ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS (SUMMARY SHEETS)

This attachment contains the groundwater monitoring well results from the laboratory analytical reports prepared by Alpha Analytical Inc. of Sparks, Nevada and Columbia Analytical Services (CAS) of Simi Valley, California. Complete laboratory analytical reports are available upon request.



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

Date: 01-May-09

David Conner

Battelle Memorial Institute

3990 Old Town Ave

San Diego, CA 92110 (818) 393-2808 Suite C-205

CASE NARRATIVE

Project:

G005862/JPL Groundwater Monitoring

Work Order:

BMI09042240

Cooler Temp:

4°C

NOIGE: DIVILOY042240	•	ooler remp.	
Alpha's Sample ID	Client's Sample ID	Matrix	
09042240-01A	MW-14-5	Aqueous	
09042240-02A	MW-14-4	Aqueous	
09042240-03A	MW-14-3	Aqueous	
09042240-04A	MW-14-2	Aqueous	
09042240-05A	MW-14-1	Aqueous	
09042240-06A	EB-01-4/21/09	Aqueous	
09042240-07A	TB-01-4/21/09	Aqueous	

Manually Integrated Analytes

Manually Integrated Analytes				
Alpha's Sample ID	Test Reference	Analyte		
09042240-02A	EPA Method 314.0	Perchlorate		
09042240-03A	EPA Method 314.0	Perchlorate		
09042240-04A	EPA Method 314.0	Perchlorate		
09042240-05A	EPA Method 314.0	Perchlorate		

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Saulner

Walter Hirkor



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (619) 574-4827

Fax: (614) 458-6641

Date Received: 04/22/09

Job#: G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID: MW-14-5	Nitrite (NO2) - N	ND	0.25 mg/L	04/21/09 09:00	04/22/09 13:52
Lab ID: BMI09042240-01A	Nitrate (NO3) - N	ND	0.25 mg/L	04/21/09 09:00	04/22/09 13:52
Client ID: MW-14-4	Nitrite (NO2) - N	ND	0.25 mg/L	04/21/09 09:40	04/22/09 14:47
Lab ID: BMI09042240-02A	Nitrate (NO3) - N	13	0.25 mg/L	04/21/09 09:40	04/22/09 14:47
Client ID: MW-14-3	Nitrite (NO2) - N	ND	0.25 mg/L	04/21/09 10:15	04/22/09 15:06
Lab ID: BMI09042240-03A	Nitrate (NO3) - N	15 *	1.3 mg/L	04/21/09 10:15	04/23/09 17:01
Client ID: MW-14-2	Nitrite (NO2) - N	ND	0.25 mg/L	04/21/09 10:55	04/22/09 15:24
Lab ID: BMI09042240-04A	Nitrate (NO3) - N	14	1.3 mg/L	04/21/09 10:55	04/23/09 10:50
Client ID: MW-14-1	Nitrite (NO2) - N	ND	0.25 mg/L	04/21/09 11:40	04/22/09 15:43
Lab ID: BMI09042240-05A	Nitrate (NO3) - N	15	1.3 mg/L	04/21/09 11:40	04/23/09 11:09
Client ID : EB-01-4/21/09	Nitrite (NO2) - N	ND	0.25 mg/L	04/21/09 11:20	04/22/09 16:01
Lab ID: BMI09042240-06A	Nitrate (NO3) - N	ND	0.25 mg/L	04/21/09 11:20	04/22/09 16:01

^{*}Note: Sample was originally analyzed within the 48 hour holding time for non-preserved samples, due to the high concentration of target analyte sample was re-run outside of hold time.

ND = Not Detected

Koger Scholl Kandy Saulun Walter Hirchner

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hirchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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5/5/09 Papart Data



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

Attn:

David Conner

Phone:

(619) 574-4827

Fax:

(614) 458-6641

Date Received: 04/22/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC

EPA Method 300.0 / 9056

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-14-5					
Lab ID:	BMI09042240-01A	Chloride	9.3	0.50 mg/L	04/21/09	04/22/09
		Sulfate (SO4)	17	0.50 mg/L	04/21/09	04/22/09
Client ID:	MW-14-4					
Lab ID:	BMI09042240-02A	Chloride	48	2.5 mg/L	04/21/09	04/23/09
		Sulfate (SO4)	49	0.50 mg/L	04/21/09	04/22/09
Client ID:	MW-14-3					
Lab ID:	BMI09042240-03A	Chloride	100	2.5 mg/L	04/21/09	04/23/09
		Sulfate (SO4)	160	2.5 mg/L	04/21/09	04/23/09
Client ID:	MW-14-2					
Lab ID :	BMI09042240-04A	Chloride	110	2.5 mg/L	04/21/09	04/23/09
		Sulfate (SO4)	180	2.5 mg/L	04/21/09	04/23/09
Client ID:	MW-14-1					
Lab ID:	BMI09042240-05A	Chloride	130	2.5 mg/L	04/21/09	04/23/09
		Sulfate (SO4)	190	2.5 mg/L	04/21/09	04/23/09
Client ID:	EB-01-4/21/09					
Lab ID:	BMI09042240-06A	Chloride	ND	0.50 mg/L	04/21/09	04/22/09
		Sulfate (SO4)	ND	0.50 mg/L	04/21/09	04/22/09

ND = Not Detected

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner

Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/22/09

Job#: G005862/JPL Groundwater Monitoring

Perchlorate by Ion Chromatography EPA Method 314.0

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-14-5 BMI09042240-01A	Perchlorate	ND	1.00 μg/L	04/21/09	04/23/09
Client ID : Lab ID :	MW-14-4 BMI09042240-02A	Perchlorate	2.94	1.00 μg/L	04/21/09	04/23/09
Client ID : Lab ID :	MW-14-3 BMI09042240-03A	Perchlorate	4.90	1.00 μg/L	04/21/09	04/23/09
Client ID : Lab ID :	MW-14-2 BMI09042240-04A	Perchlorate	3.32	1.00 μg/L	04/21/09	04/23/09
Client ID: Lab ID:	MW-14-1 BMI09042240-05A	Perchlorate	2.64	1.00 μg/L	04/21/09	04/23/09
Client ID : Lab ID :	EB-01-4/21/09 BMI09042240-06A	Perchlorate	ND	1.00 μg/L	04/21/09	04/23/09

ND = Not Detected

Roger Scholl Kandy Saulun

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (619) 574-4827

Fax: (614) 458-6641

Date Received: 04/22/09

Job#:

G005862/JPL Groundwater Monitoring

Alkalinity SM2320B

		Parameter	Conce	ntration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-14-5						
Lab ID:	BMI09042240-01A	Alkalinity, Bicarbonate (As CaCO3)	140		10 mg/L	04/21/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	13		10 mg/L	04/21/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	150		10 mg/L	04/21/09	04/27/09
Client ID:	MW-14-4						
Lab ID:	BMI09042240-02A	Alkalinity, Bicarbonate (As CaCO3)	170		10 mg/L	04/21/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND		10 mg/L	04/21/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	170		10 mg/L	04/21/09	04/27/09
Client ID:	MW-14-3						
Lab ID:	BMI09042240-03A	Alkalinity, Bicarbonate (As CaCO3)	240		10 mg/L	04/21/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND		10 mg/L	04/21/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	240		10 mg/L	04/21/09	04/27/09
Client ID:	MW-14-2						
Lab ID:	BMI09042240-04A	Alkalinity, Bicarbonate (As CaCO3)	270		10 mg/L	04/21/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND		10 mg/L	04/21/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	270		10 mg/L	04/21/09	04/27/09
Client ID:	MW-14-1						
Lab ID:	BMI09042240-05A	Alkalinity, Bicarbonate (As CaCO3)	190		10 mg/L	04/21/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND		10 mg/L	04/21/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	190		10 mg/L	04/21/09	04/27/09
Client ID:	EB-01-4/21/09						
Lab ID:	BMI09042240-06A	Alkalinity, Bicarbonate (As CaCO3)	ND	*	10 mg/L	04/21/09	04/28/09
		Alkalinity, Carbonate (As CaCO3)	ND	*	10 mg/L	04/21/09	04/28/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	ND	*	10 mg/L	04/21/09	04/28/09

*pH too low, 4.2, to analyze Alkalinity.

ND = Not Detected

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ANALYTICAL REPORT

Battelle Memorial Institute

3990 Old Town Ave San Diego, CA 92110 Attn:

David Conner

Phone: (818) 393-2808

Fax:

(614) 458-6641

Date Received: 04/22/09

Job#:

G005862/JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8

M P C	Sodium (Na) Magnesium (Mg) Potassium (K) Calcium (Ca) Chromium (Cr) ron (Fe)	32 13 2.0 19 ND	Limit 0.50 mg/L 0.50 mg/L 0.50 mg/L	04/21/09 04/21/09	Analyzed 04/27/09
Lab ID : BMI09042240-01A S M P C	Magnesium (Mg) Potassium (K) Calcium (Ca) Chromium (Cr) ron (Fe)	13 2.0 19	0.50 mg/L 0.50 mg/L	04/21/09	
M P C	Magnesium (Mg) Potassium (K) Calcium (Ca) Chromium (Cr) ron (Fe)	13 2.0 19	0.50 mg/L 0.50 mg/L	04/21/09	
P C	Potassium (K) Calcium (Ca) Chromium (Cr) ron (Fe)	2.0 19	0.50 mg/L 0.50 mg/L		04/07/00
C	Calcium (Ca) Chromium (Cr) ron (Fe)	19	0.50 mg/L		04/27/09
	Chromium (Cr) ron (Fe)		_	04/21/09	04/27/09
C	ron (Fe)	ND	0.50 mg/L	04/21/09	04/27/09
	` '		0.0050 mg/L	04/21/09	04/27/09
Iı	Amamia (An)	0.34	0.10 mg/L	04/21/09	04/27/09
A	Arsenic (As)	ND	0.0020 mg/L	04/21/09	04/27/09
L	ead (Pb)	ND	0.0050 mg/L	04/21/09	04/27/09
Client ID: MW-14-4					
Lab ID: BMI09042240-02A S	Sodium (Na)	31	0.50 mg/L	04/21/09	04/27/09
N	Magnesium (Mg)	23	0.50 mg/L	04/21/09	04/27/09
	Potassium (K)	2.3	0.50 mg/L	04/21/09	04/27/09
C	Calcium (Ca)	68	0.50 mg/L	04/21/09	04/27/09
C	Chromium (Cr)	ND	0.0050 mg/L	04/21/09	04/27/09
Iı	ron (Fe)	0.45	0.10 mg/L	04/21/09	04/27/09
A	Arsenic (As)	ND	0.0020 mg/L	04/21/09	04/27/09
L	Lead (Pb)	ND	0.0050 mg/L	04/21/09	04/27/09
Client ID: MW-14-3					
Lab ID: BMI09042240-03A S	Sodium (Na)	43	0.50 mg/L	04/21/09	04/27/09
	Magnesium (Mg)	50	0.50 mg/L	04/21/09	04/27/09
	Potassium (K)	3.1	0.50 mg/L	04/21/09	04/27/09
	Calcium (Ca)	130	0.50 mg/L	04/21/09	04/27/09
C	Chromium (Cr)	ND	0.0050 mg/L	04/21/09	04/27/09
	ron (Fe)	0.85	0.10 mg/L	04/21/09	04/27/09
Α	Arsenic (As)	ND	0.0020 mg/L	04/21/09	04/27/09
L	Lead (Pb)	ND	0.0050 mg/L	04/21/09	04/27/09
Client ID: MW-14-2					
Lab ID : BMI09042240-04A S	Sodium (Na)	38	0.50 mg/L	04/21/09	04/27/09
N	Magnesium (Mg)	53	0.50 mg/L	04/21/09	04/27/09
P	Potassium (K)	2.9	0.50 mg/L	04/21/09	04/27/09
C	Calcium (Ca)	150	0.50 mg/L	04/21/09	04/27/09
C	Chromium (Cr)	ND	0.0050 mg/L	04/21/09	04/27/09
	ron (Fe)	0.99	0.10 mg/L	04/21/09	04/27/09
А	Arsenic (As)	ND	0.0020 mg/L	04/21/09	04/27/09
L	Lead (Pb)	ND	0.0050 mg/L	04/21/09	04/27/09



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Client ID:	MW-14-1					
Lab ID:	BMI09042240-05A	Sodium (Na)	68	0.50 mg/L	04/21/09	04/27/09
		Magnesium (Mg)	43	0.50 mg/L	04/21/09	04/27/09
		Potassium (K)	2.9	0.50 mg/L	04/21/09	04/27/09
		Calcium (Ca)	130	0.50 mg/L	04/21/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/21/09	04/27/09
		Iron (Fe)	0.96	0.10 mg/L	04/21/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/21/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/21/09	04/27/09
Client ID:	EB-01-4/21/09					
Lab ID:	BMI09042240-06A	Sodium (Na)	ND	0.50 mg/L	04/21/09	04/27/09
		Magnesium (Mg)	ND	0.50 mg/L	04/21/09	04/27/09
		Potassium (K)	ND	0.50 mg/L	04/21/09	04/27/09
		Calcium (Ca)	ND	0.50 mg/L	04/21/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/21/09	04/27/09
		Iron (Fe)	ND	0.10 mg/L	04/21/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/21/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/21/09	04/27/09

ND = Not Detected

Roger Scholl Kandy Saulner Walter Hinchman, Quality Assurance Officer

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Date Received: 04/22/09

Job#: G005862/JPL Groundwater Monitoring

pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

		1900 11 11 11 11 11 11 11 11 11 11 11 11 1			
	Parameter	Concentration	Reporting	Date / Time	Date / Time
			Limit	Sampled	Analyzed
Client ID: MW-14-5	рН	8.5	1.7 pH Units	04/21/09 09:00	04/22/09 15:42
Lab ID: BMI09042240-01A	pH - Temperature	21	1.0 °C	04/21/09 09:00	04/22/09 15:42
Client ID: MW-14-4	рН	7.9	1.7 pH Units	04/21/09 09:40	04/22/09 15:45
Lab ID: BMI09042240-02A	pH - Temperature	20	1.0 °C	04/21/09 09:40	04/22/09 15:45
Client ID: MW-14-3	рН	7.6	1.7 pH Units	04/21/09 10:15	04/22/09 15:48
Lab ID: BMI09042240-03A	pH - Temperature	20	1.0 °C	04/21/09 10:15	04/22/09 15:48
Client ID: MW-14-2	рН	7.6	1.7 pH Units	04/21/09 10:55	04/22/09 15:52
Lab ID: BMI09042240-04A	pH - Temperature	20	1.0 °C	04/21/09 10:55	04/22/09 15:52
Client ID: MW-14-1	рН	6.6	1.7 pH Units	04/21/09 11:40	04/22/09 15:56
Lab ID: BMI09042240-05A	pH - Temperature	21	1.0 °C	04/21/09 11:40	04/22/09 15:56
Client ID : EB-01-4/21/09	рН	5.9	1.7 pH Units	04/21/09 11:20	04/22/09 16:00
Lab ID: BMI09042240-06A	pH - Temperature	21	1.0 °C	04/21/09 11:20	04/22/09 16:00

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

oger Scholl Kandy Saulner

Walter Hinchman Quality Assurance Office

ger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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5/5/09 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

David Conner Attn: Phone: (619) 574-4827 (614) 458-6641 Fax:

Date Received: 04/22/09

Job#:

G005862/JPL Groundwater Monitoring

Total Dissolved Solids (TDS)

SM2540C

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-14-5 BMI09042240-01A	Solids, Total Dissolved (TDS)	170	10 mg/L	04/21/09	04/28/09
Client ID : Lab ID :	MW-14-4 BMI09042240-02A	Solids, Total Dissolved (TDS)	360	10 mg/L	04/21/09	04/27/09
Client ID: Lab ID:	MW-14-3 BMI09042240-03A	Solids, Total Dissolved (TDS)	700	10 mg/L	04/21/09	04/27/09
Client ID: Lab ID:	MW-14-2 BMI09042240-04A	Solids, Total Dissolved (TDS)	770	10 mg/L	04/21/09	04/27/09
Client ID : Lab ID :	MW-14-1 BMI09042240-05A	Solids, Total Dissolved (TDS)	740	10 mg/L	04/21/09	04/27/09
Client ID : Lab ID :	EB-01-4/21/09 BMI09042240-06A	Solids, Total Dissolved (TDS)	ND	10 mg/L	04/21/09	04/28/09

ND = Not Detected

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808

ax: (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	MW-14-5 BMI09042240-01 A	Sulfur dioxide	13	2.0 μg/L	04/22/09	04/21/09	04/29/09
Client ID : Lab ID :	MW-14-4 BMI09042240-02A	Sulfur dioxide	6.1	2.0 μg/L	04/22/09	04/21/09	04/29/09
Client ID : Lab ID :	MW-14-3 BMI09042240-03A	Sulfur dioxide	4.5	2.0 μg/L	04/22/09	04/21/09	04/29/09
Client ID : Lab ID :	MW-14-2 BMI09042240-04A	Sulfur dioxide	3.7	2.0 μg/L	04/22/09	04/21/09	04/29/09
Client ID: Lab ID:	MW-14-1 BMI09042240-05A	Sulfur dioxide	2.9	2.0 μg/L	04/22/09	04/21/09	04/29/09
Client ID : Lab ID :	EB-01-4/21/09 BMI09042240-06A	Tertiary Butyl Alcohol (TBA) 2-Methyl-1-propene	73 3.0	10 μg/L 2.0 μg/L	04/22/09 04/22/09	04/21/09 04/21/09	04/29/09 04/29/09
Client ID : Lab ID :	TB-01-4/21/09 BMI09042240-07A	*** None Found ***	ND	2.0 μg/L	04/22/09	04/21/09	04/29/09

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Leholl Kandy Saulus Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
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Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.

