### ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS (SUMMARY SHEETS)

This attachment contains the laboratory analytical reports prepared by Alpha Analytical Inc. of Sparks, Nevada and Columbia Analytical Services (CAS) of Simi Valley, California.



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

Date: 03-Nov-08

David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

### **CASE NARRATIVE**

#### **Project:** G005862 /JPL Groundwater Monitoring Work Order: BMI08102258 4 °C **Cooler Temp:** Alpha's Sample ID Client's Sample ID Matrix 08102258-01A MW-21-5 Aqueous 08102258-02A MW-21-4 Aqueous 08102258-03A MW-21-3 Aqueous 08102258-04A MW-21-2 Aqueous 08102258-05A MW-21-1 Aqueous 08102258-06A DUPE-01-4Q08 Aqueous 08102258-07A TB-01-10/21/08 Aqueous 08102258-08A EB-01-10/21/08 Aqueous

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

Walter Acrilmon Roger Scholl Kandy Dandmer

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



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

#### ANALYTICAL REPORT

Battelle	e Memorial Institute
505 Kii	ng Avenue
Colum	ous, OH 43201
Job#:	G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-01A Client I.D. Number: MW-21-5

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

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### Volatile Organics by GC/MS

	Compound	Concentration	Rep	orting	_imit		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	3.5		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	101	(70-120)	%REC
30	1,1,2-Trichloroethane	ND		0.50	μg/L	65	Surr: Toluene-d8	100	(85-120)	%REC
31	Toluene	ND		0.50	μg/L	66	Surr: 4-Bromofluorobenzene	94	(75-120)	%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					
35	Tetrachloroethene	2.0		0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Dandmer

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.

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

11/4/08

**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 505 King Avenue Columbus, OH 43201 Job#: \_\_\_\_\_\_G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-02A Client I.D. Number: MW-21-4 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### Volatile Organics by GC/MS

	Compound	Concentration	Re	porting l	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	5.5		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	ŃD	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	100	(70-120)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	100	(85-120)	%REC
31	Toluene	ND		0.50	µg/L	66	Surr: 4-Bromofluorobenzene	96	(75-120)	%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					
35	Tetrachloroethene	2.4		0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Airihan

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.



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 505 King Avenue Columbus, OH 43201 Job#: \_\_\_\_\_G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-03A Client I.D. Number: MW-21-3 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### Volatile Organics by GC/MS

	Compound	Concentration	Reportin	g Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	* 0.5	) µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2	Chloromethane	ND	1.		37	Chlorobenzene	ND	0.50	μg/L
3	Vinyl chloride	ND	0.5		38	Ethylbenzene	ND	0.50	µg/L
4	Chloroethane	ND	0.5		39	m,p-Xylene	ND	0.50	μg/L
5	Bromomethane	ND	1.		40	Bromoform	ND	0.50	μg/L
6	Trichlorofluoromethane	ND	0.5		41	Styrene	ND	0.50	μg/L
7	1,1-Dichloroethene	ND	0.5		42	o-Xylene	ND	0.50	μg/L
8	Dichloromethane	ND	1.	) µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9	Freon-113	ND	0.5	) µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10	trans-1,2-Dichloroethene	ND	0.5	) µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11	Methyl tert-butyl ether (MTBE)	ND	0.5	) µg/L	46	Bromobenzene	ND	0.50	µg/L
12	1,1-Dichloroethane	ND	0.5	) µg/L	47	n-Propylbenzene	ND	0.50	µg/L
13	2-Butanone (MEK)	ND	1	) µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
14	cis-1,2-Dichloroethene	1.1	0.5	) µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.5	) µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	2.2	0.5	) µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17	2,2-Dichloropropane	ND	0.5	) µg/L	52	1,2,4-Trimethylbenzene	ND	0.50	μg/L
18	1,2-Dichloroethane	ND	0.5	) µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
19	1,1,1-Trichloroethane	ND	0.5	) µg/L	54	1,3-Dichlorobenzene	ND	0.50	µg/L
20	1,1-Dichloropropene	ND	0.5		55	1,4-Dichlorobenzene	ND	0.50	μg/L
21	Carbon tetrachloride	ND	0.5		56	4-Isopropyltoluene	ND	0.50	μg/L
22	Benzene	ND	0.5	) µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23	Dibromomethane	ND	0.5	) µg/L	58	n-Butylbenzene	ND	0.50	μg/L
24	1,2-Dichloropropane	ND	0.5	) µg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	µg/L
25	Trichloroethene	1.5	0.5	) µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26	Bromodichloromethane	ND	0.5	) 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	0.5	) µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29	trans-1,3-Dichloropropene	ND	0.5	) µg/L	64	Surr: 1,2-Dichloroethane-d4	101	(70-120)	%REC
30	1,1,2-Trichloroethane	ND	0.5	) µg/L	65	Surr: Toluene-d8	99	(85-120)	%REC
31	Toluene	ND	0.5	) µg/L	66	Surr: 4-Bromofluorobenzene	95	(75-120)	%REC
32	1,3-Dichloropropane	ND	0.5	) µg/L		-			
33	Dibromochloromethane	ND	0.5	) µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.	) µg/L					
35	Tetrachloroethene	7.7	0.5	) µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Acrim

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.

11/4/08

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
505 King Avenue
Columbus, OH 43201
Job#: G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-04A Client I.D. Number: MW-21-2 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### 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	1.6	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	3.6	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
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	0.72	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	(70-120)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	100	(85-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	96	(75-120)	%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					
35	Tetrachloroethene	12	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Sandner

Walter Acrilian

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.



**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 505 King Avenue Columbus, OH 43201 Job#: G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-05A Client I.D. Number: MW-21-1 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### 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 (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	102	(70-120)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	99	(85-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	95	(75-120)	%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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Daulner

Dalter Acrilmon

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.

11/4/08

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 505 King Avenue Columbus, OH 43201 Job#: \_\_\_\_\_G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-06A Client I.D. Number: DUPE-01-4Q08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### 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	0.52	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	100	(70-120)	%REC
30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	100	(85-120)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	96	(75-120)	%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					
35	Tetrachloroethene	ND	0.50	μg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Dandmer

Walter Airihan

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.



**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 505 King Avenue Columbus, OH 43201 Job#: \_\_\_\_\_\_G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-07A Client I.D. Number: TB-01-10/21/08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### Volatile Organics by GC/MS

	Compound	Concentration	R	eporting l	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		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	(70-120)	%REC
30	1,1,2-Trichloroethane	ND		0.50	µg/L	65	Surr: Toluene-d8	100	(85-120)	%REC
31	Toluene	ND		0.50	µg/L	66	Surr: 4-Bromofluorobenzene	98	(75-120)	%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					
35	Tetrachloroethene	ND		0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Dandmer

Walter Alinihum

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.



11/4/08 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 505 King Avenue Columbus, OH 43201 Job#: G005862 /JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102258-08A Client I.D. Number: EB-01-10/21/08 Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Sampled: 10/21/08 Received: 10/22/08 Analyzed: 10/28/08

#### Volatile Organics by GC/MS

	Compound	Concentration	Re	porting	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	0.76		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	103	(70-120)	%REC
30		ND		0.50	µg/L	65	Surr: Toluene-d8	99	(85-120)	%REC
31	Toluene	ND		0.50	µg/L	66	Surr: 4-Bromofluorobenzene	97	(75-120)	%REC
32	· · · · · · · · ·	ND		0.50	µg/L					
33	Dibromochloromethane	ND		0.50	µg/L					
34	,	ND		1.0	μg/L					
35	Tetrachloroethene	ND		0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

Note: Dichlorodifluoromethane failed the method CV criteria of 70-100% @ 69.2%.

ND = Not Detected

Roger Scholl

Kandy Sandner

Walter Acrilmon

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.



**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 InstituteA505 King AvenueHColumbus, OH 43201HJob#:G005862 /JPL Groundwater Monitoring

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

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated				
		Parameter	Estimated	Reporting	Date	Date	Date	
			Concentration	Limit	Received	Sampled	Analyzed	
Client ID : Lab ID :	<b>MW-21-5</b> BMI08102258-01A	*** None Found ***	ND	2.0 μg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	<b>MW-21-4</b> BMI08102258-02A	*** None Found ***	ND	2.0 μg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	<b>MW-21-3</b> BMI08102258-03A	*** None Found ***	ND	2.0 µg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	<b>MW-21-2</b> BMI08102258-04A	*** None Found ***	ND	2.0 µg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	<b>MW-21-1</b> BMI08102258-05A	*** None Found ***	ND	2.0 µg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	<b>DUPE-01-4Q08</b> BMI08102258-06A	*** None Found ***	ND	2.0 μg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	<b>TB-01-10/21/08</b> BMI08102258-07A	*** None Found ***	ND	2.0 µg/L	10/22/08	10/21/08	10/28/08	
Client ID : Lab ID :	E <b>B-01-10/21/08</b> BMI08102258-08A	*** None Found ***	ND	2.0 μg/L	10/22/08	10/21/08	10/28/08	

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dandmer

11/4/08

**Report Date** Page 1 of 1

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA  $\boldsymbol{\cdot}$  (916) 366-9089 / Las Vegas, NV  $\boldsymbol{\cdot}$  (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

### **VOC Sample Preservation Report**

#### Work Order: BMI08102258

#### Project: G005862 /JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
08102258-01A	MW-21-5	Aqueous	2	
08102258-02A	MW-21-4	Aqueous	2	
08102258-03A	MW-21-3	Aqueous	2	
08102258-04A	MW-21-2	Aqueous	2	
08102258-05A	MW-21-1	Aqueous	2	
08102258-06A	DUPE-01-4Q08	Aqueous	2	
08102258-07A	TB-01-10/21/08	Aqueous	2	
08102258-08A	EB-01-10/21/08	Aqueous	2	



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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/22/08

Job#: G005862 /JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyze
Client ID : Lab ID :	<b>MW-21-5</b> BMI08102258-01A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08
Client ID : Lab ID :	<b>MW-21-4</b> BMI08102258-02A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08
Client ID : Lab ID :	<b>MW-21-3</b> BMI08102258-03A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08
Client ID : Lab ID :	<b>MW-21-2</b> BMI08102258-04A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08
Client ID : Lab ID :	<b>MW-21-1</b> BMI08102258-05A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08
Client ID : Lab ID :	<b>DUPE-01-4Q08</b> BMI08102258-06A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08
Client ID : Lab ID :	EB-01-10/21/08 BMI08102258-08A	Chromium (Cr)	ND	0.0050 mg/L	10/21/08 10/23/08

ND = Not Detected

Roger Scholl

Kandy mlm

Walter Al

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.

