	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	158473				
Units:	ug/L	Analyzed:	12/21/09				
Diln Fac:	1.000						

Type: BS Lab ID: QC526532

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	900.0	843.4	94	74-124

Surrogate %	%REC	Limits
Dibromofluoromethane 10	00	81-124
1,2-Dichloroethane-d4 12	25	73-140
Toluene-d8	02	88-113
Bromofluorobenzene 10	06	80-127

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	900.0	830.2	92	74-124	2	13

Surrogate	%REC	Limits
Dibromofluoromethane	98	81-124
1,2-Dichloroethane-d4	121	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	107	80-127

Data File: \\Gcmsserver\DD\chem\MSVOA08.i\122109.b\HLL10.D

Date : 21-DEC-2009 15:26 Client ID: DYNA P&T Sample Info: S,217256-003

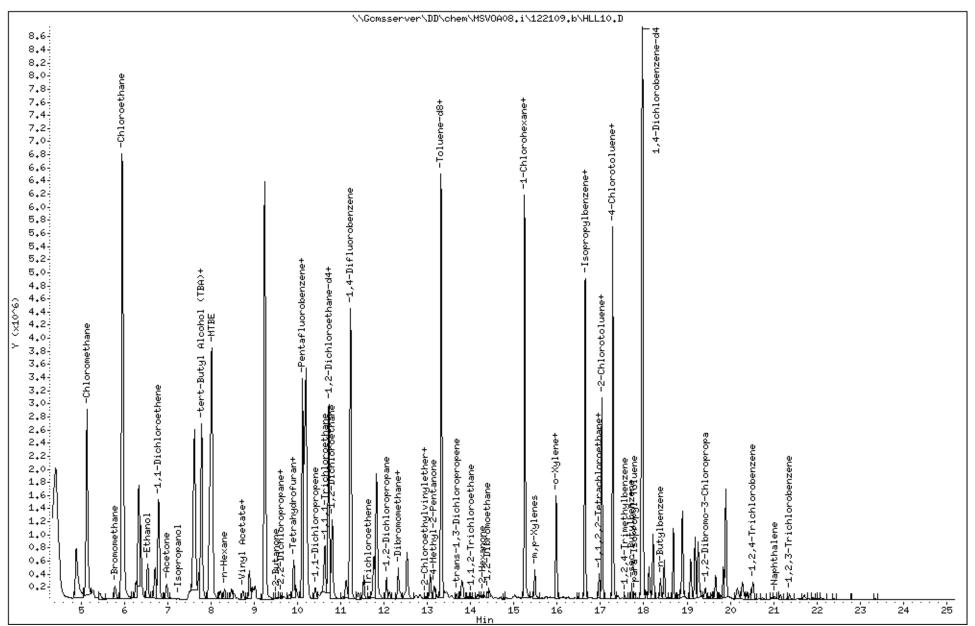
Purge Volume: 5.0

Column phase: RTX 624

Instrument: MSVOA08.i

Operator: voc

Column diameter: 0.25



Page 2

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Date : 20-DEC-2009 12:50 Client ID: DYNA P&T

Sample Info: CCV/BS,QC526451,158454,S13447,.0085/100

Operator: voc

Instrument: MSVOA08.i

Column diameter: 2.00