Report Date

5/5/09



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

Date: 03-May-09

David Conner

Battelle Memorial Institute

3990 Old Town Ave

San Diego, CA 92110 (818) 393-2808

Suite C-205

CASE NARRATIVE

Project:

G005862/JPL Groundwater Monitoring

Work Order:

BMI09042240

Cooler Temp:

4°C

Alpha's Sample ID	Client's Sample ID	Matrix
09042240-01A	MW-14-5	Aqueous
09042240-02A	MW-14-4	Aqueous
09042240-03A	MW-14-3	Aqueous
09042240-04A	MW-14-2	Aqueous
09042240-05A	MW-14-1	Aqueous
09042240-06A	EB-01-4/21/09	Aqueous
09042240-07A	TB-01-4/21/09	Aqueous

Manually Integrated Analytes

Alpha's Sample ID

Test Reference

Analyte

NONE

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Saulner

Walter Hirihon



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Phone: Fax:

David Conner (818) 393-2808 (614) 458-6641

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Sampled: 04/21/09

Alpha Analytical Number: BMI09042240-01A Client I.D. Number: MW-14-5

Received: 04/22/09

Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	125	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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1.0

μg/L

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5/5/09

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: Phone:

David Conner (818) 393-2808

Fax:

(614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042240-02A

Sampled: 04/21/09

Client I.D. Number: MW-14-4

Received: 04/22/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

ALBERT TO	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	123	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	99	(70-130)	%REG
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REG
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

μg/L

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Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: Phone: Fax:

David Conner (818) 393-2808 (614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042240-03A

Sampled: 04/21/09

Client I.D. Number: MW-14-3

Received: 04/22/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	1.1	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	128	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	95	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

μg/L

5/5/09 **Report Date**

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042240-04A Sampled: 04/21/09

Client I.D. Number: MW-14-2 Received: 04/22/09
Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC)	P) ND	2.5	μg/L
25	Trichloroethene	7.1	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	124	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl Kandy Santour

ND

Walter Herekows

 $Roger\ L.\ Scholl,\ Ph.D.,\ Laboratory\ Director \bullet \bullet Randy\ Gardner,\ Laboratory\ Manager \bullet \bullet Walter\ Hinchman,\ Quality\ Assurance\ Officer$

μg/L

 $Sacramento, CA \bullet (916)\ 366-9089\ /\ Las\ Vegas, NV \bullet (702)\ 736-7522\ /\ info@alpha-analytical.com$

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5/5/09 Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

David Conner Attn: Phone: (818) 393-2808

Fax:

G005862/JPL Groundwater Monitoring

(614) 458-6641

Alpha Analytical Number: BMI09042240-05A

Sampled: 04/21/09 Received: 04/22/09

Client I.D. Number: MW-14-1

Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND .	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	3.4	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	128	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

0.50

μg/L

μg/L

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/5/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042240-06A Sampled: 04/21/09

Client I.D. Number: EB-01-4/21/09 Received: 04/22/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	· ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MiBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	116	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

Tetrachloroethene

Roger Scholl Kandy Saulan Walter 4

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

1.0

μg/L

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

5/5/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Da Phone: (8

David Conner (818) 393-2808

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Fax: (61

(614) 458-6641

Alpha Analytical Number: BMI09042240-07A Client I.D. Number: TB-01-4/21/09

240-07A Sampled: 04/21/09 Received: 04/22/09

Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	. 0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	116	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl Kandy Soulm

ND

ND

Dalter Hirihun

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

 $Sacramento, CA \bullet (916)\ 366-9089\ /\ Las\ Vegas, NV \bullet (702)\ 736-7522\ /\ info@alpha-analytical.com$

1.0

μg/L

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

5/5/09 Report Date



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

VOC Sample Preservation Report

Work Order: BMI09042240 Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН
09042240-01A	MW-14-5	Aqueous	2
09042240-02A	MW-14-4	Aqueous	2
09042240-03A	MW-14-3	Aqueous	2
09042240-04A	MW-14-2	Aqueous	2
09042240-05A	MW-14-1	Aqueous	2
09042240-06A	EB-01-4/21/09	Aqueous	2
09042240-07A	TB-01-4/21/09	Aqueous	2

5/5/09 Report Date

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

EMail Address

Client:

Battelle Memorial Institute

San Diego, CA 92110

Betsy Cutie

(614) 424-4899 x

cutiee@batelle.org

Suite C-205 3990 Old Town Ave

> Report Attention Shane Walton David Conner Phone Number (614) 424-4117 x (619) 574-4827 x waltons@battelle.org connerd@battelle.org

PO: 218013 Client's COC #: 25549 Job : G005862/JPL Groundwater Monitoring

AMENDED Page: 1 of 2

WorkOrder: BMIS09042240

Report Due By: 5:00 PM On: 06-May-09

EDD Required: No

Sampled by: Client

Cooler Temp

Samples Received

Date Printed

22-Apr-09 23-Apr-09

							Requested Tests	d Tests				
Alpha	Client	Collection	No. of Bottles	300_0(A)_	300_0(B)_	300_0(C)_	314_W /	314_W ALKALINIT METALS_D	NETALS_D	PH_W	TDS	
Sample ID	Sample ID	Matrix Date	Alpha Sub TAT	*		8		W_Y	*			Sample Remarks
BMI09042240-01A	MW-14-5	AQ 04/21/09 09:00	5 0 10	0 NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042240-02A	MW-14-4	AQ 04/21/09 09:40	5 0 1	10 NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-03A	MW-14-3	AQ 04/21/09 10:15	5 0 1	10 NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-04A	MW-14-2	AQ 04/21/09 10:55	5 0 1	10 NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	pH	TDS	
BMI09042240-05A	MW-14-1	AQ 04/21/09 11:40	5 0 1	10 NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-06A	EB-01-4/21/09	AQ 04/21/09 11:20	5 0 1	10 NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	NO2, NO3, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042240-07A	TB-01-4/21/09	AQ 04/21/09 00:00	1 0 10	0					**************************************			Reno Trip Blank 1/6/09

Logged in by: Patiena Edicasa atricia Alpha Analytical, Inc. Company 4/23/09 14:5/ Date/Time

No security seals. Frozen ice. Temp Blank # 4980 received @ 4 ° Celcius. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).

Logged in Gen Chem per spreadsheet from sampler. : Amended 4/23/09 @ 14:51 to remove PO4 from all samples, due to login error. LE

Comments:

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

Client:

Battelle Memorial Institute

3990 Old Town Ave Suite C-205

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Report Attention David Conner Betsy Cutie Shane Walton Phone Number (619) 574-4827 x (614) 424-4899 x (614) 424-4117 x connerd@battelle.org cutiee@batelle.org waltons@battelle.org **EMail Address**

AMENDED Page: 2012

WorkOrder: BMIS09042240

Report Due By: 5:00 PM On: 06-May-09

EDD Required: No

Sampled by: Client

Cooler Temp

Samples Received 22-Apr-09

23-Apr-09 Date Printed

QC Level: DS4 = DOD QC Required : Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates

Job :

G005862/JPL Groundwater Monitoring

Client's COC #: 25549

PO: 218013

San Diego, CA 92110

									Requested Tests	
Alpha Sample ID	Client Sample ID	Matı	Collection Matrix Date	No. of Bottles Alpha Sub	Bottles Sub	TAT	VOC_TIC_	VOC_W		Sample Remarks
BMI09042240-01A	MW-14-5	AQ	04/21/09 09:00	5	0	10	VOC by 524 VOC by 524 Criteria Criteria	OC by 524 Criteria		
BMI09042240-02A	MW-14-4	AQ	04/21/09 09:40	5	0	10	VOC by 524 VOC by 524 Criteria Criteria	OC by 524 Criteria		
BMI09042240-03A	MW-14-3	ΑQ	04/21/09 10:15	ڻ.	0	10	VOC by 524 VOC by 524 Criteria Criteria	OC by 524 Criteria		
BMI09042240-04A	MW-14-2	AQ	04/21/09 10:55	Q 1	0	10	VOC by 524 VOC by 524 Criteria Criteria	/OC by 524 Criteria		
BMI09042240-05A	MW-14-1	AQ	04/21/09 11:40	5	0	10	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI09042240-06A	EB-01-4/21/09	AQ	04/21/09 11:20	0 1	0	10	VOC by 524 VOC by 524 Criteria Criteria	OC by 524 Criteria		
BMI09042240-07A TB-01-4/21/09	TB-01-4/21/09	AQ	04/21/09 00:00	_	0	10	VOC by 524 VOC by 524 Criteria Criteria	OC by 524 Criteria		Reno Trip Blank 1/6/09

Logged in by: Logged in Gen Chem per spreadsheet from sampler. : Amended 4/23/09 @ 14:5 | to remove PO4 from all samples, due to login error. LE Estucia Ediasa Signature Latricia **Print Name** Alpha Analytical, Inc. Company Date/Time

No security seals. Frozen ice. Temp Blank # 4980 received @ 4 ° Celcius. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).

Comments:

5.11 Ba(EC)+

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

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Report Attention

Phone Number

EMail Address

Battelle Memorial Institute San Diego, CA 92110 3990 Old Town Ave Suite C-205

Client:

David Conner Shane Walton Betsy Cutie (614) 424-4899 x (614) 424-4117 x (619) 574-4827 x connerd@battelle.org cutiee@batelle.org waltons@battelle.org

Page: 1 of 2

WorkOrder: BMIS09042240

Report Due By: 5:00 PM On: 06-May-09

EDD Required: Yes Sampled by: Client

Cooler Temp

Samples Received 22-Apr-09 Date Printed 22-Apr-09

QC Level: DS4 = DOD QC Required : Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates

Job :

G005862/JPL Groundwater Monitoring

Client's COC #: 25549

PO: 218013

										Requested Tests	ed Tests				
Alpha Sample ID	Client Sample ID	Collecti Matrix Date	9	No. of Bottles Alpha Sub TAT	ottles Sub T.		300_0(A)_ W	_ 300_0(B)_ W	300_0(C)_ W	314_W	ALKALINIT METALS_D Y_W W	METALS_D W	PH_W	TDS	Sample Remarks
BMI09042240-01A	MW-14-5	AQ 0	04/21/09 09:00	Οī	0	10	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-02A	MW-14-4	AQ 0	04/21/09 09:40	(J	0	10	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-03A MW-14-3	MW-14-3	AQ 0	04/21/09 10:15	ڻ.	0	10	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-04A	MW-14-2	AQ 0	04/21/09 10:55	Ŋ	0	10	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-05A	MW-14-1	AQ 0	04/21/09 11:40	თ	0	10	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-06A	EB-01-4/21/09	AQ 0	04/21/09 11:20	51	0	10	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	NO2, NO3, PO4, SO4, CL	Perchlorate	Alk (Bicarb, Carb, Total)	As, Cr, Pb, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042240-07A TB-01-4/21/09	TB-01-4/21/09	AQ 0	04/21/09 00:00		0	10	dhanin dadd da habanini m mar								Reno Trip Blank 1/6/09

Comments: No security seals. Frozen ice. Temp Blank # 4980 received @ 4 ° Celcius. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Logged in Gen Chem per spreadsheet from sampler: :

AND THE REPORT OF THE PROPERTY	Logged in by:	
	Jatueia Eduasa	Signature
	Latricia Edvosa	Print Name
	Alpha Analytical, Inc.	Company
	4 palog 10:3	Date/Time

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

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Report Attention

(619) 574-4827 x (614) 424-4117 x (614) 424-4899 x

connerd@battelle.org

EMail Address

waltons@battelle.org cutiee@batelle.org

Battelle Memorial Institute 3990 Old Town Ave Suite C-205

San Diego, CA 92110
PO: 218013
Client's COC #: 25549

David Conner
Shane Walton
Betsy Cutie

QC Level: DS4

5

Page: Jof J

WorkOrder: BMIS09042240

Report Due By: 5:00 PM On: 06-May-09

EDD Required: Yes

Sampled by: Client

Cooler Temp Sam

Samples Received 22-Apr-09

Date Printed
22-Apr-09

DOD QC Required: Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates Job : G005862/JPL Groundwater Monitoring

Sample ID BMI09042240-06A EB-01-4/21/09 BMI09042240-04A MW-14-2 BMI09042240-02A MW-14-4 BMI09042240-07A TB-01-4/21/09 BMI09042240-01A MW-14-5 BMI09042240-05A BMI09042240-03A MW-14-3 MW-14-1 Sample ID å Š å å Š å Matrix Date 04/21/09 09:00 04/21/09 00:00 04/21/09 09:40 04/21/09 11:40 04/21/09 10:55 Collection No. of Bottles 04/21/09 04/21/09 11:20 Alpha Sub G G G 5 G 5 0 0 0 0 TAT 6 6 5 5 6 5 VOC by 524 VOC by 524 Criteria Criteria VOC_TIC_ VOC_W Requested Tests Reno Trip Blank 1/6/09 Sample Remarks

Comments: No security seals. Frozen ice. Temp Blank # 4980 received @ 4 ° Celcius. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Logged in Gen Chem per spreadsheet from sampler. :

Logged in by: rature a Ediasa Latricia Marosa Alpha Analytical, Inc. Company #13209 10:31

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

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.	Received by	Relinquished by	Received by	Received by Relinquished by	Relinquished by	Signature	ADDITIONAL INSTRUCTIONS:				11/20	1/40	1855	1015		10-0hee hobsilus of byth abo	Sampled See Key Below		OCD TOWN D	CONN	City, State, Zip COLUMISUS , OH Phone NumberFax _	1 5
WA - Waste C ter results are reported those samples receive				hoso to	CH		3:			-0/7/57	4	-05 MW		1	~_	340-01 MW-14-5	Office (Use Only)	Report Attention	ζω,	P.O. # 21 EMail Address	4570	
OT - Other AR - Air and unless other arrangements ved by the laboratory with this				Hricia Ed	HE BROGDAN	Print Name				12-01-4/21/07	116/4		MW-14-2	14-3	14-4	4-5	Sample Description	1/6	0 11	218013 dress	Fa	3 25 A
**: L-Liter V-Voa are made. Hazardous san coc. The liability of the lat				msa													TAT Fild Filtered		Fax#	Job# (20586]	Fax (775) 355-0406	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Phone (775) 355-1004
S-Soil Jar nples will be return ooratory is limited t				HQH	14219VI	0				+ ×		, _	X	X	×			Total and type of		67		
O-Orbo T-Tedlar ed to client or disposed of to the amount paid for the				JQ.	- GECT	Company					×	X	X X X	X X X	××××	XXXX	TOTAL STATE OF A CONTRACT OF THE STATE OF TH	TONE CHE	57 (2) (3)	(1.2) (0.8) (4.5) (4.5)	Analyses Required	nples Collected CA 🗡
B-Brass P-Plastic at client expense. The r report.				4/25/1	offello	Date				7)4							310. PI	1057	60. Hor	150.1	Required	NV WA OTHER
stic OT-Other he report for the analysis				10:05	9 1300	Time				CHOHOK	EQUIPMEN BLANK						REMARKS	EDD / EDT : 1E3 NO		Required QC Level?		25549 Page # 1 of 1