11/4/08 Report Date

G005862 /JPL Groundwater Monitoring



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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/22/08

Job#: G005862 /JPL Groundwater Monitoring

### Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	<b>MW-21-5</b> BMI08102258-01A	Specific Conductance (at 25°C)	900	10 µS/cm	10/21/08	10/22/08
Client ID : Lab ID :	MW-21-4 BMI08102258-02A	Specific Conductance (at 25°C)	820	10 μS/cm	10/21/08	10/22/08
Client ID : Lab ID :	MW-21-3 BMI08102258-03A	Specific Conductance (at 25°C)	1,200	10 μS/cm	10/21/08	10/22/08
Client ID : Lab ID :	MW-21-2 BMI08102258-04A	Specific Conductance (at 25°C)	1,200	10 μS/cm	10/21/08	10/22/08
Client ID : Lab ID :	<b>MW-21-1</b> BMI08102258-05A	Specific Conductance (at 25°C)	1,200	10 µS/cm	10/21/08	10/22/08
Client ID : Lab ID :	DUPE-01-4Q08 BMI08102258-06A	Specific Conductance (at 25°C)	1,200	10 µS/cm	10/21/08	10/22/08
Client ID : Lab ID :	EB-01-10/21/08 BMI08102258-08A	Specific Conductance (at 25°C)	2,900	10 µS/cm	10/21/08	10/22/08

Roger Scholl

Kandy Sandmer

Walter Arihm

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.

11/4/08

**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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/22/08

Job#: G005862 /JPL Groundwater Monitoring

			Perchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	MW-21-5 BMI08102258-01A	Perchlorate	3.01	1.00 μg/L	10/21/08 10/24/08
Client ID : Lab ID :	MW-21-4 BMI08102258-02A	Perchlorate	2.25	1.00 μg/L	10/21/08 10/24/08
Client ID : Lab ID :	MW-21-3 BMI08102258-03A	Perchlorate	2.50	1.00 μg/L	10/21/08 10/24/08
Client ID : Lab ID :	<b>MW-21-2</b> BMI08102258-04A	Perchlorate	2.08	1.00 μg/L	10/21/08 10/24/08
Client ID : Lab ID :	MW-21-1 BMI08102258-05A	Perchlorate	2.95	1.00 µg/L	10/21/08 10/24/08
Client ID : Lab ID :	DUPE-01-4Q08 BMI08102258-06A	Perchlorate	2.92	1.00 µg/L	10/21/08 10/25/08
Client ID : Lab ID :	EB-01-10/21/08 BMI08102258-08A	Perchlorate	ND	1.00 µg/L	10/21/08 10/25/08

ND = Not Detected

Roger Scholl

Kandy Sauluer

Walter Arihur

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

**Report Date** 

connerd@battelle.org		
cutiee@batelle.org	EDD Required : Yes	
waltons@battelle.org	Sampled by : Client	
	Cooler Temp Samples Received	ceived Date Printed
	4 °C 22-Oct-08	8 22-Oct-08
Requested	Tests	
314_W CONDUCTI METALS_D VOC_TIC_ V	oc_w	Sample Remarks
Perchlorate Cr VOC by 524 VO Criteria C	C by 524 hiteria	
Perchlorate Cr VOC by 524 VO Criteria C		MS/MSD. Level IV QC.
Perchlorate Cr VOC by 524 VO	0 kv < 324	
	riteria	
Perchlorate Cr VOC by 524 VO Criteria C	Criteria VOC by 524 Criteria	
Perchlorate Cr VOC by 524 Perchlorate Cr VOC by 524 Criteria	interia Cby S24 Diversa Cby S24 Cby S24 Cby S24	
Perchlorate         Cr         VOC by 524	VOC by 524 VOC by 524 VOC by 524 VOC by 524 Criteria	
Perchlorate         Cr         VOC by 524           VOC by 524         Criteria           VOC by 524         Criteria	VOC by 524 Voc by 524 Criteria	Reno TB, 9/30/08.
Perchlorate     Cr     VOC by 524       Perchlorate     Cr     VOC by 524	Criteria Criteria Criteria Criteria Criteria Criteria Criteria Criteria	Reno TB, 9/30/08.
ate Perchlorate Cr VOC by 524 VO ate Perchlorate Cr VOC by 524 VO ate Perchlorate Cr VOC by 524 VO ate Perchlorate Cr VOC by 524 VO Criteria VOC by 524 VO Criteria VOC by 524 VO Criteria VOC by 524 VO	hiteria Niteria Niteria Diby 524 Niteria Diby 524 Niteria Niteria Niteria	Reno TB, 9/30/08.
Perchlorate Cr Perchlorate Cr Perchlorate Cr Perchlorate Cr Perchlorate Cr Perchlorate Cr Perchlorate RL of 1.0 ug	Criteria       Criteria         VOC by 524       VOC by 524         Criteria       Criteria         Criteria       Criteria         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 by 524       Criteria         VOC by 524       VOC by 524         Criteria       Criteria         Criteria       Criteria         VOC by 524       VOC by 524         Criteria       Criteria         VOC by 524       VOC by 524         Criteria       Criteria         VOC by 524       Criteria         Criteria       Criteria         VOC by 524       Criteria         Criteria       Criteria	Reno TB, 9/30/08. Date/Time
cutiee@batelle.org waltons@battelle.org <b>CONDUCTI METALS_D</b> Perchlorate Cr Perchlorate Cr	Inested         V0           524         V0           524         V0           524         V0	EDD Required : Yes Sampled by : Client <u>Cooler Temp</u> Samples Re <u>4</u> °C 22-Oct-0 voc_w voc_ys24 voc by 524 Criteria Voc by 524 Criteria

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

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: 05-Nov-08

WorkOrder: BMI08102258

**C**A

Billing Information :

Battelle

505 King Avenue

Columbus, OH 43201

Information:	Alpha An 255 Glendale	₽ ?	Iected From Which State? 026
Address <u>505 KING AVE</u> City, State, Zip <u>CoLUMBUS</u> , <u>off 43201</u> Phone Number Fax	Phone (775) 355-1044 Fax (775) 355-0406		Analys
Client Name DAVID CONNER	P.O.# 218013 Job #	6-005862	Required QC Level?
	EMail Address	4.2	3/Y.
DEGO, CA 92110	Phone # 6/9-726-73// Fax	#	EDD / EDF? YES NO
Date See Key			
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Fild "See below A A A	Y / / / REMARKS
ASTROXOLING AS ANTOKIOLISKA	MW-21-5	X X X 2 X X X	
0915 -CZ	MW - 21 - 4		MS/MSD, ac Lart III
En-	Mw-21-3	5 X X X	
1043	MW-21-2	XXX	
1117	Mw-21-1	X X X	
- <u>_</u>	DUPE-01-4208		DUPLICATE
- 07-	TB-01-10/21/08	1 ×	TEP BLANK
105 1 1 -OK	8-01-10/21/08	ν ν	GUIPHENT BLANK
ADDITIONAL INSTRUCTIONS:			
Signature	Print Name	Company	Date Time
Relinquished by	SHARE BRADON	INSULAT EECT	10/21/08 1300
Received by Aller 1 Aller	I Tale 1): CLINSON	alpha	10/22/18 122O
Received by			
Relinquished by			
Received by			
*Key: AQ - Aqueous SO - Soil WA - Waste NOTE: Samples are discarded 60 days after results are	OT - Other AR - Air **: L-Liter reported unless other arrangements are made. Ha	ter V-Voa S-Soil Jar O-Orbo T Hazardous samples will be returned to client or	*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.	s received by the laboratory with this coc. The li	ability of the laboratory is limited to the amount	paid for the report.



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

Date: 03-Nov-08

David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

### **CASE NARRATIVE**

Project:	G005862/JPL Groundwater Monitoring
----------	------------------------------------

ork Order: BMI08102324		Cooler Temp: 4 °C
Alpha's Sample ID	Client's Sample ID	Matrix
08102324-01A	MW-19-5	Aqueous
08102324-02A	MW-19-4	Aqueous
08102324-03A	MW-19-3	Aqueous
08102324-04A	MW-19-2	Aqueous
08102324-05A	MW-19-1	Aqueous
08102324-06A	EB-02-10/22/08	Aqueous
08102324-07A	TB-02-10/22/08	Aqueous

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

Walter Acrilmon Kandy Sandmer



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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102324-01A Client I.D. Number: MW-19-5

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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 (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	97	(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					
34	,	ND	1.0	µg/L					
35	Tetrachloroethene	2.1	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandner

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

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

11/5/08

**Report Date** 

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 505 King Avenue Columbus, OH 43201 G005862/JPL Groundwater Monitoring Job#:

Alpha Analytical Number: BMI08102324-02A Client I.D. Number: MW-19-4

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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	·) · · · · · · · · · · · · · · · · ·	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	· · · · · · · · · · · · · · · · · · ·	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	100	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Danlmer

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.

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

11/5/08

**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 505 King Avenue Columbus, OH 43201 G005862/JPL Groundwater Monitoring Job#:

Alpha Analytical Number: BMI08102324-03A Client I.D. Number: MW-19-3

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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	97	(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	98	(70-130)	%REC
32	· · · · · · · · · · · · · · · · · · ·	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Danlmer

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.

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

11/5/08 **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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102324-04A Client I.D. Number: MW-19-2

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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		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	) ND	2.5	µg/L
25	Trichloroethene	1.6	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	99	(70-130)	%REC
31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32	,	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	0.59	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dandmer

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

11/5/08

**Report Date** 

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102324-05A Client I.D. Number: MW-19-1

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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	99	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dandmer

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.

Walter Acrilian

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

11/5/08 **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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102324-06A Client I.D. Number: EB-02-10/22/08

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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	101	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Danlmer

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.

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

11/5/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102324-07A Client I.D. Number: TB-02-10/22/08

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

Sampled: 10/22/08 Received: 10/23/08 Analyzed: 10/27/08

#### 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	99	(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	102	(70-130)	%REC
32		ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

Kandy Dantmer

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.

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

11/5/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 (614) 458-6641 Fax:

### Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	<b>MW-19-5</b> BMI08102324-01A	Sulfur Dioxide	9.2	2.0 μg/L	10/23/08	10/22/08	10/27/08
Client ID : Lab ID :	<b>MW-19-4</b> BMI08102324-02A	Sulfur Dioxide	4.5	2.0 µg/L	10/23/08	10/22/08	10/27/08
Client ID : Lab ID :	<b>MW-19-3</b> BMI08102324-03A	Sulfur Dioxide	3.1	2.0 µg/L	10/23/08	10/22/08	10/27/08
Client ID : Lab ID :	<b>MW-19-2</b> BMI08102324-04A	* * * None Found * * *	ND	2.0 µg/L	10/23/08	10/22/08	10/27/08
Client ID : Lab ID :	<b>MW-19-1</b> BMI08102324-05A	* * * None Found * * *	ND	2.0 µg/L	10/23/08	10/22/08	10/27/08
Client ID : Lab ID :	EB-02-10/22/08 BMI08102324-06A	* * * None Found * * *	ND	2.0 µg/L	10/23/08	10/22/08	10/27/08
Client ID : Lab ID :	<b>TB-02-10/22/08</b> BMI08102324-07A	* * * None Found * * *	ND	2.0 µg/L	10/23/08	10/22/08	10/27/08

Note: Analysis conducted using EPA Method 524.2 criteria. ND = Not Detected

Roger Scholl

Kandy Dantman

Walter Aridmon

11/5/08

**Report Date** 

Page 1 of 1

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



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: BMI08102324

### Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
08102324-01A	MW-19-5	Aqueous	2	
08102324-02A	MW-19-4	Aqueous	2	
08102324-03A	MW-19-3	Aqueous	2	
08102324-04A	MW-19-2	Aqueous	2	
08102324-05A	MW-19-1	Aqueous	2	
08102324-06A	EB-02-10/22/08	Aqueous	2	
08102324-07A	TB-02-10/22/08	Aqueous	2	



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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/23/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8			
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	<b>MW-19-5</b> BMI08102324-01A	Chromium (Cr)	ND	0.0050 mg/L	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-4</b> BMI08102324-02A	Chromium (Cr)	ND	0.0050 mg/L	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-3</b> BMI08102324-03A	Chromium (Cr)	ND	0.0050 mg/L	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-2</b> BMI08102324-04A	Chromium (Cr)	ND	0.0050 mg/L	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-1</b> BMI08102324-05A	Chromium (Cr)	ND	0.0050 mg/L	10/22/08	10/23/08
Client ID : Lab ID :	EB-02-10/22/08 BMI08102324-06A	Chromium (Cr)	ND	0.0050 mg/L	10/22/08	10/23/08

ND = Not Detected

Roger Scholl

Kandy Soulmen

Dalter Acrim

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

11/5/08 **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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/23/08

Job#: G005862/JPL Groundwater Monitoring

		•	ific Conductance at 25°C d 120.1 / SM2510B / SW9050A			
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	<b>MW-19-5</b> BMI08102324-01A	Specific Conductance (at 25°C)	740	10 μS/cm	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-4</b> BMI08102324-02A	Specific Conductance (at 25°C)	600	10 μS/cm	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-3</b> BMI08102324-03A	Specific Conductance (at 25°C)	630	10 μS/cm	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-2</b> BMI08102324-04A	Specific Conductance (at 25°C)	1,000	10 μS/cm	10/22/08	10/23/08
Client ID : Lab ID :	<b>MW-19-1</b> BMI08102324-05A	Specific Conductance (at 25°C)	440	10 µS/cm	10/22/08	10/23/08
Client ID : Lab ID :	EB-02-10/22/08 BMI08102324-06A	Specific Conductance (at 25°C)	ND	10 μS/cm	10/22/08	10/23/08

ND = Not Detected

Roger Scholl

Kandy Saulman

Walter Hiridmon

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

11/5/08 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 505 King Avenue Columbus, OH 43201 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641Date Received : 10/23/08

Job#: G005862/JPL Groundwater Monitoring

			Perchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	<b>MW-19-5</b> BMI08102324-01A	Perchlorate	2.50	1.00 µg/L	10/22/08 10/25/08
Client ID : Lab ID :	<b>MW-19-4</b> BMI08102324-02A	Perchlorate	2.47	1.00 µg/L	10/22/08 10/25/08
Client ID : Lab ID :	BMI08102324-03A	Perchlorate	2.68	1.00 µg/L	10/22/08 10/25/08
Client ID : Lab ID :	BMI08102324-04A	Perchlorate	5.20	1.00 µg/L	10/22/08 10/25/08
Client ID : Lab ID :	<b>MW-19-1</b> BMI08102324-05A	Perchlorate	3.09	1.00 µg/L	10/22/08 10/25/08
Client ID : Lab ID :	EB-02-10/22/08 BMI08102324-06A	Perchlorate	ND	1.00 µg/L	10/22/08 10/25/08

ND = Not Detected

Roger Scholl

Kandy Soular

Walter Arihm

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

11/5/08 Report Date

Billing Information : Battelle			CH/	NN	-OF	-CU	STO	CHAIN-OF-CUSTODY RECORD	REC	ORD	CA	Page: 1 of 1	of 1
505 King Avenue					Alpł	na Ar	nalytic	Alpha Analytical, Inc.	•		WorkOrd	WorkOrder : BMI08102324	
Columbus, OH 43201	3201		2	55 Glen	dale Ave	nue, Suit	e 21 Sparl 4 FAX-1	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-577 TEL: (775) 355-1044 EAX: (775) 355-0406	89431-57 406	78	Report Due B	Report Due By : 5:00 PM On : 06-Nov-08	Nov-08
Client:			Report Attention		Phor	Phone Number	ber	EMail Address	Idress				
Battelle Memorial Institute	l Institute		David Conner	7	(619)	(619) 574-4827	27 x	connerd@battelle.org	battelle.or	04			
505 King Avenue	Ū		Betsy Cutie		(619)	(619) 574-4827	27 x	cutiee@batelle.org	telle.org		EDD Required : Yes	d : Yes	
Columbus. OH 43201	3201		Shane Walton	-	(614)	(614) 424-4117	17 x	waltons@battelle.org	attelle.or	00	Sampled by : Client	y : Client	
PO: 218013											Cooler Temp	Samples Received	Date Printed
t's COC # :	026302	Job :	G005862/JPL Groundwater Monitoring	- Groun	dwater N	<b>Nonitorin</b>	Ũ				4 °C	23-Oct-08	23-Oct-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	InitCal/Co	nCal data, LC	S, MS/N	<b>NSD Wit</b>	h Surrog	gates						
Alpha	Client		Collection	No. of Bottles	Bottles		314_W	CONDUCTI METALS_D	METALS_D	VOC_TIC_ VOC_W	VOC_W		
Sample ID	Sample ID	Matr	Matrix Date	Alpha	Sub	TAT		VITY	¥			Sample Remarks	Remarks
BMI08102324-01A	MW-19-5	AQ	10/22/08 08:20	თ	0	10	Perchlorate	Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08102324-02A	MW-19-4	AQ	10/22/08 08:49	თ	0	10	Perchlorate	Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Level IV QC	IV QC
BMI08102324-03A	MW-19-3	AQ	10/22/08 09:17	ъ	0	10	Perchlorate	Perchlorate	Çŗ	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08102324-04A	MW-19-2	AQ	10/22/08 09:45	თ	0	10	Perchlorate	Perchlorate	ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08102324-05A	MW-19-1	AQ	10/22/08 10:03	5	0	10	Perchlorate	Perchlorate	Ç	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08102324-06A	EB-02-10/22/08	AQ	10/22/08 10:03	СЛ	0	10	Perchlorate	Perchlorate	Cr	VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria		
BMI08102324-07A	TB-02-10/22/08	AQ	10/22/08 00:00	<b></b>	0	10				VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Reno Trip Blank 9/30/08	lank 9/30/08

**Comments:** No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).:

Signature

Logged in by: Kullung

monau Print Name

, Inc.	
10/23/08 123	Date/Time
0	

Company Alpha Analytical

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: Name CAERACY YOMPKINS Address SOS KING AVE.		Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Samples Collected From Which State? AZ CA_X NV WA ID OR OTHER P	I From Which State? 026302 NV WA Page # / of/
le, Zip <u>Columitats</u> umber		Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	Required
Client Name DAVID CONNER	P.O.# 2 18013	29 <u>8500</u> 7 <sub># qof</sub>	$\neg$	Required QC Level?
27	EMail Address		24 20 14	/ / = •
וולא	Phone # 619-726-7311	Fax #	-	EDD/EDF? YES
atrix* Sampled by	Report Attention	Total and type of		Global ID #
<u>a</u>	Sample Description	TAT Field ** See below	N K /	
BM1081023;	MW-19-5-		××	
			× × ×	ac Level II
09/7 05	Mw-19-3		× ×	
P0945 04	MW-19-2		× × ×	
20	MW-19-1		× × ×	
99 Eaul	88-02-10/22/08		× × ×	Equipment BLONK
07	TB-07-10/22/08	1->	×	TRIP BLONK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquished by	CHASE BUOLDO	a) INS/6	H EEL	0/22/08 1300
Received by Killingin	Kmunau	AA	1	10/23/08 1220
Relinquished by	/			
Received by				
Relinquished by				
Received by				
*Key: AQ - Aqueous SO - Soil WA - Waste	e OT - Other AR - Air	**: L-Liter V-Voa S-Soil Jar	ar 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.



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

**Date:** 05-Nov-08

David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

### CASE NARRATIVE

k Order:	BMI08102424		Cooler Temp: 4 °C	
Alpha's	Sample ID	Client's Sample ID	Matrix	
08102	2424-01A	MW-20-5	Aqueous	
08102	424-02A	MW-20-4	Aqueous	
08102	424-03A	MW-20-3	Aqueous	
08102	424-04A	MW-20-2	Aqueous	
08102	2424-05A	MW-20-1	Aqueous	
08102	424-06A	EB-03-10/23/08	Aqueous	
08102	2424-07A	TB-03-10/23/08	Aqueous	

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

Walter A Kandy Dandmer



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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

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

### Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID :	MW-20-5						
Lab ID :	BMI08102424-01A	Sulfur Dioxide	42	2.0 μg/L	10/24/08	10/23/08	10/27/08
		Carbon disulfide	2.4	2.0 µg/L	10/24/08	10/23/08	10/27/08
Client ID :	MW-20-4						
Lab ID :	BMI08102424-02A	Sulfur Dioxide	32	2.0 μg/L	10/24/08	10/23/08	10/27/08
Climit ID							
Client ID :	MW-20-3		22	2.0 //	10/24/09	10/22/08	10/27/08
Lab ID :	BMI08102424-03A	Sulfur Dioxide	22	2.0 µg/L	10/24/08	10/23/08	10/27/08
Client ID :	MW-20-2						
Lab ID :	BMI08102424-04A	Sulfur Dioxide	11	$2.0 \ \mu g/L$	10/24/08	10/23/08	10/27/08
Client ID :	MW-20-1						
Lab ID :	BMI08102424-05A	Sulfur Dioxide	19	2.0 μg/L	10/24/08	10/23/08	10/27/08
<u>.</u>							
Client ID :	EB-03-10/23/08			• • • •	10/01/00	10/00/00	10/25/00
Lab ID :	BMI08102424-06A	* * * None Found * * *	ND	2.0 μg/L	10/24/08	10/23/08	10/27/08
Client ID :	TB-03-10/23/08						
Lab ID :	BMI08102424-07A	* * * None Found * * *	ND	2.0 μg/L	10/24/08	10/23/08	10/27/08

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 11/6/08, due to a change in the reported TICS for -02A, -03A & -05A, due to lab error. ND = Not Detected

Roger Scholl

Kandy Santur

Walter Airihm

11/14/08 Report Date

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Alpha Analytical Number: BMI08102424-01A Client I.D. Number: MW-20-5 Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

#### Volatile Organics by GC/MS

Compound		Concentration	Reporting Limit		Compound		Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	0.50	μg/L		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)	%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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulmer

Walter Airihm

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.