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

Date: 01-May-09

David Conner

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

(818) 393-2808

Suite C-205

CASE NARRATIVE

Project:

G005862/JPL Groundwater Monitoring

Work Order:

BMI09042341

Cooler Temp:

4°C

	_	, ooiti 10111p.	
Alpha's Sample ID	Client's Sample ID	Matrix	
09042341-01A	MW-22-5	Aqueous	
09042341-02A	MW-22-4	Aqueous	
09042341-03A	MW-22-3	Aqueous	
09042341-04A	MW-22-2	Aqueous	
09042341-05A	MW-22-1	Aqueous	
09042341-06A	EB-02-04/22/09	Aqueous	
09042341-07A	TB-02-04/22/09	Aqueous	

Manually Integrated Analytes

	Manually Integrated Ana.	Ytes	
Alpha's Sample ID	Test Reference	Analyte	
09042341-03A	EPA Method 314.0	Perchlorate	
09042341-04A	EPA Method 314.0	Perchlorate	
09042341-05A	EPA Method 314.0	Perchlorate	

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Saulner

Walter Hirihow



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn:

David Conner

Phone:

(818) 393-2808

Fax:

(614) 458-6641

Date Received: 04/23/09

Job#:

G005862/JPL Groundwater Monitoring

Perchlorate by Ion Chromatography

EPA Method 314.0

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-22-5 BMI09042341-01A	Perchlorate	ND	1.00 μg/L	04/22/09	04/23/09
Client ID : Lab ID :	MW-22-4 BMI09042341-02A	Perchlorate	ND	1.00 µg/L	04/22/09	04/23/09
Client ID: Lab ID:	MW-22-3 BMI09042341-03 A	Perchlorate	2.48	1.00 µg/L	04/22/09	04/23/09
Client ID: Lab ID:	MW-22-2 BMI09042341-04A	Perchlorate	2.14	1.00 µg/L	04/22/09	04/23/09
Client ID : Lab ID :	MW-22-1 BMI09042341-05A	Perchlorate	2.27	1.00 µg/L	04/22/09	04/23/09
Client ID: Lab ID:	EB-02-04/22/09 BMI09042341-06A	Perchlorate	ND	1.00 μg/L	04/22/09	04/23/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/6/09



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

Date: 27-Apr-09		C	QC S	umma	ry Repor	t				Work Orde 09042341	
Method Bla	nk		Type I		Test Code: E Batch ID: 218		thod 314.0	Analys	sis Date:	04/23/2009 13:27	
Sample ID:	MB-21868	Units : µg/L		Run ID: I	C_3_090423	4		Prep [Date:	04/23/2009	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Perchlorate		ND		1							
Laboratory	Fortified Blank		Type I	LFB	Test Code: E	PA Met	hod 314.0				
File ID: 15				E	Batch ID: 218	68		Analys	sis Date:	04/23/2009 13:45	
Sample ID:	LFB-21868	Units : µg/L		Run ID: I	C_3_090423	4		Prep [Date:	04/23/2009	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Perchlorate		24.8		2 2	5	99	85	115			
Sample Mat	rix Spike		Туре І	LFM	Test Code: E	PA Met	hod 314.0				
File ID: 31				1	Batch ID: 218	68		Analys	sis Date:	04/23/2009 18:40	
Sample ID:	09042341-02ALFM	Units : µg/L		Run ID: I	C_3_090423	A		Prep [Date:	04/23/2009	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Perchlorate		23.7		2 2	5 0	95	80	120			
Sample Mat	rix Spike Duplicate		Type I	LFMD	Test Code: E	PA Met	thod 314.0				
File ID: 32	• •				Batch ID: 218	68		Analys	sis Date:	04/23/2009 18:58	
Sample ID:	09042341-02ALFMD	Units : µg/L		Run ID: I	C_3_090423	Ą		Prep [Date:	04/23/2009	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Perchlorate		23.8		2 2	5 0	95	80	120	23.7	3 0.5(15)	

Comments:

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



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Date Received: 04/23/09

Job#: G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID: MW-22-5	Nitrite (NO2) - N	ND	0.25 mg/L	04/22/09 08:13	04/23/09 12:41
Lab ID: BMI09042341-01A	Nitrate (NO3) - N	ND	0.25 mg/L	04/22/09 08:13	04/23/09 12:41
Client ID: MW-22-4	Nitrite (NO2) - N	ND	0.25 mg/L	04/22/09 08:55	04/23/09 13:00
Lab ID: BMI09042341-02A	Nitrate (NO3) - N	3.3	0.25 mg/L	04/22/09 08:55	04/23/09 13:00
Client ID: MW-22-3	Nitrite (NO2) - N	ND	0.25 mg/L	04/22/09 09:51	04/23/09 13:55
Lab ID: BMI09042341-03A	Nitrate (NO3) - N	8.7	0.25 mg/L	04/22/09 09:51	04/23/09 13:55
Client ID: MW-22-2	Nitrite (NO2) - N	ND	0.25 mg/L	04/22/09 10:25	04/23/09 14:14
Lab ID: BMI09042341-04A	Nitrate (NO3) - N	8.2	0.25 mg/L	04/22/09 10:25	04/23/09 14:14
Client ID: MW-22-1	Nitrite (NO2) - N	ND	0.25 mg/L	04/22/09 11:03	04/23/09 14:32
Lab ID : BMI09042341-05A	Nitrate (NO3) - N	13	0.25 mg/L	04/22/09 11:03	04/23/09 14:32
Client ID : EB-02-04/22/09	Nitrite (NO2) - N	ND	0.25 mg/L	04/22/09 10:50	04/23/09 14:51
Lab ID: BMI09042341-06A	Nitrate (NO3) - N	ND	0.25 mg/L	04/22/09 10:50	04/23/09 14:51

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: **David Conner** Phone: (619) 574-4827

(614) 458-6641 Fax:

Date Received: 04/23/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
				2	~ unipio	<i>j</i>
Client ID:	MW-22-5					
Lab ID:	BMI09042341-01A	Chloride	7.5	0.50 mg/L	04/22/09	04/23/09
		Sulfate (SO4)	36	0.50 mg/L	04/22/09	04/23/09
Client ID:	MW-22-4					
Lab ID:	BMI09042341-02A	Chloride	14	0.50 mg/L	04/22/09	04/23/09
		Sulfate (SO4)	17	0.50 mg/L	04/22/09	04/23/09
Client ID:	MW-22-3					
Lab ID:	BMI09042341-03A	Chloride	45	2.5 mg/L	04/22/09	04/24/09
		Sulfate (SO4)	60	0.50 mg/L	04/22/09	04/23/09
Client ID:	MW-22-2					
Lab ID:	BMI09042341-04A	Chloride	47	0.50 mg/L	04/22/09	04/23/09
		Sulfate (SO4)	42	0.50 mg/L	04/22/09	04/23/09
Client ID:	MW-22-1					
Lab ID:	BMI09042341-05A	Chloride	120	2.5 mg/L	04/22/09	04/24/09
		Sulfate (SO4)	180	2.5 mg/L	04/22/09	04/24/09
Client ID:	EB-02-04/22/09					
Lab ID:	BMI09042341-06A	Chloride	ND	0.50 mg/L	04/22/09	04/23/09
	2	Sulfate (SO4)	ND	0.50 mg/L	04/22/09	04/23/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

 $Sacramento, CA \bullet (916)\ 366-9089\ /\ Las\ Vegas,\ NV \bullet (702)\ 736-7522\ /\ info@alpha-analytical.com$

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: **David Conner** Phone: (619) 574-4827 Fax: (614) 458-6641 Date Received: 04/23/09

Job#: G005862/JPL Groundwater Monitoring

> Alkalinity SM2320B

		Parameter	Concentration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID:	MW-22-5					
Lab ID:	BMI09042341-01A	Alkalinity, Bicarbonate (As CaCO3)	23	10 mg/L	04/22/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	92	10 mg/L	04/22/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	120	10 mg/L	04/22/09	04/27/09
Client ID:	MW-22-4					
Lab ID:	BMI09042341-02A	Alkalinity, Bicarbonate (As CaCO3)	170	10 mg/L	04/22/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/22/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	170	10 mg/L	04/22/09	04/27/09
Client ID:	MW-22-3					
Lab ID:	BMI09042341-03A	Alkalinity, Bicarbonate (As CaCO3)	180	10 mg/L	04/22/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/22/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	180	10 mg/L	04/22/09	04/27/09
Client ID:	MW-22-2					
Lab ID:	BMI09042341-04A	Alkalinity, Bicarbonate (As CaCO3)	190	10 mg/L	04/22/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/22/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	190	10 mg/L	04/22/09	04/27/09
Client ID:	MW-22-1					
Lab ID:	BMI09042341-05A	Alkalinity, Bicarbonate (As CaCO3)	280	10 mg/L	04/22/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/22/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	280	10 mg/L	04/22/09	04/27/09
Client ID:	EB-02-04/22/09					
Lab ID:	BMI09042341-06A	Alkalinity, Bicarbonate (As CaCO3)	ND	10 mg/L	04/22/09	04/28/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/22/09	04/28/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	ND	10 mg/L	04/22/09	04/28/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: **David Conner** Phone: (619) 574-4827 (614) 458-6641 Fax:

Date Received: 04/23/09

Job#:

G005862/JPL Groundwater Monitoring

pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

	Parameter	Concentration	Reporting	Date / Time	Date / Time
			Limit	Sampled	Analyzed
Client ID: MW-22-5	pН	9.4	1.7 pH Units	04/22/09 08:13	04/23/09 16:48
Lab ID: BMI09042341-01A	pH - Temperature	19	1.0 °C	04/22/09 08:13	04/23/09 16:48
Client ID: MW-22-4	рН	7.8	1.7 pH Units	04/22/09 08:55	04/23/09 16:50
Lab ID: BMI09042341-02A	pH - Temperature	18	1.0 °C	04/22/09 08:55	04/23/09 16:50
Client ID: MW-22-3	рН	7.9	1.7 pH Units	04/22/09 09:51	04/23/09 16:52
Lab ID: BMI09042341-03A	pH - Temperature	18	1.0 °C	04/22/09 09:51	04/23/09 16:52
Client ID: MW-22-2	рН	7.9	1.7 pH Units	04/22/09 10:25	04/23/09 16:54
Lab ID: BMI09042341-04A	pH - Temperature	18	1.0 °C	04/22/09 10:25	04/23/09 16:54
Client ID: MW-22-1	рН	7.2	1.7 pH Units	04/22/09 11:03	04/23/09 16:56
Lab ID: BMI09042341-05A	pH - Temperature	18	1.0 °C	04/22/09 11:03	04/23/09 16:56
Client ID : EB-02-04/22/09	рН	6.0	1.7 pH Units	04/22/09 10:50	04/23/09 16:59
Lab ID: BMI09042341-06A	pH - Temperature	19	1.0 °C	04/22/09 10:50	04/23/09 16:59

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

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ANALYTICAL REPORT

Battelle Memorial Institute

3990 Old Town Ave San Diego, CA 92110 Attn: David Conner

Phone: (818) 393-2808

Fax: (614) 458-6641

Date Received: 04/23/09

Job#: G005862/JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8

		Parameter	Concentration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID:	MW-22-5					
Lab ID:	BMI09042341-01A	Sodium (Na)	72	0.50 mg/L	04/22/09	04/27/09
		Magnesium (Mg)	0.99	0.50 mg/L	04/22/09	04/27/09
		Potassium (K)	0.91	0.50 mg/L	04/22/09	04/27/09
		Calcium (Ca)	4.7	0.50 mg/L	04/22/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/22/09	04/27/09
		Iron (Fe)	ND	0.10 mg/L	04/22/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/22/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/22/09	04/27/09
Client ID:	MW-22-4					
Lab ID:	BMI09042341-02A	Sodium (Na)	31	0.50 mg/L	04/22/09	04/27/09
		Magnesium (Mg)	12	0.50 mg/L	04/22/09	04/27/09
		Potassium (K)	1.8	0.50 mg/L	04/22/09	04/27/09
		Calcium (Ca)	40	0.50 mg/L	04/22/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/22/09	04/27/09
		Iron (Fe)	0.18	0.10 mg/L	04/22/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/22/09	04/27/09
		Lead (Pb)	ND	$0.0050\ mg/L$	04/22/09	04/27/09
Client ID:	MW-22-3					
Lab ID:	BMI09042341-03A	Sodium (Na)	41	0.50 mg/L	04/22/09	04/27/09
		Magnesium (Mg)	21	0.50 mg/L	04/22/09	04/27/09
		Potassium (K)	2.3	0.50 mg/L	04/22/09	04/27/09
		Calcium (Ca)	65	0.50 mg/L	04/22/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/22/09	04/27/09
		Iron (Fe)	0.47	0.10 mg/L	04/22/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/22/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/22/09	04/27/09
Client ID:	MW-22-2					
Lab ID:	BMI09042341-04A	Sodium (Na)	31	0.50 mg/L	04/22/09	04/27/09
		Magnesium (Mg)	21	0.50 mg/L	04/22/09	04/27/09
		Potassium (K)	2.1	0.50 mg/L	04/22/09	04/27/09
		Calcium (Ca)	56	0.50 mg/L	04/22/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/22/09	04/27/09
		Iron (Fe)	0.39	0.10 mg/L	04/22/09	04/27/09
		Arsenic (As)	ND	0.0020~mg/L	04/22/09	04/27/09
		Lead (Pb)	ND	0.0050~mg/L	04/22/09	04/27/09



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Client ID:	MW-22-1					
Lab ID:	BMI09042341-05A	Sodium (Na)	36	0.50 mg/L	04/22/09	04/27/09
Late ID .	DM107042541-05A	Magnesium (Mg)	54	0.50 mg/L	04/22/09	04/27/09
		Potassium (K)	2.9	0.50 mg/L	04/22/09	04/27/09
		Calcium (Ca)	160	0.50 mg/L	04/22/09	04/27/09
			ND	0.0050 mg/L	04/22/09	04/27/09
		Chromium (Cr)		C		04/27/09
		Iron (Fe)	1.5	0.10 mg/L	04/22/09	
		Arsenic (As)	ND	0.0020 mg/L	04/22/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/22/09	04/27/09
Client ID:	EB-02-04/22/09					
Lab ID:	BMI09042341-06A	Sodium (Na)	ND	0.50 mg/L	04/22/09	04/27/09
		Magnesium (Mg)	ND	0.50 mg/L	04/22/09	04/27/09
		Potassium (K)	ND	0.50 mg/L	04/22/09	04/27/09
		Calcium (Ca)	ND	0.50 mg/L	04/22/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/22/09	04/27/09
		Iron (Fe)	ND	0.10 mg/L	04/22/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/22/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/22/09	04/27/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn:

David Conner

Phone: (619) 574-4827

Fax:

(614) 458-6641 Date Received: 04/23/09

Job#:

G005862/JPL Groundwater Monitoring

Total Dissolved Solids (TDS)

SM2540C

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-22-5 BMI09042341-01A	Solids, Total Dissolved (TDS)	210	10 mg/L	04/22/09	04/27/09
Client ID: Lab ID:	MW-22-4 BMI09042341-02A	Solids, Total Dissolved (TDS)	230	10 mg/L	04/22/09	04/27/09
Client ID: Lab ID:	MW-22-3 BMI09042341-03A	Solids, Total Dissolved (TDS)	380	10 mg/L	04/22/09	04/28/09
Client ID : Lab ID :	MW-22-2 BMI09042341-04A	Solids, Total Dissolved (TDS)	340	10 mg/L	04/22/09	04/27/09
Client ID: Lab ID:	MW-22-1 BMI09042341-05A	Solids, Total Dissolved (TDS)	800	10 mg/L	04/22/09	04/27/09
Client ID: Lab ID:	EB-02-04/22/09 BMI09042341-06A	Solids, Total Dissolved (TDS)	ND	10 mg/L	04/22/09	04/27/09