11/6/08

**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 505 King Avenue Columbus, OH 43201 Job#: \_\_\_\_\_G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102424-02A Client I.D. Number: MW-20-4 Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

#### Volatile Organics by GC/MS

								Dava antinan Li	
	Compound	Concentration	Reporting Limit		Compound		Concentration	Reporting Limit	
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	100	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Airihan

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.



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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

Alpha Analytical Number: BMI08102424-03A Client I.D. Number: MW-20-3 Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

### 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		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	99	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulan

Walter Airihan

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

11/6/08

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102424-04A Client I.D. Number: MW-20-2

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

Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

### 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	0.54	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	97	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

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.

Walter Airihum 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

11/6/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

Alpha Analytical Number: BMI08102424-05A Client I.D. Number: MW-20-1 Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

### Volatile Organics by GC/MS

	Compound	Operation		••			Concentration	Reporting Li	mit
	Compound	Concentration	Reporting			Compound		· · · ·	
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	97	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulman

Walter Airihum

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Oardner, 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.

11/6/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Alpha Analytical Number: BMI08102424-06A Client I.D. Number: EB-03-10/23/08

Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

### 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	0.61	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	99	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulmer

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.

Walter Airihum

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

11/6/08

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 505 King Avenue Columbus, OH 43201 Job#: \_\_\_\_\_G005862/JPL Groundwater Monitoring Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Alpha Analytical Number: BMI08102424-07A Client I.D. Number: TB-03-10/23/08

Sampled: 10/23/08 Received: 10/24/08 Analyzed: 10/27/08

### 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	99	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulmen

Walter Ainihum

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.

11/6/08

**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: BMI08102424

## Project: G005862/JPL Groundwater Monitoring

Alpha's Sample	ID Cli	ent's Sample ID	Matrix	pH	
08102424-01	A	MW-20-5	Aqueous	2	
08102424-02	A	MW-20-4	Aqueous	2	
08102424-03	A	MW-20-3	Aqueous	2	
08102424-04	A	MW-20-2	Aqueous	2	
08102424-05	A	MW-20-1	Aqueous	2	
08102424-06	A E	B-03-10/23/08	Aqueous	2	
08102424-07	A T	B-03-10/23/08	Aqueous	2	



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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/24/08

## Job#: G005862/JPL Groundwater Monitoring

#### Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A Date Date Parameter Concentration Reporting Limit Sampled Analyzed Client ID: MW-20-5 BMI08102424-01A Specific Conductance (at 25°C) 10 µS/cm 10/23/08 10/24/08 Lab ID : 260 Client ID : MW-20-4 Lab ID : 10 µS/cm 10/23/08 10/24/08 BMI08102424-02A Specific Conductance (at 25°C) 310 Client ID : MW-20-3 Lab ID : BMI08102424-03A Specific Conductance (at 25°C) 410 10 µS/cm 10/23/08 10/24/08 Client ID : MW-20-2 Lab ID : BMI08102424-04A Specific Conductance (at 25°C) 10 µS/cm 10/23/08 10/24/08 560 Client ID : MW-20-1 Lab ID : BMI08102424-05A Specific Conductance (at 25°C) 590 10 µS/cm 10/23/08 10/24/08 Client ID : EB-03-10/23/08 Lab ID : BMI08102424-06A Specific Conductance (at 25°C) 10 µS/cm 10/23/08 10/24/08 ND

ND = Not Detected

Roger Scholl

Kandy Saulmer

Walter Hinihum

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.

11/6/08 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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/24/08

Job#: G005862/JPL Groundwater Monitoring

			Perchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID : ·	<b>MW-20-5</b> BMI08102424-01A	Perchlorate	32.9	1.00 μg/L	10/23/08 10/28/08
Client ID : Lab ID :	<b>MW-20-4</b> BMI08102424-02A	Perchlorate	39.4	1.00 μg/L	10/23/08 10/28/08
Client ID : Lab ID :	<b>MW-20-3</b> BMI08102424-03A	Perchlorate	1.04	1.00 µg/L	10/23/08 10/28/08
Client ID : Lab ID :	<b>MW-20-2</b> BMI08102424-04A	Perchlorate	2.07	1.00 µg/L	10/23/08 10/28/08
Client ID : Lab ID :	<b>MW-20-1</b> BMI08102424-05A	Perchlorate	2.73	1.00 µg/L	10/23/08 10/28/08
Client ID : Lab ID :	<b>EB-03-10/23/08</b> BMI08102424-06A	Perchlorate	ND	1.00 µg/L	10/23/08 10/28/08

ND = Not Detected

Roger Scholl

Kandy Dantmer

Walter Arihur

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.

11/6/08 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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/24/08

## Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyze
Client ID : Lab ID :	<b>MW-20-5</b> BMI08102424-01A	Chromium (Cr)	ND	0.0050 mg/L	10/23/08 10/30/08
Client ID : Lab ID :	<b>MW-20-4</b> BMI08102424-02A	Chromium (Cr)	ND	0.0050 mg/L	10/23/08 10/30/08
Client ID : Lab ID :	<b>MW-20-3</b> BMI08102424-03A	Chromium (Cr)	ND	0.0050 mg/L	10/23/08 10/30/08
Client ID : Lab ID :	<b>MW-20-2</b> BMI08102424-04A	Chromium (Cr)	ND	0.0050 mg/L	10/23/08 10/30/08
Client ID : Lab ID :	<b>MW-20-1</b> BMI08102424-05A	Chromium (Cr)	ND	0.0050 mg/L	10/23/08 10/30/08
Client ID : Lab ID :	<b>EB-03-10/23/08</b> BMI08102424-06A	Chromium (Cr)	ND	0.0050 mg/L	10/23/08 10/30/08

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Airihun

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.

Q 11/6/08 Report Date 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

	Logged in by:	
	Killiner	Signature
	Kmoraus	Print Name
	Alpha Analytical, Inc.	Company
	10/24/08 1200	Date/Time

No security seals. Frozen ice. Client provided Temp Blank rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD) :

**Comments:** 

Client:			Report Attention	tion	Pho	Phone Number	iber	EMail Address	ddress		l			
Battelle Memorial Institute	l Institute		David Conner	T	(619	(619) 574-4827	27 x	connerd@battelle.org	battelle.c	gı				
505 King Avenue	ŭ		Betsy Cutie		(619	(619) 574-4827	27 x	cutiee@batelle.org	telle.org			EDD Required : Yes	S	
Columbus, OH 43201	3201		Shane Walton	1	(614	(614) 424-4117	17 x	waltons@battelle.org	battelle.o	gı		Sampled by : Client	ient	
PO: 218013												<u>Cooler Temp</u>	Samples Received	Date Printed
Client's COC #: 02	026303	Job :	G005862/JPL Groundwater Monitoring	L Groun	dwater I	Monitori	ŋg					4 °C	24-Oct-08	24-Oct-08
QC Level: S4	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	InitCal/Co	nCal data, LC	:S, MS/N	<b>NSD Wi</b>	th Surro	gates							
										<b>Requested Tests</b>	ted Tes	ts		
Alpha Sample ID	Client Sample ID	Matr	Collection Matrix Date	No. of Bottles Alpha Sub	Bottles Sub	TAT	314_W	CONDUCTI METALS_D	METALS_I		Voc	2	Samp	Sample Remarks
BMI08102424-01A	MW-20-5	AQ	10/23/08 08:34	υ	0	10	Perchlorate	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria	324 a		
BMI08102424-02A	MW-20-4	AQ	10/23/08 09:07	сı	0	10	Perchlorate	Perchlorate	۵	VOC by 524 Criteria	VOC by 524 Criteria	524 a		
BMI08102424-03A	MW-20-3	AQ	10/23/08 09:38	сл	0	10	Perchlorate	Perchlorate	Ω	VOC by 524 VOC by 524 Criteria Criteria	VOC by 52 Criteria	324 a		
BMI08102424-04A	MW-20-2	AQ	10/23/08 10:09	10	0	10	Perchlorate	Perchlorate	۵	VOC by 524 Criteria	VOC by 524 Criteria	324 a	~	MS/MSD
BMI08102424-05A	MW-20-1	AQ	10/23/08 11:08	сл	0	10	Perchlorate	Perchlorate	۵	VOC by 524 VOC by 524 Criteria Criteria	VOC by 52 Criteria	a		
BMI08102424-06A	EB-03-10/23/08	AQ	10/23/08 10:54	Сī	0	10	Perchlorate	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria	324 a		
BMI08102424-07A TB-03-10/23/08	TB-03-10/23/08	ΑQ	10/23/08 00:00	<b></b>	0	10				VOC by 524 Criteria	VOC by 524 Criteria	324 a	Reno Tri	Reno Trip Blank 9/30/08

CA Page: 1 of 1

Report Due By: 5:00 PM On: 07-Nov-08

WorkOrder : BMI08102424

CHAIN-OF-CUSTODY RECORD

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

Alpha Analytical, Inc.

**Billing Information :** 

Battelle

Columbus, OH 43201

505 King Avenue

Billing Information: Name CERAL'S TOMPKINS Address SOS KINC AVE	Alph 255 G Spark	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Samples Collected From Which State? AZCANVWAF IDOROTHERF	Which State? 026303
имBus	Phone Fax (	Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	uired
Client Name DAVID CONNER	PIO.#218013	Jop # 6-002 8(7		Required QC Level?
TOWN AVE C-LOS	EMail Address	-	(200)	/ / I II 🗇 IV
XEGO, CA 92/10	Phone # 619-72 - 7311	Fax #		EDD / EDF? YES NO
Matrix* Sampled by	Report Attention	Total and type of		Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below		/ REMARKS
0934 P2/A AQ BM 108102424-01	Mw - 20-5	Ľ	XXX	
	Mw - 20 - 4			
033	MW - 20-3		XXX	
40 6001	MW-20-2	0	× × ×	MS/MSD
108 05	MW-20-1	S	× × ×	
1054 06	63-03-10/23/08	J	XXX	6 auguent BLONK
	T3-03-10/23/08	12	×	TTUP BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquiented by	CHASE Brof 200	INSIGA	A RECT	0521 Be/22/01
Received by KUULAU	K Munay	441		10/24/08 1145
Relinquished by				
Received by				
Relinquished by				
Received by				
*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	POT - Other AR - Air * reported unless other arrangements are	**: L-Liter V-Voa S-Soil Jar made. Hazardous samples will be re	O-Orbo T-Tedlar B-B sturned to client or disposed of at cl	B-Brass P-Plastic OT-Other 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.