ND = Not Detected

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56/09



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808

Fax:

k: (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Tentatively Identified Compounds - Volatile Organics by GC/MS

		Parameter	Estimated Concentration	Estimated Reporting Limit	Date Received	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-22-5 BMI09042341-01A	Sulfur dioxide	67	2.0 μg/L	04/23/09	04/22/09	04/29/09
Client ID: Lab ID:	MW-22-4 BMI09042341-02A	Sulfur dioxide	26	2.0 μg/L	04/23/09	04/22/09	04/29/09
Client ID: Lab ID:	MW-22-3 BMI09042341-03A	Sulfur dioxide	16	2.0 μg/L	04/23/09	04/22/09	04/29/09
Client ID: Lab ID:	MW-22-2 BMI09042341-04A	Sulfur dioxide	11	2.0 μg/L	04/23/09	04/22/09	04/29/09
Client ID : Lab ID :	MW-22-1 BMI09042341-05A	Sulfur dioxide	6.8	2.0 μg/L	04/23/09	04/22/09	04/29/09
Client ID: Lab ID:	EB-02-04/22/09 BMI09042341-06A	Tertiary Butyl Alcohol (TBA) 2-Methyl-1-propene	39 3.9	10 μg/L 2.0 μg/L	04/23/09 04/23/09	04/22/09 04/22/09	04/29/09 04/29/09
Client ID : Lab ID :	TB-02-04/22/09 BMI09042341-07A	*** None Found ***	ND	2.0 μg/L	04/23/09	04/22/09	04/29/09

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Walter Hinkow

5/6/09

Report Date

Page 1 of 1

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: Phone:

David Conner (818) 393-2808

Fax:

(614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042341-01A

Client I.D. Number: MW-22-5

Sampled: 04/22/09 Received: 04/23/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND .	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	122	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

1.0

μg/L

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Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042341-02A Sampled: 04/22/09

Client I.D. Number: MW-22-4 Received: 04/23/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND .	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	122	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl Kandy Saulmer

ND

ND

Walter Hirkory

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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1.0

μg/L

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5/6/09 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Job#:

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042341-03A

Client I.D. Number: MW-22-3

Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Sampled: 04/22/09 Received: 04/23/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	125	(70-130)	%RE
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	99	(70-130)	%RE
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%RE
32	1,3-Dichloropropane	ND	0.50	μg/L			,	, ,	
33	Dibromochloromethane	ND	0.50	ua/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

Tetrachloroethene

Roger Scholl

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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1.0

0.50

μg/L

μg/L

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5/6/09



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042341-04A

Client I.D. Number: MW-22-2

Attn: **David Conner**

Phone: (818) 393-2808 Fax:

(614) 458-6641

Sampled: 04/22/09

Received: 04/23/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	124	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	97	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	ug/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

Tetrachloroethene

Roger Scholl

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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1.0

μg/L

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5/6/09

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

b#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042341-05A

Client I.D. Number: MW-22-1

Sampled: 04/22/09

Received: 04/23/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC)	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	127	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	99	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	96	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl Kandy Salver

0.66

Walter Acrimo

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

1.0

μg/L

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5/6/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Phone:

David Conner (818) 393-2808

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

(614) 458-6641 Fax:

Alpha Analytical Number: BMI09042341-06A

Sampled: 04/22/09

Client I.D. Number: EB-02-04/22/09

Received: 04/23/09 Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	· ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	120	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	96	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl

ND

ND

 $Roger\ L.\ Scholl,\ Ph.D.,\ Laboratory\ Director \bullet \bullet Randy\ Gardner,\ Laboratory\ Manager \bullet \bullet Walter\ Hinchman,\ Quality\ Assurance\ Officer$

1.0

μg/L

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Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Phone:

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042341-07A

Client I.D. Number: TB-02-04/22/09

(818) 393-2808 Fax: (614) 458-6641

David Conner

Sampled: 04/22/09 Received: 04/23/09

Analyzed: 04/29/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	µg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	. ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	119	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	98	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	103	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

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VOC Sample Preservation Report

Work Order: BMI09042341

Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
09042341-01A	MW-22-5	Aqueous	2	
09042341-02A	MW-22-4	Aqueous	2	
09042341-03A	MW-22-3	Aqueous	2	
09042341-04A	MW-22-2	Aqueous	2	
09042341-05A	MW-22-1	Aqueous	2	
09042341-06A	EB-02-04/22/09	Aqueous	2	
09042341-07A	TB-02-04/22/09	Aqueous	2	

5/6/09 Report Date

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

Report Attention

David Conner

Shane Walton

Betsy Cutie

San Diego, CA 92110 Suite C-205 **Battelle Memorial Institute** 3990 Old Town Ave

> TEL: (775) 355-1044 FAX: (775) 355-0406 Phone Number **EMail Address**

> > **Report Due By: 5:00 PM On: 07-May-09**

WorkOrder: BMIS09042341

Page: 1 of

(614) 424-4117 (614) 424-4899 x (619) 574-4827 x connerd@battelle.org cutiee@batelle.org waltons@battelle.org

EDD Required: Yes

Sampled by: Client Cooler Temp

Samples Received 23-Apr-09

Date Printed 23-Apr-09

QC Level: DS4 DOD QC Required: Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates G005862/JPL Groundwater Monitoring

Job :

Client's COC #: 25542

Sample ID BMI09042341-07A TB-02-04/22/09 BMI09042341-06A BMI09042341-03A MW-22-3 BMI09042341-02A MW-22-4 BMI09042341-01A MW-22-5 BMI09042341-05A BMI09042341-04A MW-22-2 EB-02-04/22/09 MW-22-1 Sample ID Client Matrix Date å å å à à å AQ 04/22/09 08:13 04/22/09 08:55 04/22/09 09:51 04/22/09 00:00 04/22/09 10:50 04/22/09 11:03 04/22/09 10:25 Collection No. of Bottles Alpha Sub 5 5 G 5 S 5 0 0 0 0 0 0 0 ΤAΤ 5 6 6 6 6 6 6 NO2, NO3, SO4, CL NO2, NO3, SO4, CL NO2, NO3, NO2, NO3, NO2, NO3, Perchlorate Alk (Bicarb. Cr. Pb, As, SO4, CL SO4, CL Carb, Total) Na, K, Ca, Mg, Fe NO2, NO3, SO4, CL NO2, NO3, NO2, NO3, NO2, NO3, SO4, CL SO4, CL SO4, CL NO2, NO3, NO2, NO3, NO2, NO3, SO4, CL SO4, CL SO4, CL 300_0(A)_ 300_0(B)_ 300_0(C)_ W W W NO2, NO3, SO4, CL Perchlorate Alk (Bicarb, Cr, Pb, As, Carb, Total) Na, K, Ca, Mg, Fe Perchlorate Alk (Bicarb, Cr, Pb, As, Cab, Total) Na, K, Ca, Perchlorate Perchlorate Requested Tests 314_W Alk (Bicarb, Carb, Total) ALKALINIT METALS_D
Y_W W Alk (Bicarb, Carb, Total) Alk (Bicarb, Cr, Pb, As, Carb, Total) Na, K, Ca, Cr, Pb, As, Na, K, Ca, Mg, Fe Cr, Pb, As, Na, K, Ca, PH_W 멎 PΗ PΗ PΗ PΗ PΗ SdI TDS TDS TDS TDS TDS TDS Reno Trip Blank 9/30/08 Sample Remarks MS/MSD

Comments: Logged in Gen Chem per spreadsheet from sampler. : No security seals. Frozen ice. Temp Blank # 7771 received @ 4 ° C. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).

Logged in by: buria. Eduasa STICIO **Print Name** Taxosa Alpha Analytical, Inc. Company 4/23/09 10:48 Date/Time

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

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Report Due By: 5:00 PM On: 07-May-09

WorkOrder: BMIS09042341

Page: Lof L

San Diego, CA 92110 Battelle Memorial Institute 3990 Old Town Ave Suite C-205

Client:

Report Attention Betsy Cutie Shane Walton David Conner (614) 424-4117 x (619) 574-4827 x Phone Number (614) 424-4899 x connerd@battelle.org cutiee@batelle.org waltons@battelle.org **EMail Address**

EDD Required: Yes Sampled by: Client

Cooler Temp

Samples Received 23-Apr-09 Date Printed

Sample ID Client's COC #: 25542 BMI09042341-04A MW-22-2 BMI09042341-03A MW-22-3 BMI09042341-01A MW-22-5 QC Level: DS4 BMI09042341-06A EB-02-04/22/09 BMI09042341-05A MW-22-1 BMI09042341-02A MW-22-4 Sample ID Client DOD QC Required: Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates Job : Matrix Date å Š å å AQ 04/22/09 08:13 G005862/JPL Groundwater Monitoring 04/22/09 09:51 04/22/09 10:50 04/22/09 04/22/09 10:25 04/22/09 08:55 Collection No. of Bottles Alpha Sub 6 თ G G G 0 0 0 0 0 TAT 6 6 6 5 6 VOC_TIC_ VOC by 524 VOC by 524 Criteria Criteria VOC by 524 VOC by 524 VOC_W Requested Tests Sample Remarks MS/MSD 23-Apr-09

Comments: Logged in by: No security seals. Frozen ice. Temp Blank # 7771 received @ 4 ° C. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Logged in Gen Chem per spreadsheet from sampler: : Colicia Eduasa hatricia **Print Name** Alpha Analytical, Inc. Company

84:01 boyer

Date/Time

BMI09042341-07A TB-02-04/22/09

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04/22/09 00:00

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VOC by 524 VOC by 524 Criteria Criteria

Reno Trip Blank 9/30/08

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6

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

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Name (-ETABLE) TOMPKINS Address 505 KING AVE	Alpha 255 Glend Sparks, N	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	AZ	AZ CA NV WA ID OR OTHER /	Which State? // WA Page #	25542 ge# / of /
Phone Number Fax	Fax (775)	Fax (775) 355-0406	_	Analyses Required	uired /	
Client Name DAUID CONNET	PO.# 2/8013	Job# 605862	2)	8)/4.	\downarrow	Required QC Level?
own AUE C-205	EMail Address		24.	14.0 32 32	2.0	<u>"</u> <u>"</u>
ELO, CA 92110	Phone # 6/9-726-73//	Fax #	(5,1,2	77 (29 (3) (3) (60) (60)	EDD / EDF? YES	DF? YESNO
Matrix* Sampled by	Report Attention	Total and type of	Siene	ay-	Global ID #	
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below	I ATOTALS	15/ C / S 3/ 07		REMARKS
0813/126/10 10 BM109042341-01	Hw-22-5	7	× ×	$\times \times \times $		
	May-22-4	10			M5/W5D	D
95 7 -03	MW-22-3	7				
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ADDITIONAL INSTRUCTIONS:		-	-			
4						
Signature	Print Name		Company		Date	Time
Retriquished by	Clase Brown	1	16#	CCO_	Yorlog	1300
Relinquished by Relinquished b	Katricia Eduosa		Apha		4/23/09	10:48
Received by						
Relinquished by						
Received by						

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

*Key: AQ - Aqueous

SO - Soil

WA - Waste

OT - Other

AR - Air

**: L-Liter

V-Voa

S-Soil Jar

0-Orbo

T-Tedlar

B-Brass

P-Plastic

OT-Other



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

Date: 07-May-09

David Conner

Battelle Memorial Institute

3990 Old Town Ave

San Diego, CA 92110

(818) 393-2808

Suite C-205

CASE NARRATIVE

Project:

G005862/JPL Groundwater Monitoring

Work Order:

BMI09042440

Cooler Temp:

4 °C

Alpha's Sample ID	Client's Sample ID	Matrix	
09042440-01A	MW-24-5	Aqueous	
09042440-02A	MW-24-4	Aqueous	
09042440-03A	MW-24-3	Aqueous	
09042440-04A	MW-24-2	Aqueous	
09042440-05A	MW-24-1	Aqueous	
09042440-06A	DUPE-01-2Q09	Aqueous	
09042440-07A	DUPE-02-2Q09	Aqueous	
09042440-08A	EB-03-4/23/09	Aqueous	
09042440-09A	TB-03-4/23/09	Aqueous	

Manually Integrated Analytes

Manually Integrated Amar	100	
Test Reference	<u>Analyte</u>	
EPA Method 314.0	Perchlorate	
	Test Reference EPA Method 314.0 EPA Method 314.0 EPA Method 314.0	EPA Method 314.0 Perchlorate EPA Method 314.0 Perchlorate EPA Method 314.0 Perchlorate

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Saulner

Walter Hirihow



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/24/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID: MW-24-5	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 08:45	04/24/09 11:04
Lab ID: BMI09042440-01A	Nitrate (NO3) - N	1.2	0.25 mg/L	04/23/09 08:45	04/24/09 11:04
Client ID: MW-24-4	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 09:45	04/24/09 11:22
Lab ID: BMI09042440-02A	Nitrate (NO3) - N	0.35	0.25 mg/L	04/23/09 09:45	04/24/09 11:22
Client ID: MW-24-3	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 10:48	04/24/09 12:18
Lab ID: BMI09042440-03A	Nitrate (NO3) - N	ND	0.25 mg/L	04/23/09 10:48	04/24/09 12:18
Client ID: MW-24-2	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 12:00	04/24/09 12:36
Lab ID: BMI09042440-04A	Nitrate (NO3) - N	2.0	0.25 mg/L	04/23/09 12:00	04/24/09 12:36
Client ID: MW-24-1	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 12:37	04/24/09 12:55
Lab ID: BMI09042440-05A	Nitrate (NO3) - N	1.1	0.25 mg/L	04/23/09 12:37	04/24/09 12:55
Lab 1D . BM109042440-03A	Phosphate, ortho - P	ND	0.25 mg/L	04/23/09 12:37	04/24/09 12:55
Client ID: DUPE-01-2Q09	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 00:00	04/24/09 13:13
Lab ID: BMI09042440-06A	Nitrate (NO3) - N	ND	0.25 mg/L	04/23/09 00:00	04/24/09 13:13
Client ID: DUPE-02-2Q09	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 00:00	04/24/09 14:09
Lab ID: BMI09042440-07A	Nitrate (NO3) - N	1.1	0.25 mg/L	04/23/09 00:00	04/24/09 14:09
Lao ID . DIVII07042440-0/A	Phosphate, ortho - P	ND	0.25 mg/L	04/23/09 00:00	04/24/09 14:09
Client ID: EB-03-4/23/09	Nitrite (NO2) - N	ND	0.25 mg/L	04/23/09 12:51	04/24/09 14:27
Lab ID: BMI09042440-08A	Nitrate (NO3) - N	ND	0.25 mg/L	04/23/09 12:51	04/24/09 14:27

ND = Not Detected

Roger Scholl Kandy Soulun Walter Hima

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/7/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/24/09

Job#: G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

		Parameter	Concentration F	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-24-5					
Lab ID:	BMI09042440-01A	Chloride	9.3	0.50 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	21	0.50 mg/L	04/23/09	04/24/09
Client ID:	MW-24-4					
Lab ID:	BMI09042440-02A	Chloride	18	0.50 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	2.9	0.50 mg/L	04/23/09	04/24/09
Client ID:	MW-24-3					
Lab ID:	BMI09042440-03A	Chloride	14	0.50 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	12	0.50 mg/L	04/23/09	04/24/09
Client ID:	MW-24-2					
Lab ID:	BMI09042440-04A	Chloride	44	0.50 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	25	0.50 mg/L	04/23/09	04/24/09
Client ID:	MW-24-1					
Lab ID:	BMI09042440-05A	Chloride	66	2.5 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	47	0.50 mg/L	04/23/09	04/24/09
Client ID:	DUPE-01-2Q09					
Lab ID:	BMI09042440-06A	Chloride	14	0.50 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	12	0.50 mg/L	04/23/09	04/24/09
Client ID:	DUPE-02-2Q09					
Lab ID:	BMI09042440-07A	Chloride	66	2.5 mg/L	04/23/09	04/28/09
		Sulfate (SO4)	47	0.50 mg/L	04/23/09	04/24/09
Client ID:	EB-03-4/23/09					
Lab ID:	BMI09042440-08A	Chloride	ND	0.50 mg/L	04/23/09	04/24/09
		Sulfate (SO4)	ND	0.50 mg/L	04/23/09	04/24/09

ND = Not Detected

Toger Scholl Kandy Saulner Walter Hinchman, Quality Assurance Officer

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/7/09 Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner

Phone: (818) 393-2808

Fax:

(614) 458-6641

Date Received: 04/24/09

Job#:

G005862/JPL Groundwater Monitoring

Perchlorate by Ion Chromatography EPA Method 314.0

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID: Lab ID:	MW-24-5 BMI09042440-01A	Perchlorate	ND	1.00 μg/L	04/23/09	04/28/09
Client ID : Lab ID :	MW-24-4 BMI09042440-02A	Perchlorate	ND	1.00 μg/L	04/23/09	05/07/09
Client ID : Lab ID :	MW-24-3 BMI09042440-03A	Perchlorate	ND	1.00 μg/L	04/23/09	04/28/09
Client ID : Lab ID :	MW-24-2 BMI09042440-04A	Perchlorate	12.9	1.00 μg/L	04/23/09	04/28/09
Client ID : Lab ID :	MW-24-1 BMI09042440-05A	Perchlorate	3.62	1.00 μg/L	04/23/09	04/28/09
Client ID : Lab ID :	DUPE-01-2Q09 BMI09042440-06A	Perchlorate	ND	1.00 μg/L	04/23/09	04/28/09
Client ID : Lab ID :	DUPE-02-2Q09 BMI09042440-07A	Perchlorate	3.97	1.00 μg/L	04/23/09	04/28/09
Client ID: Lab ID:	EB-03-4/23/09 BMI09042440-08A	Perchlorate	ND	1.00 µg/L	04/23/09	04/28/09

ND = Not Detected

Roger Scholl Kundys

Walter Hinkman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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5/7/09



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (619) 574-4827

Fax: (614) 458-6641 Date Received: 04/24/09

Job#: G005862/JPL Groundwater Monitoring

Alkalinity SM2320B

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-24-5					
Lab ID:	BMI09042440-01A	Alkalinity, Bicarbonate (As CaCO3)	190	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	190	10 mg/L	04/23/09	04/27/09
Client ID:	MW-24-4					
Lab ID:	BMI09042440-02A	Alkalinity, Bicarbonate (As CaCO3)	37	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	85	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	120	10 mg/L	04/23/09	04/27/09
Client ID:	MW-24-3					
Lab ID:	BMI09042440-03A	Alkalinity, Bicarbonate (As CaCO3)	170	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	170	10 mg/L	04/23/09	04/27/09
Client ID:	MW-24-2					
Lab ID:	BMI09042440-04A	Alkalinity, Bicarbonate (As CaCO3)	180	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	180	10 mg/L	04/23/09	04/27/09
Client ID:	MW-24-1					
Lab ID:	BMI09042440-05A	Alkalinity, Bicarbonate (As CaCO3)	190	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	190	10 mg/L	04/23/09	04/27/09
Client ID:	DUPE-01-2Q09					
Lab ID:	BMI09042440-06A	Alkalinity, Bicarbonate (As CaCO3)	170	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	170	10 mg/L	04/23/09	04/27/09
Client ID:	DUPE-02-2Q09					
Lab ID:	BMI09042440-07A	Alkalinity, Bicarbonate (As CaCO3)	190	10 mg/L	04/23/09	04/27/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/27/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	190	10 mg/L	04/23/09	04/27/09
Client ID:	EB-03-4/23/09					
Lab ID:	BMI09042440-08A	Alkalinity, Bicarbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/28/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/23/09	04/28/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	ND	10 mg/L	04/23/09	04/28/09



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ND = Not Detected

Roger Scholl Kundy Saulma Walter Hinchman, Quality Assurance Officer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner

Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/24/09

Job#: G005862/JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8

		Parameter	Concentration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID:	MW-24-5					
Lab ID:	BMI09042440-01A	Sodium (Na)	41	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	9.6	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	2.0	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	40	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	0.20	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	0.0032	0.0020 mg/L	04/23/09	05/01/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09
Client ID:	MW-24-4					
Lab ID:	BMI09042440-02A	Sodium (Na)	40	0.50 mg/L	04/23/09	05/01/09
		Magnesium (Mg)	11	0.50 mg/L	04/23/09	05/01/09
		Potassium (K)	2.1	0.50 mg/L	04/23/09	05/01/09
		Calcium (Ca)	25	0.50 mg/L	04/23/09	05/01/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	05/01/09
		Iron (Fe)	0.26	0.10 mg/L	04/23/09	05/01/09
		Arsenic (As)	0.0033	0.0020 mg/L	04/23/09	05/01/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	05/01/09
Client ID:	MW-24-3					
Lab ID:	BMI09042440-03A	Sodium (Na)	41	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	11	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	2.1	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	27	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	0.20	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	0.0030	0.0020 mg/L	04/23/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09
Client ID:	MW-24-2					
Lab ID:	BMI09042440-04A	Sodium (Na)	45	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	14	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	3.2	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	49	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	0.30	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	0.0024	0.0020 mg/L	04/23/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09



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Client ID:	MW-24-1					
Lab ID:	BMI09042440-05A	Sodium (Na)	30	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	24	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	3.7	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	84	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	0.57	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/23/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09
Client ID:	DUPE-01-2Q09					
Lab ID:	BMI09042440-06A	Sodium (Na)	41	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	11	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	2.2	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	27	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	0.18	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	0.0035	0.0020 mg/L	04/23/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09
Client ID:	DUPE-02-2Q09					
Lab ID:	BMI09042440-07A	Sodium (Na)	30	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	25	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	3.8	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	87	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	0.56	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/23/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09
Client ID:	EB-03-4/23/09					
Lab ID:	BMI09042440-08A	Sodium (Na)	ND	0.50 mg/L	04/23/09	04/27/09
		Magnesium (Mg)	ND	0.50 mg/L	04/23/09	04/27/09
		Potassium (K)	ND	0.50 mg/L	04/23/09	04/27/09
		Calcium (Ca)	ND	0.50 mg/L	04/23/09	04/27/09
		Chromium (Cr)	ND	0.0050 mg/L	04/23/09	04/27/09
		Iron (Fe)	ND	0.10 mg/L	04/23/09	04/27/09
		Arsenic (As)	ND	0.0020 mg/L	04/23/09	04/27/09
		Lead (Pb)	ND	0.0050 mg/L	04/23/09	04/27/09

ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Job#:

David Conner Attn: Phone: (619) 574-4827 (614) 458-6641

Date Received: 04/24/09

G005862/JPL Groundwater Monitoring

pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID: MW-24-5	рН	8.1	1.7 pH Units	04/23/09 08:45	04/24/09 11:35
Lab ID: BMI09042440-01A	pH - Temperature	15	1.0 °C	04/23/09 08:45	04/24/09 11:35
Client ID: MW-24-4	pН	9.3	1.7 pH Units	04/23/09 09:45	04/24/09 11:39
Lab ID: BMI09042440-02A	pH - Temperature	15	1.0 °C	04/23/09 09:45	04/24/09 11:39
Client ID: MW-24-3	рН	8.5	1.7 pH Units	04/23/09 10:48	04/24/09 11:43
Lab ID: BMI09042440-03A	pH - Temperature	15	1.0 °C	04/23/09 10:48	04/24/09 11:43
Client ID: MW-24-2	pН	7.9	1.7 pH Units	04/23/09 12:00	04/24/09 11:47
Lab ID: BMI09042440-04A	pH - Temperature	15	1.0 °C	04/23/09 12:00	04/24/09 11:47
Client ID: MW-24-1	pН	7.4	1.7 pH Units	04/23/09 12:37	04/24/09 11:50
Lab ID: BMI09042440-05A	pH - Temperature	15	1.0 °C	04/23/09 12:37	04/24/09 11:50
Client ID: DUPE-01-2Q09	рН	8.4	1.7 pH Units	04/23/09 00:00	04/24/09 11:54
Lab ID: BMI09042440-06A	pH - Temperature	15	1.0 °C	04/23/09 00:00	04/24/09 11:54
Client ID: DUPE-02-2Q09	рН	7.2	1.7 pH Units	04/23/09 00:00	04/24/09 11:58
Lab ID: BMI09042440-07A	pH - Temperature	15	1.0 °C	04/23/09 00:00	04/24/09 11:58
Client ID : EB-03-4/23/09	pH	6.1	1.7 pH Units	04/23/09 12:51	04/24/09 12:02
Lab ID: BMI09042440-08A	pH - Temperature	15	1.0 °C	04/23/09 12:51	04/24/09 12:02

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: **David Conner**

Phone: (818) 393-2808 (614) 458-6641 Fax:

Date Received: 04/24/09

G005862/JPL Groundwater Monitoring Job#:

Total Dissolved Solids (TDS)

SM2540C

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-24-5 BMI09042440-01A	Solids, Total Dissolved (TDS)	210	10 mg/L	04/23/09	04/29/09
Client ID : Lab ID :	MW-24-4 BMI09042440-02A	Solids, Total Dissolved (TDS)	130	10 mg/L	04/23/09	04/28/09
Client ID : Lab ID :	MW-24-3 BMI09042440-03A	Solids, Total Dissolved (TDS)	190	10 mg/L	04/23/09	04/28/09
Client ID : Lab ID :	MW-24-2 BMI09042440-04A	Solids, Total Dissolved (TDS)	280	10 mg/L	04/23/09	04/28/09
Client ID : Lab ID :	MW-24-1 BMI09042440-05A	Solids, Total Dissolved (TDS)	330	10 mg/L	04/23/09	04/28/09
Client ID: Lab ID:	DUPE-01-2Q09 BMI09042440-06A	Solids, Total Dissolved (TDS)	210	10 mg/L	04/23/09	04/30/09
Client ID: Lab ID:	DUPE-02-2Q09 BMI09042440-07A	Solids, Total Dissolved (TDS)	360	10 mg/L	04/23/09	04/28/09
Client ID: Lab ID:	EB-03-4/23/09 BMI09042440-08A	Solids, Total Dissolved (TDS)	ND	10 mg/L	04/23/09	04/29/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808

Fax: (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	MW-24-5 BMI09042440-01A	*** None Found ***	ND	2.0 μg/L	04/24/09	04/23/09	04/30/09
Client ID: Lab ID:	MW-24-4 BMI09042440-02A	Sulfur dioxide	28	2.0 μg/L	04/24/09	04/23/09	04/30/09
Client ID: Lab ID:	MW-24-3 BMI09042440-03A	Sulfur dioxide	18	2.0 μg/L	04/24/09	04/23/09	04/30/09
Client ID: Lab ID:	MW-24-2 BMI09042440-04A	Sulfur dioxide	15	2.0 µg/L	04/24/09	04/23/09	04/30/09
Client ID : Lab ID :	MW-24-1 BMI09042440-05A	Sulfur dioxide	14	2.0 μg/L	04/24/09	04/23/09	04/30/09
Client ID: Lab ID:	DUPE-01-2Q09 BMI09042440-06A	Sulfur dioxide	8.9	2.0 µg/L	04/24/09	04/23/09	04/30/09
Client ID : Lab ID :	DUPE-02-2Q09 BMI09042440-07A	Sulfur dioxide	12	2.0 µg/L	04/24/09	04/23/09	04/30/09
Client ID: Lab ID:	EB-03-4/23/09 BMI09042440-08A	Tertiary Butyl Alcohol (TBA)	22	10 μg/L	04/24/09	04/23/09	04/30/09
Client ID :	TB-03-4/23/09 BMI09042440-09A	2-Methyl-1-propene *** None Found ***	4.1 ND	2.0 μg/L 2.0 μg/L	04/24/09	04/23/09	04/30/09
	2	None i build	ND	2.0 μg/L	0-1/2-1/07	01/23/07	01/30/07

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

5/7/09

Report Date

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: Phone: Fax:

David Conner (818) 393-2808 (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-01A

Client I.D. Number: MW-24-5

Sampled: 04/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	. ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC)	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	106	(70-130)	%RE
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	101	(70-130)	%RE
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%RE
32	1,3-Dichloropropane	ND	0.50	μg/L			•		
33	Dibromochloromethane	ND	0.50	μg/L					
0.4	4.0 Dibarras Alberta (EDD)								

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

1,2-Dibromoethane (EDB)

Tetrachloroethene

Roger Scholl Kandy Saulner

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

5/13/09

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μg/L

μg/L

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: Phone:

David Conner (818) 393-2808

Fax:

(614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-02A

Sampled: 04/23/09 Received: 04/24/09

Client I.D. Number: MW-24-4

Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	110	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			1	, ,	
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
		1		-					

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

35 Tetrachloroethene

Kandy Saulmer Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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5/13/09

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-03A

Client I.D. Number: MW-24-3

Attn: David Conner

Phone: (818) 393-2808 Fax:

(614) 458-6641

Sampled: 04/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	110	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			1		
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulmer Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

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

5/13/09 **Report Date**



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-04A

Client I.D. Number: MW-24-2

Attn: David Conner Phone: (818) 393-2808 Fax:

(614) 458-6641

Sampled: 04/23/09 Received: 04/24/09

Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	108	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			1	,	
33	Dibromochloromethane	ND	0.50	ua/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulmer Roger Scholl Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

1.0

0.50

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5/13/09

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110 G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-05A

Client I.D. Number: MW-24-1

Attn: David Conner

Phone: (818) 393-2808 Fax:

(614) 458-6641

Sampled: 04/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	1.3	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	. ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	108	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			,		
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
0.5	T-1			, -					

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

35 Tetrachloroethene

Kandy Saulmer Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

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5/13/09

Report Date Page 1 of 1



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: Phone: **David Conner** (818) 393-2808

Fax:

(614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-06A Client I.D. Number: DUPE-01-2Q09

Sampled: 04/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
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26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	111	(70-130)	%REC
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33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
0.5	-	1		. •					

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

Tetrachloroethene

Kandg Saulner Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/13/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-07A

Client I.D. Number: DUPE-02-2Q09

Attn: **David Conner** Phone: (818) 393-2808

Fax: (614) 458-6641

Sampled: 04/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
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5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
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11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
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14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	1.6	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
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20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC)	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	111	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			,	• •	
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
0.5	T-4			. •					

Note: Analysis conducted using EPA Method 524.2 criteria.