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

Date: 07-Nov-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

## **CASE NARRATIVE**

Project: Work Order:	G005862/JPL Grou BMI08102802	id water wronnormg	Cooler Temp: 4 °C	
Alpha's	s Sample ID	Client's Sample ID	Matrix	
08102	2802-01A	MW-18-5	Aqueous	
08102	2802-02A	MW-18-4	Aqueous	
08102	2802-03A	MW-18-3	Aqueous	
08102	2802-04A	MW-18-2	Aqueous	
08102	2802-05A	MW-18-1	Aqueous	
08102	2802-06A	DUPE-02-4Q08	Aqueous	
08102	2802-07A	EB-04-10/24/08	Aqueous	
08102	2802-08A	TB-04-10/24/08	Aqueous	
08102	2802-09A	MW-17-5	Aqueous	
08102	2802-10A	MW-17-4	Aqueous	
08102	2802-11A	MW-17-3	Aqueous	
08102	2802-12A	MW-17-2	Aqueous	
08102	2802-13A	MW-17-1	Aqueous	
08102	2802-14A	DUPE-03-4Q08	Aqueous	
08102	2802-15A	EB-05-10/27/08	Aqueous	
08102	2802-16A	TB-05-10/27/08	Aqueous	

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

Walter Acridmon

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

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

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	<b>MW-18-5</b> BMI08102802-01A	Sulfur Dioxide	6.8	2.0 μg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>MW-18-4</b> BMI08102802-02A	Sulfur Dioxide	5.5	2.0 µg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>MW-18-3</b> BMI08102802-03A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>MW-18-2</b> BMI08102802-04A	* * * None Found * * *	ND	2.0 μg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>MW-18-1</b> BMI08102802-05A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>DUPE-02-4Q08</b> BMI08102802-06A	Sulfur Dioxide	7.1	2.0 µg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	EB-04-10/24/08 BMI08102802-07A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>TB-04-10/24/08</b> BMI08102802-08A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/24/08	10/30/08
Client ID : Lab ID :	<b>MW-17-5</b> BMI08102802-09A	Sulfur Dioxide	4.2	2.0 µg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	<b>MW-17-4</b> BMI08102802-10A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	<b>MW-17-3</b> BMI08102802-11A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	<b>MW-17-2</b> BMI08102802-12A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	<b>MW-17-1</b> BMI08102802-13A	Sulfur Dioxide	7.0	2.0 µg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	<b>DUPE-03-4Q08</b> BMI08102802-14A	* * * None Found * * *	ND	2.0 μg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	EB-05-10/27/08 BMI08102802-15A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/27/08	10/30/08
Client ID : Lab ID :	<b>TB-05-10/27/08</b> BMI08102802-16A	* * * None Found * * *	ND	2.0 µg/L	10/28/08	10/27/08	10/30/08



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

Note: Analysis conducted using EPA Method 524.2 criteria.

This replaces the report originally signed 11/10/08, due to a change in the reported TICS for samples -01A & -06A, due to lab error. ND = Not Detected

Roger Scholl Kandy Sauluer Dalter Hirihur 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.

11/14/08 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	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-01A	Sampled: 10/24/08
Client I.D. Number: MW-18-5	Received: 10/28/08
	Analyzed: 10/30/08

### Volatile Organics by GC/MS

Compound         Concentration         Reporting Limit         Compound         Concentration         Reporting Limit           1         Dichlorodifluoromethane         ND         0.50         µg/L         36         1,1,2-Tarckhoroethane         ND         0.50         µg/L           3         Viny chloride         ND         0.50         µg/L         38         Entybernzene         ND         0.50         µg/L           4         Chloromethane         ND         0.50         µg/L         38         Entybernzene         ND         0.50         µg/L           5         Bronmorthane         ND         0.50         µg/L         48         Bronmorthane         ND         0.50         µg/L           6         Trichlorofluoromethane         ND         0.50         µg/L         44         Styrene         ND         0.50         µg/L           7         1-1-Dichloroethane         ND         0.50         µg/L         44         1,2-2-Trackhoroethane         ND         0.50         µg/L           10         Int-Dichloroethane         ND         0.50         µg/L         45         Isopropylenzene         ND         0.50         µg/L           1         In-Dichoroethane         <										
2         Chloromethane         ND         1.0         µg/L         37         Chlorobenzene         ND         0.50         µg/L           3         Vinyl chloride         ND         0.50         µg/L         38         Entyloberane         ND         0.50         µg/L           5         Bromomethane         ND         0.50         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         0.50         µg/L         43         1.1_2_2 Terkschloroethane         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         44         Bromoberzene         ND         0.50         µg/L           10         Inst-1/2-Dichloroethane         ND         0.50         µg/L         44         Bromoberzene         ND         0.50         µg/L         45         Bromoberzene		Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Limit	
2         Chloromethane         ND         1.0         µg/L         37         Chloroberzene         ND         0.50         µg/L           3         Viny chloride         ND         0.50         µg/L         38         Ethylbenzane         ND         0.50         µg/L           5         Bromomethane         ND         0.50         µg/L         40         Bromorethane         ND         0.50         µg/L           6         Trichlorofluoromethane         ND         0.50         µg/L         42         oxytene         ND         0.50         µg/L           7         1.1-Dichloromethane         ND         0.50         µg/L         43         1.1,2,2-Tetrachloroethane         ND         0.50         µg/L           8         Dichloromethane         ND         0.50         µg/L         43         1.2,2-Tetrachloroethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethane         ND         0.50         µg/L         44         1.2,3-Trichloropropane         ND         0.50         µg/L           11         Methyl erbloride (MEK)         ND         0.50         µg/L         47         n-Propylbenzene         ND         0.50         µg/L <th>1</th> <th>Dichlorodifluoromethane</th> <th>ND</th> <th>0.50</th> <th>µg/L</th> <th>36</th> <th>1,1,1,2-Tetrachloroethane</th> <th>ND</th> <th>0.50</th> <th>µg/L</th>	1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
3         Viny chloride         ND         0.50         µg/L         38         Entylenzene         ND         0.50         µg/L           5         Bromomethane         ND         0.50         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         0.50         µg/L         43         1.2-2-Tretachloroethane         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         44         1.2-3-Trichloroethane         ND         0.50         µg/L           11         trichloroethane         ND         0.50         µg/L         44         1.2-3-Trichloroethane         ND         0.50         µg/L           11         trichloroethane         ND         0.50         µg/L         43         Entoroethane         ND         0.50         µg/L         44         trichloroetha	2	Chloromethane	ND	1.0		37	Chlorobenzene	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           8         Dichloromethane         ND         0.50         µg/L         42         Styrene         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         44         1,2,3-Trichloropethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethane         ND         0.50         µg/L         45         Isopropytbenzene         ND         0.50         µg/L           1         1.1-Dichloroethane         ND         0.50         µg/L         48         Horotoluene         ND         0.50         µg/L           1         1.3-Dichloroethane         ND         0.50         µg/L         48         4-Chiorotoluene         ND         0.50         µg/L           1         1.3-Dichloroethane         ND         0.50         µg/L         51         1.3-Dichloroethane         ND         0.50         µg/L           1	3	Vinyl chloride	ND	0.50		38	Ethylbenzene	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         Styrene         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         43         1,1,2.2.Tetrachloroethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethene         ND         0.50         µg/L         44         1,2.3.Trichloropthane         ND         0.50         µg/L           11         Methyl terrbulyl ether (MTBE)         ND         0.50         µg/L         47         n-Propylbenzene         ND         0.50         µg/L           11         Alchioroethane         ND         0.50         µg/L         47         n-Propylbenzene         ND         0.50         µg/L           12         1,1-Dichloroethene         ND         0.50         µg/L         47         n-Propylbenzene         ND         0.50         µg/L           13         2-Butanne (MEK)         ND         0.50         µg/L         51         1,3:5-Trimethylbenzene         ND         0.50         µg/L <td>4</td> <td>Chloroethane</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>39</td> <td>m,p-Xylene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td>	4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
7         1,1-Dichlorosthene         ND         0.50         µg/L         42         o-Xylene         ND         0.50         µg/L           8         Dichloromethane         ND         1.0         µg/L         44         1,2,2-Tetrachlorosthane         ND         0.50         µg/L           10         trans-1,2-Dichlorosthene         ND         0.50         µg/L         44         1,2,3-Tichlorospoane         ND         0.50         µg/L           11         Methyl tert/kutyl ether (MTBE)         ND         0.50         µg/L         44         1,3-Tichlorospoane         ND         0.50         µg/L           11         Intertyl ether (MTBE)         ND         0.50         µg/L         44         Chlorotoluene         ND         0.50         µg/L           14         cis-1,2-Dichlorosthane         ND         0.50         µg/L         50         1,3,5-Trimethylbenzene         ND         0.50         µg/L           15         Bronochloromethane         ND         0.50         µg/L         51         1,3-Dichlorosthane         ND         0.50         µg/L           12         2-Dichlorosthane         ND         0.50         µg/L         51         th-Dichlorosthane         ND         0.	5	Bromomethane	ND	1.0	µg/L	40	Bromoform	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         46         Bromobenzene         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           12         2-Butanore (MEK)         ND         0         0.50         µg/L         49         2-Chlorotoluene         ND         0.50         µg/L           14         cis-1,2-Dichloroethane         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND         0.50         µg/L           15         Bromochloromethane         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND	6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	ND	0.50	µg/L
9         Freen-113         ND         0.50         µg/L         44         1,2,3-Trichloropropane         ND         1.0         µg/L           10         trans-1,2-Dichloroethane         ND         0.50         µg/L         45         Isporpoyhenzene         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-Propyhenzene         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-Dichloroethane         ND         0.50         µg/L         51         tert/Butyletrizene         ND         0.50         µg/L           16         Chloroform         ND         0.50         µg/L         53         tert/Butyletrizene         ND         0.50         µg/L           17         2,2-Dichloroethane         ND         0.50         µg/L         54         1,3-Dichlorobenzene         ND         0.50         µg/L	7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
10         trans-1,2-Dichloroethene         ND         0.50         µg/L         45         Isopropyberzene         ND         0.50         µg/L           11         Methyl tert-butyl ether (MTBE)         ND         0.50         µg/L         46         Bromoberzene         ND         0.50         µg/L           11         11-Dichloroethane         ND         0.50         µg/L         44         Bromoberzene         ND         0.50         µg/L           12         11-Dichloroethane         ND         0.50         µg/L         48         4-Chlorotoluene         ND         0.50         µg/L           14         cis-1.2-Dichloroethane         ND         0.50         µg/L         50         1,3.5-Trimethylbenzene         ND         0.50         µg/L           15         Bromochloromethane         ND         0.50         µg/L         51         1ster-Butylbenzene         ND         0.50         µg/L           15         Itoroform         ND         0.50         µg/L         51         1,3-Dichlorobenzene         ND         0.50         µg/L           16         Chloroform         ND         0.50         µg/L         51         1,3-Dichlorobenzene         ND         0.50         µ	8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
10         trans-1,2-Dichloroethene         ND         0.50         µg/L         45         Isopropyhenzene         ND         0.50         µg/L           11         Methyl tert-butyl ether (MTBE)         ND         0.50         µg/L         46         Bromobenzene         ND         0.50         µg/L           11         Lit-Dichloroethane         ND         0.50         µg/L         47         Propyhenzene         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-Dichloroethane         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-Dichloroeptopane         ND         0.50         µg/L         51         tertButylbenzene         ND         0.50         µg/L           17         2,2-Dichloroporpane         ND         0.50         µg/L         53         tertButylbenzene         ND         0.50 <t< td=""><td>9</td><td>Freon-113</td><td>ND</td><td>0.50</td><td>µg/L</td><td>44</td><td>1,2,3-Trichloropropane</td><td>ND</td><td>1.0</td><td>µg/L</td></t<>	9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
12       1,1-Dichlorozethane       ND       0.50       µg/L       47       n-Propyblenzene       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         16       Chloroform       ND       0.50       µg/L       51       tert-Butylbenzene       ND       0.50       µg/L         17       2,2-Dichloroptopane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         18       1,2-Dichloroptopane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         19       1,1-Trichloroethane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloropropane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       57<	10	trans-1,2-Dichloroethene	ND	0.50		45	Isopropylbenzene	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       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-Dichloroptopane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         18       1.2-Dichloroptane       ND       0.50       µg/L       54       1,2-Dichlorobenzene       ND       0.50       µg/L         19       1,1,1-Trichloroethane       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloroptopene       ND       0.50       µg/L       57       1,2-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachoride       ND       0.50       µg/L <t< td=""><td>11</td><td>Methyl tert-butyl ether (MTBE)</td><td>ND</td><td>0.50</td><td>µg/L</td><td>46</td><td>Bromobenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	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-Dichlororethene       ND       0.50       µg/L       49       2-Chlorotoluene       ND       0.50       µg/L         15       Bromochloromethane       ND       0.50       µg/L       51       ter-Butybenzene       ND       0.50       µg/L         16       Chloroform       ND       0.50       µg/L       52       1,2,4-Trimethylbenzene       ND       0.50       µg/L         17       2,2-Dichloropropane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         19       1,1-Trichloroethane       ND       0.50       µg/L       53       sec-Butylbenzene       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-Isopropytoluene       ND       0.50       µg/L         22       Benzene       ND       0.50       µg/L       58       <	12	1,1-Dichloroethane	ND	0.50		47	n-Propylbenzene	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           16         Chloroform         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND         0.50         µg/L           17         2,2-Dichloropropane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           18         1,2-Dichloropthane         ND         0.50         µg/L         54         1,3.5-Chlorobenzene         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-Isopropytoluene         ND         0.50         µg/L           23         Dibromomethane         ND         0.50         µg/L         59         1,2-Dichloropropane         ND         0.50         µ	13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	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         53         sec-Butylbenzene         ND         0.50         µg/L           18         1,2-Dichloroptoethane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           19         1,1-Trichloroptoethane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           19         1,1-Trichloroptoethane         ND         0.50         µg/L         55         1,4-Dichlorobenzene         ND         0.50         µg/L           21         Carbon tetrachloride         ND         0.50         µg/L         55         1,4-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         58         n-Butylbenzene         ND         0.50         µg	14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	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-Dichloroptane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         19       1,1.1-Trichloroptane       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloroptopene       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       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       58       n-Butylbenzene       ND       0.50       µg/L         25       Trichloroethene       ND       0.50       µg/L       60 <td>15</td> <td>Bromochloromethane</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>50</td> <td>1,3,5-Trimethylbenzene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td>	15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	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-Dichloropethane       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       57       1,2-Dichlorobenzene       ND       0.50       µg/L         22       Benzene       ND       0.50       µg/L       58       n-Butylbenzene       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 (DBCP)       ND       2.5       µg/L         25       Trichloroethane       ND       0.50       µg/L	16	Chloroform	ND	0.50		51	tert-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-Isopropytloluene         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         58         n-Butylbenzene         ND         0.50         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         Naprithalene         ND         1.0         µg/L	17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	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-Isopropytoluene       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       1,2-4-Trichlorobenzene       ND       1.0       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 <t< td=""><td>18</td><td>1,2-Dichloroethane</td><td>ND</td><td>0.50</td><td>µg/L</td><td>53</td><td>sec-Butylbenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
21       Carbon tetrachloride       ND       0.50       µg/L       56       4-isopropytoluene       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-Dichloropropane (DBCP)       ND       0.50       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       60       1,2,4-Trichlorobenzene       ND       1.0       µg/L         26       Bromodichloropropene       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	19	1,1,1-Trichloroethane	ND	0.50		54	1,3-Dichlorobenzene	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 (DBCP)         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           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         63         1,2,3-Trichlorobenzene         ND         1.0         µg/L           28         cis-1,3-Dichloropropene         ND         0.50         µg/L         63         1,2,3-Trichloroethane-d4         100         (70-1	20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-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 (DBCP)         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           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         65         Surr: 1,2-Dichloroethane-d4         100 <td>21</td> <td>Carbon tetrachloride</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>56</td> <td>4-Isopropyltoluene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td>	21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	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 (DBCP)         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-Dichlorobenzene         ND         102         (70-130)         %REC           30         1,1,2-Trichloroethane         ND         0.50         µg/L         65         Surr: Tolu	22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	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)       %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       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         33       Dibromochloromethane <t< td=""><td>23</td><td>Dibromomethane</td><td>ND</td><td>0.50</td><td></td><td>58</td><td>n-Butylbenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	23	Dibromomethane	ND	0.50		58	n-Butylbenzene	ND	0.50	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-Dichlorobenzene         ND         1.0         µg/L           29         trans-1,3-Dichloropropene         ND         0.50         µg/L         64         Surr: 1,2-Dichlorobethane-d4         102         (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         66         Surr: 4-Bromofluo	24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCF	P) ND	2.5	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)       %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       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         33       Dibromochloromethane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         34       1,2-Dibromoethane (EDB)       ND       1.0       µg/L       55       Surr: 4-Bromofluorobenzene       56       57	25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	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-Dichlorobenzene       102       (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       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         33       Dibromochloromethane       ND       0.50       µg/L       4       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         34       1,2-Dibromoethane (EDB)       ND       1.0       µg/L       4       5       5       5       5       5       5       5       5       5	26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
29       trans-1,3-Dichloropropene       ND       0.50       µg/L       64       Surr: 1,2-Dichloroethane-d4       102       (70-130)       %REC         30       1,1,2-Trichloroethane       ND       0.50       µg/L       65       Surr: 1,2-Dichloroethane-d4       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       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         33       Dibromochloromethane       ND       0.50       µg/L       55       56	27	4-Methyl-2-pentanone (MIBK)	ND	2.5		62	Hexachlorobutadiene	ND	1.0	µg/L
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         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         µg/L         4         4         1,2-Dibromoethane (EDB)         ND         1.0         µg/L         4	28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         µg/L         50	29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	102	(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	30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	100	(70-130)	%REC
33         Dibromochloromethane         ND         0.50         µg/L           34         1,2-Dibromoethane (EDB)         ND         1.0         µg/L	31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
33         Dibromochloromethane         ND         0.50         µg/L           34         1,2-Dibromoethane (EDB)         ND         1.0         µg/L	32	1,3-Dichloropropane	ND	0.50	µg/L					
34 1,2-Dibromoethane (EDB) ND 1.0 μg/L	33	Dibromochloromethane	ND	0.50						
35 Tetrachloroethene ND 0.50 µg/L	34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
	35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dantmer

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.

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

11/10/08

**Report Date** 

Page 1 of 1



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 505 King Avenue	Attn: David Conner Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	· ·
Alpha Analytical Number: BMI08102802-02A	Sampled: 10/24/08
Client I.D. Number: MW-18-4	Received: 10/28/08
	Analyzed: 10/30/08

### 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	2.1	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	11	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	1.4	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	100	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	0.50	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santun

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.

Walter Hindren

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

11/10/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn:         David Conner           Phone:         (619) 574-4827           Fax:         (614) 458-6641
Alpha Analytical Number: BMI08102802-03A Client I.D. Number: MW-18-3	Sampled: 10/24/08 Received: 10/28/08 Analyzed: 10/30/08

### 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	1.9	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	15	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	1.2	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	102	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

Kandy Saulmer 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

Walter Aridm

11/10/08

**Report Date** 

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	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-04A Client I.D. Number: MW-18-2	Sampled: 10/24/08 Received: 10/28/08 Analyzed: 10/30/08

### 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	98	(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	97	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur 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

Dalter Hinkow

11/10/08 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** 



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	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-05A	Sampled: 10/24/08
Client I.D. Number: MW-18-1	Received: 10/28/08
	Analyzed: 10/30/08

### Volatile Organics by GC/MS

	O	Orangentartia					Concentration	Departing Li	
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Limit	
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	99	(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	95	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Saulur

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.

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

8 11/10/08

**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** David Conner Attn: 505 King Avenue Phone: (619) 574-4827 Columbus, OH 43201 (614) 458-6641 Fax: Job#: G005862/JPL Groundwater Monitoring Alpha Analytical Number: BMI08102802-06A Sampled: 10/24/08 Client I.D. Number: DUPE-02-4Q08 Received: 10/28/08 Analyzed: 10/30/08

### Volatile Organics by GC/MS

Compound		Concentration	Departing			Compound	Concentration	Reporting Limit	
	Compound	Concentration	Reporting	Limit		Compound			
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	2.1	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	11	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	1.4	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	99	(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	96	(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					
35	Tetrachloroethene	0.52	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

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

Walter Arihm

11/10/08

**Report Date** 

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** David Conner Attn: 505 King Avenue Phone: (619) 574-4827 Columbus, OH 43201 Fax: (614) 458-6641 Job#: G005862/JPL Groundwater Monitoring Alpha Analytical Number: BMI08102802-07A Sampled: 10/24/08 Client I.D. Number: EB-04-10/24/08 Received: 10/28/08 Analyzed: 10/30/08

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	99	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Daulmer 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.

Walter Aridmen

11/10/08 **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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring	Attn:       David Conner         Phone:       (619) 574-4827         Fax:       (614) 458-6641
Alpha Analytical Number: BMI08102802-08A Client I.D. Number: TB-04-10/24/08	Sampled: 10/24/08 Received: 10/28/08 Analyzed: 10/30/08

### 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 (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	100	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

Kandy Dantmer

Walter Aridin

11/10/08

**Report Date** 

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 505 King Avenue	Attn: David Conner Phone: (619) 574-4827
•	
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-09A	Sampled: 10/27/08
Client I.D. Number: MW-17-5	Received: 10/28/08
	Analyzed: 10/30/08

### Volatile Organics by GC/MS

	0	<b>o i</b> <i>i</i>					Ossesstation	Departing Li	
	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	98	(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	96	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Soular 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.