Roger Scholl

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

Tetrachloroethene

Kandy Saulner Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/13/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042440-08A Client I.D. Number: EB-03-4/23/09

Attn: David Conner Phone: (818) 393-2808

Fax: (614) 458-6641

Sampled: 04/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND ·	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	103	(70-130)	%RE
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	102	(70-130)	%RE
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%RE
32	1,3-Dichloropropane	ND	0.50	μg/L			1	, ,	
33	Dibromochloromethane	ND	0.50	μg/L					
~ 4	4.0.035(500)								

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND

ND = Not Detected

34 1,2-Dibromoethane (EDB)

Tetrachloroethene

Roger Scholl Kandy Saulner Walter Hinchman, Quality Assurance Officer

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

μg/L

μg/L

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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5/13/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Phone: Fax:

David Conner (818) 393-2808 (614) 458-6641

San Diego, CA 92110

Job#: G005862/JPL Groundwater Monitoring

Sampled: 04/23/09

Alpha Analytical Number: BMI09042440-09A Client I.D. Number: TB-03-4/23/09

Received: 04/24/09 Analyzed: 04/30/09

Volatile Organics by GC/MS

-	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	. ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1.2.4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1.2.3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	102	(70-130)	%RE
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	104	(70-130)	%RE
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	101	(70-130)	%RE
32	1,3-Dichloropropane	ND	0.50	μg/L				,,	
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 5/7/09, due to the removal of the Failed CV footnote, due to lab error.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Roger Scholl Kandy Saulur

ND

Walter Hirihum

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

μg/L

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/13/09

Report Date



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

VOC Sample Preservation Report

Work Order: BMI09042440 Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
09042440-01A	MW-24-5	Aqueous	2	
09042440-02A	MW-24-4	Aqueous	2	
09042440-03A	MW-24-3	Aqueous	2	
09042440-04A	MW-24-2	Aqueous	2	
09042440-05A	MW-24-1	Aqueous	2	
09042440-06A	DUPE-01-2Q09	Aqueous	2	
09042440-07A	DUPE-02-2Q09	Aqueous	2	
09042440-08A	EB-03-4/23/09	Aqueous	2	
09042440-09A	TB-03-4/23/09	Aqueous	2	

5/7/09 Report Date

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Client:

Report Attention

Phone Number

David Conner

Shane Walton Betsy Cutie

> (614) 424-4117 x (619) 574-4827 x

> > connerd@battelle.org

EMail Address

(614) 424-4899 x

cutiee@batelle.org waltons@battelle.org

Battelle Memorial Institute Suite C-205 3990 Old Town Ave

San Diego, CA 92110

Client's COC #: 25561 218013

Page: 1 of

WorkOrder: BMIS09042440

Report Due By: 5:00 PM On: 08-May-09

EDD Required: Yes

Cooler Temp

Sampled by: Client

Samples Received 24-Apr-09 Date Printed 24-Apr-09

QC Level: DS4 = DOD QC Required : Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates

Job: G005862/JPL Groundwater Monitoring

The second secon										Requested Tests	ed Tests				
Alpha	Client		Collection	No. of	No. of Bottles	•	300_0(A)_	300_0(B)_	300_0(C)_	314_W	ALKALINIT METALS_D	METALS_D	PH_W	TDS	446
Sample ID	Sample ID	Mat	Matrix Date	Alpha	Sub	TAT	*	٤			Y_W	*			Sample Remarks
BMI09042440-01A	MW-24-5	AQ	04/23/09 08:45	5	0	10	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042440-02A	MW-24-4	ΑQ	04/23/09 09:45	10	0	10	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	рН	TDS	MS/MSD
BMI09042440-03A	MW-24-3	ĄQ	04/23/09 10:48	10	0	10	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	pН	TDS	MS/MSD
BMI09042440-04A	MW-24-2	Ą	04/23/09 12:00	Ŋ	0	10	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	рН	TDS	
BMI09042440-05A	MW-24-1	Ą	04/23/09 12:37	თ	0	10	NO2, NO3, PO4, SO4 CL	NO2, NO3, PO4, SO4 CL	NO2, NO3, NO2, NO3, PO4, SO4 CL PO4, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042440-06A	DUPE-01-2Q09	AQ	04/23/09 00:00	5	0	10	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042440-07A	DUPE-02-2Q09	AQ	04/23/09 00:00	5	0	10	NO2, NO3, PO4, SO4 CL	NO2, NO3, PO4, SO4 CI	NO2, NO3, NO2, NO3, PO4, SO4 CL PO4, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042440-08A	EB-03-4/23/09	Ą	04/23/09 12:51	Ŋ	0	10	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	NO2, NO3, SO4 CL	Perchlorate	Alk (Bicarb, Carb, Total)	Cr, Pb, As, Na, K, Ca, Mg, Fe	pН	TDS	
BMI09042440-09A	TB-03-4/23/09	- AQ	04/23/09 00:00	_	0	10									Reno Trip Blank 03/16/09

Comments:

No security seals. Frozen ice. Temp Blank # 8691 received @ 4 ° C. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Logged in Gen Chem per spreadsheet from sampler.:

Logged in by:	
Jatiera Ediasa	Signatury
hatricia Edvosa	Print Name
Alpha Analytical, Inc.	Company
10:01 Palticly	Date/Time

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

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Battelle Memorial Institute San Diego, CA 92110 3990 Old Town Ave Suite C-205

Client:

Report Attention Betsy Cutie Shane Walton David Conner Phone Number (614) 424-4899 x (614) 424-4117 x (619) 574-4827 x connerd@battelle.org cutiee@batelle.org waltons@battelle.org **EMail Address**

Page: Sof

WorkOrder: BMIS09042440

Report Due By: 5:00 PM On: 08-May-09

EDD Required: Yes

Sampled by: Client

Cooler Temp

Samples Received 24-Apr-09 Date Printed

Sample ID Client's COC #: 25561 BMI09042440-09A BMI09042440-08A EB-03-4/23/09 BMI09042440-06A DUPE-01-2Q09 BMI09042440-05A MW-24-1 BMI09042440-04A BMI09042440-03A MW-24-3 BMI09042440-01A MW-24-5 QC Level: DS4 BMI09042440-07A BMI09042440-02A MW-24-2 TB-03-4/23/09 DUPE-02-2Q09 MW-24-4 Sample ID Client DOD QC Required : Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates Job: G005862/JPL Groundwater Monitoring AQ 04/23/09 08:45 Matrix Date Š å å å å å å å 04/23/09 00:00 04/23/09 12:51 04/23/09 00:00 04/23/09 00:00 04/23/09 12:37 04/23/09 12:00 04/23/09 10:48 04/23/09 09:45 Collection No. of Bottles Alpha Sub G 6 6 G S 5 S S 0 0 0 0 0 0 0 0 TAT 6 6 6 5 6 5 5 5 6 VOC by 524 VOC by 524 Criteria Criteria VOC by 524 VOC by 524 Criteria Criteria VOC by 524 VOC by 524 Criteria Criteria VOC_TIC_ VOC_W VOC by 524 VOC by 524 Criteria Criteria VOC by 524 | VOC by 524 VOC by 524 VOC by 524 Criteria Criteria Criteria Criteria Requested Tests Reno Trip Blank 03/16/09 Sample Remarks MS/MSD MS/MSD 24-Apr-09

Comments: No security seals. Frozen ice. Temp Blank # 8691 received @ 4 ° C. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD). Logged in Gen Chem per spreadsheet from sampler : tatuera Columna hatrida t divosa Alpha Analytical, Inc. Company 10:01 bothely

Date/Time

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

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Logged in by:

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Name _ City, State, Zip Colu Address 505 KING AUE Billing Information: CERLOLD TOMPHINS

Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

D	AZ	Samples
OR	CAX	Collected From
OTHER	N N	d From
	WA	Which St
Page		State?
*		27.0
of /	· .	→ 2

City, State, Zip Phone Number		Phone Number Fax Fax	Fa	Phone (775) 355-1044 Fax (775) 355-0406				Ana	Analyses Required	Req	uired		
Client Name	ENDA	Client Name DAVID CONNER	P.O.# 218013	Job# 6005862	62	7	24	, K,					Required QC Level?
Address 399 0	201	Address 990 & TAW ANE, C-205	EMail Address			7/	~~; ~~;	7.8 7.0	4.0	300	:\! 300		" (II) IV
City, State, Zip	NECO	City, State, Zipyero, CA 92110	Phone #619-726-7311	Fax #	44.	1	(2	Fe)	3/	(G.)	Aric L	υ / _{ΕDD/1}	EDD/EDF? YESNO
Time Date Matrix* Sampled by	Matrix*	Sampled by	Report Attention		Total and type of	DC 5	72 E	19,	24-		~> PI ~_	Global ID #	#
Sampled Sample	Below	Lab ID Number (Use Only)	Sample Description	TAT Field Filtered	** See below	4	Drs.	کر کر	C/ ₀	50. 310.		1	REMARKS
245 A/23	M AQ	0815 1913 / AQ BM109042440-01 MW-24-5	MW-24-5		4	×	X	<u> </u>	×	, i			
15160	-	-02	-02 MW-24-4		9	×	X	X	X			N51 N5D	\$\frac{1}{2}
8401		-03	-03 MW-24-3		10	×	X		\ \			~ s/x	1 MSD
na		-04	-O4 MW-24-2		2	X	X	X	×	``			
/237		-Or.	-05 MW-24-1		7	X	X	X	Λ λ	X	· ·		
١		-06	-DL DUPE-01 - 209		4	X	X	X	X			DUPLICATE	ICATE
١		-07	-07 DARE-02 - 2009			X	X	×	×	X		DUPLICATE	COTE
1251		-08	-08 23-03 -4/23/09		1	X	X	_	X			EDUIPS	EQUIPMENT BLANK
1	_	PQ ~	-09 773-03-4/23/09		1-	X						Thup;	TUP BLANK
										_			
						_							
-													

ADDITIONAL INSTRUCTIONS:

*Key: AQ - Aqueous SO	Received by	Relinquished by	Received by	Relinquished by	Received by	Relinquished by	Signature	
SO - Soil WA				(a) Edu			
WA - Waste					\$			
OT - Other				(atricio	24956- Broken	PI	
AR - Air					Ō,	- Brail	Print Name	
**: L-Liter					Edvosa	Sal		
V-Voa								
S-Soil Jar O-Orbo T-Tedlar B-Brass				4	PZ	13/6		
O-Orbo					Þ	4	Company	
T-Tedlar								
					Ý	~		
P-Plastic OT-Other				-	124/09	4/23/09	Date ,	
OT-Other				•	D:0	1330	Time	

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



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

Date: 30-Apr-09 David Conner

Battelle Memorial Institute

3990 Old Town Ave

San Diego, CA 92110 (818) 393-2808

Suite C-205

CASE NARRATIVE

Project:

G005862/JPL Groundwater Monitoring

Work Order:

BMI09042801

Cooler Temp:

4°C

Alpha's Sample ID	Client's Sample ID	Matrix
09042801-01A	MW-3-5	Aqueous
09042801-02A	MW-3-4	Aqueous
09042801-03A	MW-3-3	Aqueous
09042801-04A	MW-3-2	Aqueous
09042801-05A	MW-3-1	Aqueous
09042801-06A	EB-04-4/27/09	Aqueous
09042801-07A	TB-04-4/27/09	Aqueous

Manually Integrated Analytes

Manually Integrated Analytes		
Alpha's Sample ID	Test Reference	<u>Analyte</u>
09042801-01A	EPA Method 300.0 / 9056	Chloride
09042801-02A	EPA Method 300.0 / 9056	Chloride
09042801-02A	EPA Method 314.0	Perchlorate
09042801-03A	EPA Method 300.0 / 9056	Chloride
09042801-04A	EPA Method 300.0 / 9056	Chloride
09042801-04A	EPA Method 314.0	Perchlorate
09042801-05A	EPA Method 300.0 / 9056	Chloride
09042801-05A	EPA Method 314.0	Perchlorate
09042801-06A	EPA Method 300.0 / 9056	Nitrate (NO3) - N
09042801-06A	EPA Method 300.0 / 9056	Nitrite (NO2) - N

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Saulner

Walter Hinkow



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/28/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID: MW-3-5	Nitrite (NO2) - N	ND	0.25 mg/L	04/27/09 07:50	04/28/09 11:40
Lab ID: BMI09042801-01A	Nitrate (NO3) - N	ND	0.25 mg/L	04/27/09 07:50	04/28/09 11:40
Client ID: MW-3-4	Nitrite (NO2) - N	ND	0.25 mg/L	04/27/09 08:20	04/28/09 11:59
Lab ID: BMI09042801-02A	Nitrate (NO3) - N	ND	0.25 mg/L	04/27/09 08:20	04/28/09 11:59
Client ID: MW-3-3	Nitrite (NO2) - N	ND	0.25 mg/L	04/27/09 08:50	04/28/09 12:17
Lab ID: BMI09042801-03A	Nitrate (NO3) - N	ND	0.25 mg/L	04/27/09 08:50	04/28/09 12:17
Client ID: MW-3-2	Nitrite (NO2) - N	ND	0.25 mg/L	04/27/09 09:22	04/28/09 12:36
Lab ID: BMI09042801-04A	Nitrate (NO3) - N	2.0	0.25 mg/L	04/27/09 09:22	04/28/09 12:36
Client ID: MW-3-1	Nitrite (NO2) - N	ND	0.25 mg/L	04/27/09 09:54	04/28/09 12:54
Lab ID: BMI09042801-05A	Nitrate (NO3) - N	1.4	0.25 mg/L	04/27/09 09:54	04/28/09 12:54
Client ID : EB-04-4/27/09	Nitrite (NO2) - N	ND	0.25 mg/L	04/27/09 09:40	04/28/09 13:13
Lab ID: BMI09042801-06A	Nitrate (NO3) - N	ND	0.25 mg/L	04/27/09 09:40	04/28/09 13:13

ND = Not Detected

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/11/09



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808

Fax: (614) 458-6641

Date Received: 04/28/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-3-5					
Lab ID:	BMI09042801-01A	Chloride	14	0.50 mg/L	04/27/09	04/28/09
		Sulfate (SO4)	ND	0.50 mg/L	04/27/09	04/28/09
Client ID:	MW-3-4					
Lab ID:	BMI09042801-02A	Chloride	14	0.50 mg/L	04/27/09	04/28/09
		Sulfate (SO4)	1.8	0.50 mg/L	04/27/09	04/28/09
Client ID:	MW-3-3					
Lab ID:	BMI09042801-03A	Chloride	23	0.50 mg/L	04/27/09	04/28/09
		Sulfate (SO4)	29	0.50 mg/L	04/27/09	04/28/09
Client ID:	MW-3-2					
Lab ID:	BMI09042801-04A	Chloride	35	0.50 mg/L	04/27/09	04/28/09
Euro ID .	DM107042001-04A	Sulfate (SO4)	49	0.50 mg/L	04/27/09	04/28/09
		Surface (504)	49	0.50 mg/L	04/2//07	04/20/09
Client ID:	MW-3-1					
Lab ID:	BMI09042801-05A	Chloride	25	0.50 mg/L	04/27/09	04/28/09
		Sulfate (SO4)	49	0.50 mg/L	04/27/09	04/28/09
Client ID:	EB-04-4/27/09					
Lab ID:	BMI09042801-06A	Chloride	ND	0.50 mg/L	04/27/09	04/28/09
		Sulfate (SO4)	ND	0.50 mg/L	04/27/09	04/28/09

ND = Not Detected

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5/41/09 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/28/09

Job#:

G005862/JPL Groundwater Monitoring

Perchlorate by Ion Chromatography EPA Method 314.0

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID: Lab ID:	MW-3-5 BMI09042801-01A	Perchlorate	ND	1.00 µg/L	04/27/09	04/28/09
Client ID : Lab ID :	MW-3-4 BMI09042801-02A	Perchlorate	ND	1.00 μg/L	04/27/09	04/28/09
Client ID : Lab ID :	MW-3-3 BMI09042801-03A	Perchlorate	ND	1.00 μg/L	04/27/09	04/28/09
Client ID: Lab ID:	MW-3-2 BMI09042801-04A	Perchlorate	121	5.00 μg/L	04/27/09	04/28/09
Client ID: Lab ID:	MW-3-1 BMI09042801-05A	Perchlorate	ND	1.00 µg/L	04/27/09	04/28/09
Client ID: Lab ID:	EB-04-4/27/09 BMI09042801-06A	Perchlorate	ND	1.00 µg/L	04/27/09	04/28/09

ND = Not Detected

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5/11/09 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn:

David Conner

Phone:

(818) 393-2808

Fax:

(614) 458-6641

Date Received: 04/28/09

Job#:

G005862/JPL Groundwater Monitoring

Alkalinity

SM2320B

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-3-5					
Lab ID:	BMI09042801-01A	Alkalinity, Bicarbonate (As CaCO3)	220	10 mg/L	04/27/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/27/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	220	10 mg/L	04/27/09	05/05/09
Client ID:	MW-3-4					
Lab ID:	BMI09042801-02A	Alkalinity, Bicarbonate (As CaCO3)	210	10 mg/L	04/27/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/27/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	210	10 mg/L	04/27/09	05/05/09
Client ID:	MW-3-3					
Lab ID:	BMI09042801-03A	Alkalinity, Bicarbonate (As CaCO3)	160	10 mg/L	04/27/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/27/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	160	10 mg/L	04/27/09	05/05/09
Client ID:	MW-3-2					
Lab ID:	BMI09042801-04A	Alkalinity, Bicarbonate (As CaCO3)	170	10 mg/L	04/27/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/27/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	170	10 mg/L	04/27/09	05/05/09
Client ID:	MW-3-1					
Lab ID:	BMI09042801-05A	Alkalinity, Bicarbonate (As CaCO3)	190	10 mg/L	04/27/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/27/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	190	10 mg/L	04/27/09	05/05/09
Client ID:	EB-04-4/27/09					
Lab ID:	BMI09042801-06A	Alkalinity, Bicarbonate (As CaCO3)	ND	10 mg/L	04/27/09	05/05/09
				•		
		Alkalinity, Total (As CaCO3 at pH 4.5)	ND	10 mg/L	04/27/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5) Alkalinity, Bicarbonate (As CaCO3) Alkalinity, Carbonate (As CaCO3)	ND ND	10 mg/L 10 mg/L 10 mg/L	04/27/09 04/27/09 04/27/09	05/05/09 05/05/09 05/05/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808

Fax: (614) 458-6641

Date Received: 04/28/09

Job#: G005862/JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8

		Parameter	Concentration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID:	MW-3-5					
Lab ID:	BMI09042801-01A	Sodium (Na)	53	0.50 mg/L	04/27/09	04/28/09
		Magnesium (Mg)	11	0.50 mg/L	04/27/09	04/28/09
		Potassium (K)	2.3	0.50 mg/L	04/27/09	04/28/09
		Calcium (Ca)	36	0.50 mg/L	04/27/09	04/28/09
		Chromium (Cr)	ND	0.0050 mg/L	04/27/09	04/28/09
		Iron (Fe)	6.3	0.10 mg/L	04/27/09	04/28/09
		Arsenic (As)	0.0026	0.0020 mg/L	04/27/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/27/09	04/28/09
Client ID:	MW-3-4					
Lab ID:	BMI09042801-02A	Sodium (Na)	47	0.50 mg/L	04/27/09	04/28/09
		Magnesium (Mg)	10	0.50 mg/L	04/27/09	04/28/09
		Potassium (K)	2.0	0.50 mg/L	04/27/09	04/28/09
		Calcium (Ca)	30	0.50 mg/L	04/27/09	04/28/09
		Chromium (Cr)	ND	0.0050 mg/L	04/27/09	04/28/09
		Iron (Fe)	0.68	0.10 mg/L	04/27/09	04/28/09
		Arsenic (As)	0.0022	0.0020 mg/L	04/27/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/27/09	04/28/09
Client ID:	MW-3-3					
Lab ID:	BMI09042801-03A	Sodium (Na)	38	0.50 mg/L	04/27/09	04/28/09
		Magnesium (Mg)	14	0.50 mg/L	04/27/09	04/28/09
		Potassium (K)	2.6	0.50 mg/L	04/27/09	04/28/09
		Calcium (Ca)	32	0.50 mg/L	04/27/09	04/28/09
		Chromium (Cr)	ND	0.0050 mg/L	04/27/09	04/28/09
		Iron (Fe)	0.38	0.10 mg/L	04/27/09	04/28/09
		Arsenic (As)	ND	0.0020 mg/L	04/27/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/27/09	04/28/09
Client ID:	MW-3-2					
Lab ID:	BMI09042801-04A	Sodium (Na)	21	0.50 mg/L	04/27/09	04/28/09
		Magnesium (Mg)	21	0.50 mg/L	04/27/09	04/28/09
		Potassium (K)	2.9	0.50 mg/L	04/27/09	04/28/09
		Calcium (Ca)	61	0.50 mg/L	04/27/09	04/28/09
	•	Chromium (Cr)	ND	0.0050 mg/L	04/27/09	04/28/09
		Iron (Fe)	0.68	0.10 mg/L	04/27/09	04/28/09
		Arsenic (As)	ND	0.0020 mg/L	04/27/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/27/09	04/28/09



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Client ID:	MW-3-1					
Lab ID:	BMI09042801-05A	Sodium (Na)	24	0.50 mg/L	04/27/09	04/28/09
		Magnesium (Mg)	18	0.50 mg/L	04/27/09	04/28/09
		Potassium (K)	2.9	0.50 mg/L	04/27/09	04/28/09
		Calcium (Ca)	59	0.50 mg/L	04/27/09	04/28/09
		Chromium (Cr)	ND	0.0050 mg/L	04/27/09	04/28/09
		Iron (Fe)	0.71	0.10 mg/L	04/27/09	04/28/09
		Arsenic (As)	ND	0.0020 mg/L	04/27/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/27/09	04/28/09
Client ID:	EB-04-4/27/09					
Lab ID:	BMI09042801-06A	Sodium (Na)	ND	0.50 mg/L	04/27/09	04/28/09
		Magnesium (Mg)	ND	0.50 mg/L	04/27/09	04/28/09
		Potassium (K)	ND	0.50 mg/L	04/27/09	04/28/09
		Calcium (Ca)	ND	0.50 mg/L	04/27/09	04/28/09
		Chromium (Cr)	ND	0.0050 mg/L	04/27/09	04/28/09
		Iron (Fe)	ND	0.10 mg/L	04/27/09	04/28/09
		Arsenic (As)	ND	0.0020 mg/L	04/27/09	04/28/09
		Lead (Pb)	ND	0.0050 mg/L	04/27/09	04/28/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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5/11/09



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641 Date Received: 04/28/09

Job#:

G005862/JPL Groundwater Monitoring

pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID: MW-3-5	рН	7.6	1.7 pH Units	04/27/09 07:50	04/28/09 10:44
Lab ID: BMI09042801-01A	pH - Temperature	19	1.0 °C	04/27/09 07:50	04/28/09 10:44
Client ID: MW-3-4	pH	7.9	1.7 pH Units	04/27/09 08:20	04/28/09 10:46
Lab ID: BMI09042801-02A	pH - Temperature	20	1.0 °C	04/27/09 08:20	04/28/09 10:46
Client ID: MW-3-3	рН	8.3	1.7 pH Units	04/27/09 08:50	04/28/09 10:49
Lab ID: BMI09042801-03A	pH - Temperature	19	1.0 °C	04/27/09 08:50	04/28/09 10:49
Client ID: MW-3-2	pH	7.7	1.7 pH Units	04/27/09 09:22	04/28/09 10:54
Lab ID: BMI09042801-04A	pH - Temperature	19	1.0 °C	04/27/09 09:22	04/28/09 10:54
Client ID: MW-3-1	рН	7.6	1.7 pH Units	04/27/09 09:54	04/28/09 11:00
Lab ID: BMI09042801-05A	pH - Temperature	19	1.0 °C	04/27/09 09:54	04/28/09 11:00
Client ID : EB-04-4/27/09	рН	6.2	1.7 pH Units	04/27/09 09:40	04/28/09 11:05
Lab ID: BMI09042801-06A	pH - Temperature	19	1.0 °C	04/27/09 09:40	04/28/09 11:05

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl Kandy Sanbur

Walter Firehour

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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5/11/09



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

David Conner Attn: Phone: (818) 393-2808 (614) 458-6641 Fax:

Date Received: 04/28/09

Job#:

G005862/JPL Groundwater Monitoring

Total Dissolved Solids (TDS)

SM2540C

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-3-5 BMI09042801-01A	Solids, Total Dissolved (TDS)	260	10 mg/L	04/27/09	05/01/09
Client ID: Lab ID:	MW-3-4 BMI09042801-02A	Solids, Total Dissolved (TDS)	230	10 mg/L	04/27/09	05/01/09
Client ID: Lab ID:	MW-3-3 BMI09042801-03A	Solids, Total Dissolved (TDS)	250	10 mg/L	04/27/09	05/01/09
Client ID: Lab ID:	MW-3-2 BMI09042801-04A	Solids, Total Dissolved (TDS)	300	10 mg/L	04/27/09	05/01/09
Client ID: Lab ID:	MW-3-1 BMI09042801-05A	Solids, Total Dissolved (TDS)	270	10 mg/L	04/27/09	05/01/09
Client ID : Lab ID :	EB-04-4/27/09 BMI09042801-06A	Solids, Total Dissolved (TDS)	ND	10 mg/L	04/27/09	05/01/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Job#: G005862/JPL Groundwater Monitoring

Tentatively Identified Compounds - Volatile Organics by GC/MS

		Parameter	Estimated Concentration	Estimated Reporting Limit	Date Received	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-3-5 BMI09042801-01A	*** None Found ***	ND	2.0 μg/L	04/28/09	04/27/09	05/01/09
Client ID : Lab ID :	MW-3-4 BMI09042801-02A	Sulfur dioxide	18	2.0 μg/L	04/28/09	04/27/09	05/01/09
Client ID : Lab ID :	MW-3-3 BMI09042801-03A	Sulfur dioxide	6.4	2.0 μg/L	04/28/09	04/27/09	05/01/09
Client ID : Lab ID :	MW-3-2 BMI09042801-04A	* * * None Found * * *	ND	2.0 μg/L	04/28/09	04/27/09	05/01/09
Client ID : Lab ID :	MW-3-1 BMI09042801-05A	* * * None Found * * *	ND	2.0 μg/L	04/28/09	04/27/09	05/01/09
Client ID : Lab ID :	EB-04-4/27/09 BMI09042801-06A	2-Methyl-1-propene	2.1	2.0 μg/L	04/28/09	04/27/09	05/01/09
Client ID: Lab ID:	TB-04-4/27/09 BMI09042801-07A	* * * None Found * * *	ND	2.0 μg/L	04/28/09	04/27/09	05/01/09

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/11/09 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Phone:

Fax:

David Conner (818) 393-2808 (614) 458-6641

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-01A

Sampled: 04/27/09

Client I.D. Number: MW-3-5

Received: 04/28/09 Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	0.52	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	103	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulner Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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μg/L

5/11/09 **Report Date**



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-02A

Client I.D. Number: MW-3-4

Sampled: 04/27/09 Received: 04/28/09 Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	0.55	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	98	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	104	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	96	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND

ND

ND = Not Detected

33 Dibromochloromethane

35 Tetrachloroethene

34 1,2-Dibromoethane (EDB)

Kandg Saulur Roger Scholl Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

μg/L

μg/L

1.0

0.50

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

5/11/09

Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808 (614) 458-6641 Fax:

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-03A

Client I.D. Number: MW-3-3

Sampled: 04/27/09 Received: 04/28/09 Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	93	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	104	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			,		
33	Dibromochloromethane	ND	0.50	μg/L					
0.4	4.0 Dilement of the control (EDD)	l	17.2	. •					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulmer Roger Scholl Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

ND

ND

5/11/09

Report Date

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1.0

μg/L

μg/L



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-04A

Client I.D. Number: MW-3-2

Sampled: 04/27/09 Received: 04/28/09

Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	. ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	. 1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	0.58	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	0.81	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	100	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	104	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	0.90	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulur Roger Scholl Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

ND

ND

5/11/09 **Report Date**

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

1.0

0.50

μg/L

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



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-05A

Client I.D. Number: MW-3-1

Attn: David Conner Phone: (818) 393-2808 Fax:

(614) 458-6641

Sampled: 04/27/09 Received: 04/28/09 Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCl	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	100	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	104	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulner Roger Scholl

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

1.0

0.50

μg/L

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/11/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-06A

Client I.D. Number: EB-04-4/27/09

Attn: **David Conner**

Phone: (818) 393-2808 Fax:

(614) 458-6641

Sampled: 04/27/09 Received: 04/28/09

Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	89	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	102	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L			•		
33	Dibromochloromethane	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND

ND = Not Detected

34 1,2-Dibromoethane (EDB)

35 Tetrachloroethene

Kandy Saulmer Walter Atrichus Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

1.0

0.50

μg/L

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5/11/09

Report Date



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

ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave

Attn: Phone:

David Conner (818) 393-2808

Fax:

(614) 458-6641

San Diego, CA 92110

G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI09042801-07A

Sampled: 04/27/09

Client I.D. Number: TB-04-4/27/09

Received: 04/28/09 Analyzed: 05/01/09

Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	μg/L
2	Chloromethane	ND	1.0	μg/L	37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.50	μg/L	38	Ethylbenzene	ND	0.50	μg/L
4	Chloroethane	ND	0.50	μg/L	39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.0	μg/L	40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.50	μg/L	41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.50	μg/L	42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.0	μg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	μg/L
9	Freon-113	ND	0.50	μg/L	44	1,2,3-Trichloropropane	ND	1.0	μg/L
10	trans-1,2-Dichloroethene	ND	0.50	μg/L	45	Isopropylbenzene	ND	0.50	μg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.50	μg/L	46	Bromobenzene	ND	0.50	μg/L
12	1,1-Dichloroethane	ND	0.50	μg/L	47	n-Propylbenzene	ND	0.50	μg/L
13	2-Butanone (MEK)	ND	10	μg/L	48	4-Chlorotoluene	ND	0.50	μg/L
14	cis-1,2-Dichloroethene	ND	0.50	μg/L	49	2-Chlorotoluene	ND	0.50	μg/L
15	Bromochloromethane	ND	0.50	μg/L	50	1,3,5-Trimethylbenzene	ND	0.50	μg/L
16	Chloroform	ND	0.50	μg/L	51	tert-Butylbenzene	ND	0.50	μg/L
17	2,2-Dichloropropane	ND	0.50	μg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.50	μg/L	53	sec-Butylbenzene	ND	0.50	μg/L
19	1,1,1-Trichloroethane	ND	0.50	μg/L	54	1,3-Dichlorobenzene	ND	0.50	μg/L
20	1,1-Dichloropropene	ND	0.50	μg/L	55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.50	μg/L	56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.50	μg/L	57	1,2-Dichlorobenzene	ND	0.50	μg/L
23	Dibromomethane	ND	0.50	μg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.50	μg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	ND	0.50	μg/L	60	1,2,4-Trichlorobenzene	ND	1.0	μg/L
26	Bromodichloromethane	ND	0.50	μg/L	61	Naphthalene	ND	1.0	μg/L
27	4-Methyl-2-pentanone (MIBK)	ND	2.5	μg/L	62	Hexachlorobutadiene	ND	1.0	μg/L
28	cis-1,3-Dichloropropene	ND	0.50	μg/L	63	1,2,3-Trichlorobenzene	ND	1.0	μg/L
29	trans-1,3-Dichloropropene	ND	0.50	μg/L	64	Surr: 1,2-Dichloroethane-d4	87	(70-130)	%REC
30	1,1,2-Trichloroethane	ND	0.50	μg/L	65	Surr: Toluene-d8	105	(70-130)	%REC
31	Toluene	ND	0.50	μg/L	66	Surr: 4-Bromofluorobenzene	104	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	μg/L					
33	Dibromochloromethane	ND	0.50	μg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: 2-Butanone (MEK) failed the method CV criteria of 70-130% @ 152%.

ND

ND = Not Detected

35 Tetrachloroethene

Kandy Soulner Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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

5/11/09

Report Date



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

VOC Sample Preservation Report

Work Order: BMI09042801 Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
09042801-01A	MW-3-5	Aqueous	2	
09042801-02A	MW-3-4	Aqueous	2	
09042801-03A	MW-3-3	Aqueous	2	
09042801-04A	MW-3-2	Aqueous	2	
09042801-05A	MW-3-1	Aqueous	2	
09042801-06A	EB-04-4/27/09	Aqueous	2	
09042801-07A	TB-04-4/27/09	Aqueous	2	

5/11/09 Report Date

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Report Attention David Conner Phone Number (619) 574-4827 x connerd@battelle.org EMail Address

Client:

Battelle Memorial Institute

PO: 218013 San Diego, CA 92110

Suite C-205 3990 Old Town Ave

Client's COC #: 25552

Page: 1 of 2

WorkOrder: BMIS09042801

Report Due By: 5:00 PM On: 12-May-2009

EDD Required: Yes

Cooler Temp

Sampled by: Client

4°C

Samples Received 28-Apr-2009

28-Apr-2009 Date Printed

QC Level: DS4 DOD QC Required: Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates

G005862/JPL Groundwater Monitoring

Betsy Cutie Shane Walton

(614) 424-4899 (614) 424-4117 x

×

cutiee@batelle.org waltons@battelle.org

BMI09042801-07A TB-04-4/27/09 BMI09042801-06A EB-04-4/27/09 BMI09042801-05A MW-3-1 BMI09042801-04A MW-3-2 BMI09042801-03A MW-3-3 BMI09042801-02A MW-3-4 BMI09042801-01A MW-3-5 Sample ID Sample ID Client Š ğ å Š g Š Matrix Date g 04/27/09 00:00 04/27/09 07:50 04/27/09 09:40 04/27/09 09:54 04/27/09 09:22 04/27/09 08:50 04/27/09 08:20 Collection No. of Bottles Alpha Sub 5 S S S S 5 0 0 0 0 0 0 0 TAT 6 6 5 10 6 5 6 NO2, NO3, SO4, CI NO2, NO3, SO4, CI NO2, NO3, SO4, CI NO2, NO3, NO2, NO3, SO4, CI SO4, CI 300_0(A)_W 300_0(B)_W 300_0(C)_W NO2, NO3, NO2, NO3, SO4, CI SO4, CI NO2, NO3, NO2, NO3, SO4, CI SO4, CI NO2, NO3, SO4, CI Perchlorate Perchlorate Perchlorate 314_W ALKALINIT METALS_D
Y_W W Perchlorate Perchlorate Perchlorate Requested Tests Αlk ₽Ĭk Αlk ₽ ΑĬķ Αlk Cr, Pb, As, Na, K, Ca, Mg, Fe Cr, Pb, As, Na, K, Ca, Mg, Fe Cr, Pb, As, Na, K, Ca, Mg, Fe PH_W pН PΗ pН pН ΡH pН TDS TDS TDS TDS TDS TDS TDS Reno Trip Blank 1/6/09 Sample Remarks Level IV QC.