Walter Hindren

11/10/08

**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	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-10A	Sampled: 10/27/08
Client I.D. Number: MW-17-4	Received: 10/28/08
	Analyzed: 10/30/08

### Volatile Organics by GC/MS

	Compound	Concentration	Denerties			Operation	Concentration	Reporting Limit	
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	ITTIL
1 C	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
2 C	Chloromethane	ND	1.0	µg/L	37	Chlorobenzene	ND	0.50	µg/L
3 V	/inyl chloride	ND	0.50	µg/L	38	Ethylbenzene	ND	0.50	µg/L
4 C	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
5 E	Bromomethane	ND	1.0	µg/L	40	Bromoform	ND	0.50	µg/L
6 T	richlorofluoromethane	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 C	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
9 F	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
10 tr	rans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	ND	0.50	µg/L
11 N	lethyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	ND	0.50	µg/L
	,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 c	is-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	ND	0.50	µg/L
15 E	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16 C	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	ND	0.50	µg/L
17 2	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 C	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
22 E	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
23 E	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 T	richloroethene	0.73	0.50	µg/L	60	1,2,4-Trichlorobenzene	ND	1.0	µg/L
26 E	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 c	is-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
29 tı	rans-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	101	(70-130)	%REC
31 T	oluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
32 1	,3-Dichloropropane	ND	0.50	µg/L					
33 E	Dibromochloromethane	ND	0.50	μg/L					
34 1	,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35 T	etrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Danlmer

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.

Dalter Aridm

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

C

11/10/08 **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** 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102802-11A Client I.D. Number: MW-17-3

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

Sampled: 10/27/08 Received: 10/28/08

Analyzed: 10/30/08

### 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-Chiorotoluene	ND	0.50	µg/L
15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
16	Chloroform	0.50	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	0.73	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	0.70	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	101	(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	96	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

KandyAd 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.

Walter Aridman

11/10/08

**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 505 King Avenue	Attn: David Conner Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-12A Client I.D. Number: MW-17-2	Sampled: 10/27/08 Received: 10/28/08 Analyzed: 10/30/08

### 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	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	102	(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	95	(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					
35	Tetrachloroethene	0.87	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmer

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.

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

11/10/08

**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	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-13A	Sampled: 10/27/08
Client I.D. Number: MW-17-1	Received: 10/28/08
	Analyzed: 10/30/08

### Volatile Organics by GC/MS

Compound         Concentration         Reporting Limit         Compound         Concentration         Reporting Limit           1         Dichlorodifluoromethane         ND         0.50         µg/L         36         1,1,2-Tetachlorodethane         ND         0.50         µg/L           3         Viny chloride         ND         0.50         µg/L         37         Chloromethane         ND         0.50         µg/L           4         Chloromethane         ND         0.50         µg/L         38         Entyberzene         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         43         Styrene         ND         0.50         µg/L           7         1.0-Ünitoroethene         ND         0.50         µg/L         43         1,2.2-Trichlorofbergene         ND         0.50         µg/L           10         trans-1.2-Dichloroethene         ND         0.50         µg/L         44         formocharcene         ND         0.50         µg/L           11         disi-1.2-Dichloroethene <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>				-						
2         Chloromethane         ND         1.0         µg/L         37         Chlorobenzene         ND         0.50         µg/L           3         Viny chloride         ND         0.50         µg/L         38<         Entybenzene         ND         0.50         µg/L           5         Bromomethane         ND         0.50         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-Dichloroethane         ND         0.50         µg/L         42         o-Xylene         ND         0.50         µg/L           8         Dichloromethane         ND         0.50         µg/L         43         1.1_2_2*trachloroethane         ND         0.50         µg/L           10         trans-1_2-Dichloroethane         ND         0.50         µg/L         44         1.2_3*Trichloroptopane         ND         0.50         µg/L           11         Methyl terbulyl ether (MTBE)         ND         0.50         µg/L         47         n-Propylbenzane         ND         0.50         µg/L		Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
2         Chloromethane         ND         1.0         upfL         37         Chlorobenzene         ND         0.50         µgfL           3         Viny chloride         ND         0.50         µgfL         38         Ethylbenzene         ND         0.50         µgfL           5         Bromomethane         ND         0.50         µgfL         40         Bromoform         ND         0.50         µgfL           6         Trichlorofuluromethane         ND         0.50         µgfL         41         Styrene         ND         0.50         µgfL           7         1.1-Dickloroethene         ND         0.50         µgfL         43         1,1,2,2-Tetrachloroethane         ND         0.50         µgfL           8         Dichloromethane         ND         0.50         µgfL         43         1,1,2,2-Tetrachloroethane         ND         0.50         µgfL           10         trans-1,2-Dichloroethene         ND         0.50         µgfL         43         Ionomober.zene         ND         0.50         µgfL           11         Methyl terbulyl eter (MTBE)         ND         0.50         µgfL         43         Chlorotoluene         ND         0.50         µgfL      <	1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
4         Chloroethane         ND         0.50         µg/L         39         m.p.Yylene         ND         0.50         µg/L           5         Bromomethane         ND         1.0         µg/L         40         Bromomethane         ND         0.50         µg/L           7         1.1-Dichloroethene         ND         0.50         µg/L         41         Styrene         ND         0.50         µg/L           9         Freen-113         ND         0.50         µg/L         44         1.2,2-Trichloroethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethene         ND         0.50         µg/L         44         1.2,3-Trichloroptane         ND         0.50         µg/L           10         trans-1,2-Dichloroethane         ND         0.50         µg/L         44         1.2,3-Trichloroptane         ND         0.50         µg/L           11         Methyl ter-bulyl ether (MTBE)         ND         0.50         µg/L         48         4-Chlorotoluene         ND         0.50         µg/L           12         2-blichoroethane         ND         0.50         µg/L         51         1-tre-bulyberzene         ND         0.50         µg/L	2	Chloromethane	ND	1.0		37	Chlorobenzene	ND	0.50	µg/L
5         Bromomethane         ND         0.10         µg/L         40         Bromomethane         ND         0.50         µg/L           6         Trichlorofluoromethane         ND         0.50         µg/L         41         Styrene         ND         0.50         µg/L           8         Dichloromethane         ND         0.50         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-Trichloroethane         ND         0.50         µg/L           1         therhy tether (MTBE)         ND         0.50         µg/L         44         1sopropylenzene         ND         0.50         µg/L           1         1,1-Dichloroethane         ND         0.50         µg/L         48         Eromobenzene         ND         0.50         µg/L           1         1,3-Dichloroethane         ND         0.50         µg/L         48         4-Chorotoluene         ND         0.50         µg/L           1         2-Dichloroethane         ND         0.50         µg/L         50         1,3-Trinethylbenzene         ND         0.50         µg/L	3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	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         Styrene         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         43         1,1,2,2-Tetrachloroethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethene         ND         0.50         µg/L         44         1,2,3-Trichloroptane         ND         0.50         µg/L           11         Methy terr-budy ether (MTBE)         ND         0.50         µg/L         47         n-Propybenzene         ND         0.50         µg/L           12         1-Dichloroethane         ND         0.50         µg/L         47         n-Propybenzene         ND         0.50         µg/L           13         2-Butanone (MEK)         ND         0.50         µg/L         49         2-Chiorotoluene         ND         0.50         µg/L           14         cis-1_2-Dichloroethane         ND         0.50         µg/L         51         1:3-Trinnethybenzene         ND         0.50         µg/L </td <td>4</td> <td>Chloroethane</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>39</td> <td>m,p-Xylene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td>	4	Chloroethane	ND	0.50	µg/L	39	m,p-Xylene	ND	0.50	µg/L
6         Trichlorofluoromethane         ND         0.50         µg/L         41         Styrene         ND         0.50         µg/L           7         1,1-Dichloromethane         ND         0.50         µg/L         42         o-Xylene         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         43         1,1,2,2-Tetrachloroethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethane         ND         0.50         µg/L         44         1,2,3-Trichloroptopane         ND         0.50         µg/L           11         Methy tert-butyl ether (MTBE)         ND         0.50         µg/L         48         4-Chlorotoluene         ND         0.50         µg/L           12         2-Butanore (MEK)         ND         0.50         µg/L         48         4-Chlorotoluene         ND         0.50         µg/L           13         2-Butanore (MEK)         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND         0.50         µg/L           14         cis-1,2-Dichloroethane         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND         0.50	5	Bromomethane	ND	1.0	µg/L	40	Bromoform	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-Trichloropcpane         ND         1.0         µg/L           10         trans-1,2-Dichloroethene         ND         0.50         µg/L         44         1,2,3-Trichloropcpane         ND         0.50         µg/L           11         Methyl terl-butyl ether (MTBE)         ND         0.50         µg/L         46         Bromobenzene         ND         0.50         µg/L           12         1,1-Dichloroethane         ND         0.50         µg/L         48         Chlorotoluene         ND         0.50         µg/L           13         2-Butanore (MEK)         ND         0.50         µg/L         49         2-Chlorotoluene         ND         0.50         µg/L           14         cis-1,2-Dichloroethane         ND         0.50         µg/L         51         1,3,5-Trimethylbenzene         ND         0.50         µg/L           15         Bromochloromethane         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND         0.5	6	Trichlorofluoromethane	ND	0.50		41	Styrene	ND	0.50	µg/L
9         Freen-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         Isporpylbenzene         ND         0.50         µg/L           11         Methy tert-buty etter (MTBE)         ND         0.50         µg/L         47         n-Propylbenzene         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-Dichloroethane         ND         0.50         µg/L         50         1,3,5-Trimethylbenzene         ND         0.50         µg/L           16         Chloroform         ND         0.50         µg/L         52         1,2,4-Trimethylbenzene         ND         0.50         µg/L           17         2,2-Dichloroethane         ND         0.50         µg/L         53         sce-Butylbenzene         ND         0.50         <	7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
10         trans-1,2-Dichloroethene         ND         0.50         µg/L         45         Isopropylenzene         ND         0.50         µg/L           11         Methyl terl-bulyl ether (MTBE)         ND         0.50         µg/L         46         Bromobenzene         ND         0.50         µg/L           11         1.1-Dichloroethane         ND         0.50         µg/L         47         n-Propylenzene         ND         0.50         µg/L           13         2-Butanone (MEK)         ND         0.00         µg/L         48         4-Chlorotoluene         ND         0.50         µg/L           14         cis-1,2-Dichloroethane         ND         0.50         µg/L         50         1,3-5-Trimethylbenzene         ND         0.50         µg/L           16         Chloroform         ND         0.50         µg/L         51         terl-Butylbenzene         ND         0.50         µg/L           17         2,2-Dichloroeptopane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           17         2,2-Dichloroeptopane         ND         0.50         µg/L         54         1,3-Dichlorobenzene         ND         0.50	8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
10         trans-12-Dichloroethene         ND         0.50         µg/L         45         Isopropylbenzene         ND         0.50         µg/L           11         Methyl terl-butyl ether (MTBE)         ND         0.50         µg/L         46         Bromobenzene         ND         0.50         µg/L           12         1,1-Dichloroethane         ND         0.50         µg/L         48         4-Chlorotoluene         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-Dichloroethane         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         53         sc-Butylbenzene         ND         0.50         µg/L           17         1,1-Trichloroethane         ND         0.50         µg/L         53         1,3-Dichlorobenzene         ND         0.50	9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
12       1,1-Dichlorozethane       ND       0.50       µg/L       47       n-Propyberzene       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-Dichlorozethene       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-Dichloroptopane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         18       1,2-Dichloroptopane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloroptopene       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         22       Benzene       ND       0.50       µg/L       57	10	trans-1,2-Dichloroethene	ND	0.50		45	Isopropylbenzene	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-Dichloroethane       ND       0.50       µg/L       49       2-Chlorotoluene       ND       0.50       µg/L         16       Chloroform       ND       0.50       µg/L       51       tert-Butylbenzene       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       s.2.4-Trimethylbenzene       ND       0.50       µg/L         18       1,2-Dichloropethane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloropopene       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       58       n-Butylbenzene       ND       0.50       µg/L         23       Dibromoethane       ND       0.50       µg/L       58 <t< td=""><td>11</td><td>Methyl tert-butyl ether (MTBE)</td><td>ND</td><td>0.50</td><td>µg/L</td><td>46</td><td>Bromobenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	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-Dichloroethane       ND       0.50       µg/L       49       2-Chlorotoluene       ND       0.50       µg/L         16       Chloroform       ND       0.50       µg/L       51       tert-Butylbenzene       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       s.2.4-Trimethylbenzene       ND       0.50       µg/L         18       1,2-Dichloropethane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloropopene       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       58       n-Butylbenzene       ND       0.50       µg/L         23       Dibromoethane       ND       0.50       µg/L       58 <t< td=""><td>12</td><td>1,1-Dichloroethane</td><td>ND</td><td>0.50</td><td>µg/L</td><td>47</td><td>n-Propylbenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	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-Dichloropthane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           20         1,1-Dichloropthane         ND         0.50         µg/L         54         1,3-Dichlorobenzene         ND         0.50         µg/L           21         Carbon tetrachloride         ND         0.50         µg/L         55         1,4-Dichlorobenzene         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         59         1,2-Dichlorobenzene         ND         0.50         µg/	13	2-Butanone (MEK)	ND	10		48	4-Chlorotoluene	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         1,2-1-rimethylbenzene         ND         0.50         µg/L           18         1,2-Dichloropethane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           19         1,1-Trichloropethane         ND         0.50         µg/L         54         1,3-Dichlorobenzene         ND         0.50         µg/L           21         Carbon tetrachloride         ND         0.50         µg/L         56         4-Isopropytoluene         ND         0.50         µg/L           23         Benzene         ND         0.50         µg/L         57         1,2-Dichloropropane         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         58         n-Butylbenzene         ND         0.50         µg/L     <	14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	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-Dichloropethane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         20       1,1-Trichloropethane       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       56       4-Isopropytoluene       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-Dichlorobenzene       ND       0.50       µg/L         25       Trichoroethane       ND       0.50       µg/L       60	15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
18       1,2-Dichloropethane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         19       1,1,1-Trichloropethane       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       58       n-Butylbenzene       ND       0.50       µg/L         23       Dibromomethane       ND       0.50       µg/L       59       n-Butylbenzene       ND       0.50       µg/L         24       1,2-Dichloropropane       ND       0.50       µg/L       60       1,2,4-Trichlorobenzene       ND       1.0       µg/L         25       Trichloroethene       ND       0.50       µg/L       61       Naphthalene       ND       1.0       µg/L         26       Bioronotichloropropene       ND       0.50       µg/L       63	16	Chloroform	ND	0.50		51	tert-Butylbenzene	ND	0.50	µg/L
11       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-Isopropytoluene       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       58       n-Butylbenzene       ND       0.50       µg/L         25       Trichloroethene       ND       0.50       µg/L       61       1.2-Dirbiorobenzene       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	17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	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 (DBCP)       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	18	1,2-Dichloroethane	ND	0.50	µg/L	53	sec-Butylbenzene	ND	0.50	µg/L
21       Carbon tetrachloride       ND       0.50       µg/L       56       4-Isopropytoluene       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 (DBCP)       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       63       1,2,3-Trichlorobenzene       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	19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	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 (DBCP)         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           26         Bromodichloromethane         ND         2.5         µg/L         62         Hexachlorobutadiene         ND         1.0         µg/L           27         4-Methyl-2-pentanone (MIBK)         ND         2.5         µg/L         63         1,2,3-Trichlorobenzene         ND         1.0         µg/L           28         cis-1,3-Dichloropropene         ND         0.50         µg/L         64         Surr: 1,2-Dichlorobenzene         ND <t< td=""><td>20</td><td>1,1-Dichloropropene</td><td>ND</td><td>0.50</td><td>µg/L</td><td>55</td><td>1,4-Dichlorobenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-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 (DBCP)         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           26         Bromodichloromethane         ND         0.50         µg/L         62         Hexachlorobutadiene         ND         1.0         µg/L           27         4-Methyl-2-pentanone (MIBK)         ND         2.5         µg/L         63         1,2,3-Trichlorobenzene         ND         1.0         µg/L           28         cis-1,3-Dichloropropene         ND         0.50         µg/L         64         Surr: 1,2-Dichloroethane-d4         99         (70-130)         %REC           30         1,1,2-Trichloroethane         ND         0.50         µg/L         65         Surr: 4-Bromofluorobenzene	21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	ND	0.50	µg/L
24       1,2-Dichloropropane       ND       0.50       µg/L       59       1,2-Dibromo-3-chloropropane (DBCP)       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       99       (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       94       (70-130)       %REC         32       1,3-Dichloropropane       <	22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	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       99       (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       94       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       94       (70-130)       %REC         32       1,3-Dichloropropane	23	Dibromomethane	ND	0.50	µg/L	58	n-Butylbenzene	ND	0.50	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-Dichlorobenzene         ND         1.0         µg/L           29         trans-1,3-Dichloropropene         ND         0.50         µg/L         65         Surr: 1,2-Dichlorobethane-d4         99         (70-130)         %REC           30         1,1,2-Trichloroethane         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           31         Toluene         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-B	24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBC	P) ND	2.5	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       99       (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       94       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       94       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       94       (70-130)       %REC         33       Dibromochloromethane       ND       0.50       µg/L       4       1.0       µg/L       4         34       1,2-Dibromoethane (EDB)       ND	25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	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-Dichlorobenzene       99       (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       94       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       94       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       94       (70-130)       %REC         33       Dibromochloromethane       ND       0.50       µg/L       4<	26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
29         trans-1,3-Dichloropropene         ND         0.50         µg/L         64         Surr: 1,2-Dichloroethane-d4         99         (70-130)         %REC           30         1,1,2-Trichloroethane         ND         0.50         µg/L         65         Surr: 1,2-Dichloroethane-d4         99         (70-130)         %REC           31         Toluene         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         µg/L         64         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           34         1,2-Dibromoethane (EDB)         ND         0.50         µg/L         55         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC	27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
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         94         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         µg/L         4         4         1,2-Dibromoethane (EDB)         ND         1.0         µg/L         4	28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
31         Toluene         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         94         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         4	29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	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	30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
33     Dibromochloromethane     ND     0.50     µg/L       34     1,2-Dibromoethane (EDB)     ND     1.0     µg/L	31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	94	(70-130)	%REC
33         Dibromochloromethane         ND         0.50         µg/L           34         1,2-Dibromoethane (EDB)         ND         1.0         µg/L	32	1,3-Dichloropropane	ND	0.50	µg/L					
	33	Dibromochloromethane	ND	0.50						
	34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
	35	Tetrachloroethene	ND	0.50						