Comments: No security seals. Frozen ice. Temp Blank #8672 received @ 4°C. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).

Logged in by: Hizabeth **Print Name** HIDCOX Alpha Analytical, Inc. Company 428.09 9.56 Date/Time

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

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

Report Due By: 5:00 PM On: 12-May-2009

WorkOrder: BMIS09042801

Page: 2 of 2

Report Attention Phone Number EMail Address

Client:

Battelle Memorial Institute

Shane Walton Betsy Cutie David Conner (614) 424-4899 x (614) 424-4117 x (619) 574-4827 x cutiee@batelle.org connerd@battelle.org waltons@battelle.org

EDD Required: Yes Sampled by: Client

Cooler Temp

Samples Received 28-Apr-2009

QC Level: DS4

Client's COC #: 25552

G005862/JPL Groundwater Monitoring

PO: 218013

San Diego, CA 92110

Suite C-205 3990 Old Town Ave

28-Apr-2009 Date Printed

BMI09042801-07A TB-04-4/27/09 BMI09042801-06A EB-04-4/27/09 Sample ID BMI09042801-05A BMI09042801-04A MW-3-2 BMI09042801-02A MW-3-4 BMI09042801-03A MW-3-3 BMI09042801-01A MW-3-5 MW-3-1 Sample ID = DOD QC Required : Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates Š g å Matrix Date ğ Š Š AQ 04/27/09 07:50 04/27/09 08:50 04/27/09 00:00 04/27/09 08:20 04/27/09 09:40 04/27/09 09:54 04/27/09 09:22 Collection No. of Bottles Alpha Sub TAT 5 S S S 5 S 0 0 0 0 0 0 0 6 6 6 5 6 6 6 VOC by 524 VOC by 524 Criteria Criteria VOC by 524 VOC by 524 VOC_TIC_ VOC_W Requested Tests Reno Trip Blank 1/6/09 Sample Remarks Level IV QC.

Logged in by: Enjabeth (Elizabeth Hdcox Alpha Analytical, Inc. Company 4.28.09 9:56 Date/Time

No security seals. Frozen ice. Temp Blank #8672 received @ 4°C. Perchlorate RL of 1.0 ug/L. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).

Comments:

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

TOMPKI	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21		Samples Collected From Which State? AZ CA \(\subseteq \) NV WA OTHER	ch State? 25552
COLUMBUS	Phone (775) 355-1044 Fax (775) 355-0406		Analyses Required	
Client Name DOVID CANKER P.O. #	2/80/3 Job#	1-005867		Required QC Level?
Town Ave, 6-205			24 20 8 24 200 15 300 15 15 20 15 15 20 15 15 20 15 15 15 15 15 15 15 15 15 15 15 15 15	/ - (II) v
92110	Phone # 6/9- 726- 73// Fax #		(3) (3) (4) (4) (7)	EDD / EDF? YES NO
Matrix* Sampled by	Report Attention	Total and type of	CH / CH	Global ID #
	Sample Description TAT	Filtered ** See below	(E) ()()	REMARKS
0750/1016 DA BMT09042801 .01 M	MW-3-5	× ×	×	
02	MW-3-4	×	× × ×	
	MW-3-3	×	×××	
	MW-3-2	×	× × ×	
M 50.	05 MW-3-1	X	× × ×	SC LEVEL TIL
300	EB-04-4/27/09	X	× × ×	EQUIPMENT BLANK
N	3-04-4/27/09	X		TRIP BLANC
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name	Co	Company	Date Time
Relinquished by	CHASE BROBBO	1NS/61	4	1/27/09 1200
Received by Chabeth Actor Felinquished by	Elizabuth Adax	alph	a +	128/69 9:56
Received by				
Relinquished by				
Received by				
*Key: AQ - Aqueous SO - Soil WA - Waste	OT - Other AR - Air **: L-Liter	V-Voa S-Soil Jar C	O-Orbo T-Tedlar B-Brass	P-Plastic OT-Other

of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis



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

Date: 08-May-09

David Conner

Battelle Memorial Institute

3990 Old Town Ave

San Diego, CA 92110 (818) 393-2808

Suite C-205

CASE NARRATIVE

Project:

G005862/JPL Groundwater Monitoring

Work Order:

BMI09042940

Cooler Temp:

4°C

Alpha's Sample ID	Client's Sample ID	Matrix
09042940-01A	MW-21-5	Aqueous
09042940-02A	MW-21-4	Aqueous
09042940-03A	MW-21-3	Aqueous
09042940-04A	MW-21-2	Aqueous
09042940-05A	MW-21-1	Aqueous
09042940-06A	DUPE-03-2Q09	Aqueous
09042940-07A	EB-05-4/28/09	Aqueous
09042940-08A	TB-05-4/28/09	Aqueous

Manually Integrated Analytes

Alpha's Sample ID	Test Reference	<u>Analyte</u>	
09042940-01A	EPA Method 314.0	Perchlorate	
09042940-02A	EPA Method 314.0	Perchlorate	
09042940-03A	EPA Method 314.0	Perchlorate	
09042940-04A	EPA Method 314.0	Perchlorate	
09042940-05A	EPA Method 314.0	Perchlorate	
09042940-06A	EPA Method 314.0	Perchlorate	

Enclosed please find the analytical results of the samples received by Alpha Analytical, Inc. under the above mentioned Work Order/Chain-of-Custody.

Alpha Analytical, Inc. has a formal Quality Assurance/Quality Control program, which is designed to meet or exceed the EPA requirements. All relevant QC met quality assurance objectives for this project unless otherwise stated in the footnotes.

If you have any questions with regards to this report, please contact Randy Gardner, Project Manager, at (800) 283-1183.

Roger Scholl

Kandy Sandner

Walter Hirihan



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

David Conner Attn: Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/29/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting	Date / Time	Date / Time
			Limit	Sampled	Analyzed
Client ID: MW-21-5	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 08:50	04/29/09 14:05
Lab ID: BMI09042940-01A	Nitrate (NO3) - N	8.9	0.25 mg/L	04/28/09 08:50	04/29/09 14:05
Client ID: MW-21-4	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 09:20	04/29/09 14:24
Lab ID: BMI09042940-02A	Nitrate (NO3) - N	4.9	0.25 mg/L	04/28/09 09:20	04/29/09 14:24
Client ID: MW-21-3	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 10:02	04/29/09 14:42
Lab ID: BMI09042940-03A	Nitrate (NO3) - N	11	0.25 mg/L	04/28/09 10:02	04/29/09 14:42
Client ID: MW-21-2	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 10:35	04/29/09 15:01
Lab ID: BMI09042940-04A	Nitrate (NO3) - N	14	0.25 mg/L	04/28/09 10:35	04/29/09 15:01
Client ID: MW-21-1	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 11:08	04/29/09 15:19
Lab ID: BMI09042940-05A	Nitrate (NO3) - N	18	2.5 mg/L	04/28/09 11:08	04/29/09 23:02
Client ID: DUPE-03-2Q09	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 00:00	04/29/09 15:38
Lab ID: BMI09042940-06A	Nitrate (NO3) - N	4.9	0.25 mg/L	04/28/09 00:00	04/29/09 15:38
Client ID: EB-05-4/28/09	Nitrite (NO2) - N	ND	0.25 mg/L	04/28/09 10:55	04/29/09 15:56
Lab ID: BMI09042940-07A	Nitrate (NO3) - N	ND	0.25 mg/L	04/28/09 10:55	04/29/09 15:56

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808 Fax: (614) 458-6641

Date Received: 04/29/09

Job#:

G005862/JPL Groundwater Monitoring

Anions by IC EPA Method 300.0 / 9056

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-21-5					
Lab ID:	BMI09042940-01A	Chloride	73	2.5 mg/L	04/28/09	04/29/09
		Sulfate (SO4)	130	2.5 mg/L	04/28/09	04/29/09
Client ID:	MW-21-4					
Lab ID:	BMI09042940-02A	Chloride	70	2.5 mg/L	04/28/09	04/29/09
		Sulfate (SO4)	120	2.5 mg/L	04/28/09	04/29/09
Cl: + ID	NOWALA	,		Ŭ		
Client ID:	MW-21-3				0.4.10.0.10.0	0.4/0.0/0.0
Lab ID:	BMI09042940-03A	Chloride	110	5.0 mg/L	04/28/09	04/29/09
		Sulfate (SO4)	160	5.0 mg/L	04/28/09	04/29/09
Client ID:	MW-21-2					
Lab ID:	BMI09042940-04A	Chloride	130	5.0 mg/L	04/28/09	04/29/09
		Sulfate (SO4)	190	5.0 mg/L	04/28/09	04/29/09
Client ID:	MW-21-1					
Lab ID :	BMI09042940-05A	Chloride	140	5.0 mg/L	04/28/09	04/29/09
		Sulfate (SO4)	230	5.0 mg/L	04/28/09	04/29/09
Client ID:	DUPE-03-2Q09			-		
Lab ID:	BMI09042940-06A	Clinin	5.		04/20/00	04/20/00
Lau ID :	DM109042940-06A	Chloride Sulfata (SOA)	71	2.5 mg/L	04/28/09 04/28/09	04/29/09 04/29/09
		Sulfate (SO4)	120	2.5 mg/L	04/28/09	04/29/09
Client ID:	EB-05-4/28/09					
Lab ID:	BMI09042940-07A	Chloride	ND	0.50 mg/L	04/28/09	04/29/09
		Sulfate (SO4)	ND	0.50 mg/L	04/28/09	04/29/09

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer

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542/09 Report Date



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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110 Attn: David Conner Phone: (818) 393-2808

Fax: (614) 458-6641

Date Received: 04/29/09

Job#: G005862/JPL Groundwater Monitoring

Perchlorate by Ion Chromatography EPA Method 314.0

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	MW-21-5 BMI09042940-01A	Perchlorate	2.97	1.00 μg/L	04/28/09	04/30/09
Client ID : Lab ID :	MW-21-4 BMI09042940-02A	Perchlorate	1.97	1.00 µg/L	04/28/09	04/30/09
Client ID: Lab ID:	MW-21-3 BMI09042940-03A	Perchlorate	2.77	1.00 μg/L	04/28/09	04/30/09
Client ID : Lab ID :	MW-21-2 BMI09042940-04A	Perchlorate	2.07	1.00 μg/L	04/28/09	04/30/09
Client ID: Lab ID:	MW-21-1 BMI09042940-05A	Perchlorate	2.38	1.00 μg/L	04/28/09	04/30/09
Client ID: Lab ID:	DUPE-03-2Q09 BMI09042940-06A	Perchlorate	1.87	1.00 μg/L	04/28/09	04/30/09
Client ID : Lab ID :	EB-05-4/28/09 BMI09042940-07A	Perchlorate	ND	1.00 μg/L	04/28/09	04/30/09

ND = Not Detected

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5/12/09



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ANALYTICAL REPORT

Battelle Memorial Institute

3990 Old Town Ave San Diego, CA 92110 Attn:

David Conner

Phone: (818) 393-2808

Fax:

(614) 458-6641

Date Received: 04/29/09

Job#:

G005862/JPL Groundwater Monitoring

Alkalinity SM2320B

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	MW-21-5					
Lab ID:	BMI09042940-01A	Alkalinity, Bicarbonate (As CaCO3)	200	10 mg/L	04/28/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	200	10 mg/L	04/28/09	05/05/09
Client ID:	MW-21-4					
Lab ID:	BMI09042940-02A	Alkalinity, Bicarbonate (As CaCO3)	160	10 mg/L	04/28/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	160	10 mg/L	04/28/09	05/05/09
Client ID:	MW-21-3					
Lab ID:	BMI09042940-03A	Alkalinity, Bicarbonate (As CaCO3)	290	10 mg/L	04/28/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	290	10 mg/L	04/28/09	05/05/09
Client ID:	MW-21-2					
Lab ID:	BMI09042940-04A	Alkalinity, Bicarbonate (As CaCO3)	290	10 mg/L	04/28/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	290	10 mg/L	04/28/09	05/05/09
Client ID:	MW-21-1					
Lab ID:	BMI09042940-05A	Alkalinity, Bicarbonate (As CaCO3)	220	10 mg/L	04/28/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	220	10 mg/L	04/28/09	05/05/09
Client ID:	DUPE-03-2Q09					
Lab ID:	BMI09042940-06A	Alkalinity, Bicarbonate (As CaCO3)	160	10 mg/L	04/28/09	05/05/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/05/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	160	10 mg/L	04/28/09	05/05/09
Client ID:	EB-05-4/28/09					
Lab ID:	BMI09042940-07A	Alkalinity, Bicarbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/06/09
		Alkalinity, Carbonate (As CaCO3)	ND	10 mg/L	04/28/09	05/06/09
		Alkalinity, Total (As CaCO3 at pH 4.5)	ND	10 mg/L	04/28/09	05/06/09



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ND = Not Detected

Roger Scholl

Roger Scholl Kandy Saulner Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / info@alpha-analytical.com

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ANALYTICAL REPORT

Battelle Memorial Institute 3990 Old Town Ave San Diego, CA 92110

Attn: David Conner Phone: (818) 393-2808

Fax: (614) 458-6641

Date Received: 04/29/09

Job#: G005862/JPL Groundwater Monitoring

Metals by ICPMS EPA Method 200.8

		Parameter	Concentration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID:	MW-21-5					
Lab ID :	BMI09042940-01A	Sodium (Na)	40	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	35	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	3.0	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	110	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	0.87	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09
Client ID:	MW-21-4					
Lab ID:	BMI09042940-02A	Sodium (Na)	34	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	31	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	2.9	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	92	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	1.1	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09
Client ID:	MW-21-3					
Lab ID:	BMI09042940-03A	Sodium (Na)	48	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	47	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	3.6	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	140	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	1.2	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09
Client ID:	MW-21-2					
Lab ID :	BMI09042940-04A	Sodium (Na)	75	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	53	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	3.6	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	160	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	1.5	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09



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Client ID:	MW-21-1					
Lab ID:	BMI09042940-05A	Sodium (Na)	41	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	58	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	2.8	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	180	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	1.8	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09
Client ID:	DUPE-03-2Q09					
Lab ID:	BMI09042940-06A	Sodium (Na)	31	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	28	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	2.6	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	98	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	1.4	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09
Client ID:	EB-05-4/28/09					
Lab ID:	BMI09042940-07A	Sodium (Na)	ND	0.50 mg/L	04/28/09	04/29/09
		Magnesium (Mg)	ND	0.50 mg/L	04/28/09	04/29/09
		Potassium (K)	ND	0.50 mg/L	04/28/09	04/29/09
		Calcium (Ca)	ND	0.50 mg/L	04/28/09	04/29/09
		Chromium (Cr)	ND	0.0050 mg/L	04/28/09	04/29/09
		Iron (Fe)	0.17	0.10 mg/L	04/28/09	04/29/09
		Arsenic (As)	ND	0.0020 mg/L	04/28/09	04/29/09
		Lead (Pb)	ND	0.0050 mg/L	04/28/09	04/29/09

ND = Not Detected

Roger Scholl Kandy Saulnur Walter Hinchman, Quality Assurance Officer

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