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Daulmer

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.

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

11/10/08 **Report Date** 

Page 1 of 1



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** David Conner Attn: 505 King Avenue Phone: (619) 574-4827 Columbus, OH 43201 (614) 458-6641 Fax: Job#: G005862/JPL Groundwater Monitoring Alpha Analytical Number: BMI08102802-14A Sampled: 10/27/08 Client I.D. Number: DUPE-03-4Q08 Received: 10/28/08 Analyzed: 10/30/08

Volatile Organics by GC/MS

			Contraction of an Article Contract	·					
Compound		Concentration	Reporting	Limit		Compound	Concentration	Reporting Limit	
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	0.84	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	100	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dantmen 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

Walter Arihm

11/10/08

**Report Date** 

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	Attn: David Conner					
505 King Avenue	Phone: (619) 574-4827					
Columbus, OH 43201	Fax: (614) 458-6641					
Job#: G005862/JPL Groundwater Monitoring						
Alpha Analytical Number: BMI08102802-15A	Sampled: 10/27/08					
Client I.D. Number: EB-05-10/27/08	Received: 10/28/08					
	Analyzed: 10/30/08					

### 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	ŇD	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	101	(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	97	(70-130)	%REC
32	· · · · · · · · · · · · · · · · · · ·	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Hindren

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.



**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	Attn: David Conner
505 King Avenue	Phone: (619) 574-4827
Columbus, OH 43201	Fax: (614) 458-6641
Job#: G005862/JPL Groundwater Monitoring	
Alpha Analytical Number: BMI08102802-16A	Sampled: 10/27/08
Client I.D. Number: TB-05-10/27/08	Received: 10/28/08
	Analyzed: 10/30/08

### Volatile Organics by GC/MS

Compound         Concentration         Reporting Limit         Compound         Concentration         Reporting Limit           1         Dichorodifluoromethane         ND         0.50         µg/L         36         1,1,2-Tetrachloroethane         ND         0.50         µg/L           2         Viny chloride         ND         0.50         µg/L         38         Entyperzene         ND         0.50         µg/L           3         Entyperzene         ND         0.50         µg/L         48         Entyperzene         ND         0.50         µg/L           4         Entyperzene         ND         0.50         µg/L         40         Bromotime         ND         0.50         µg/L           6         Trichlorofluoromethane         ND         0.50         µg/L         44         Styrene         ND         0.50         µg/L           1         1.0-Dichloroethene         ND         0.50         µg/L         43         1.2.2-Trickloroethene         ND         0.50         µg/L           1         Interpolytente         ND         0.50         µg/L         44         1.2.3-Tricklorophytene         ND         0.50         µg/L           1         Intery tretabuly dencine										
2         Chloromethane         ND         1.0         µg/L         37         Chlorobertzane         ND         0.50         µg/L           3         Vinyi chloride         ND         0.50         µg/L         38         Entylebrazne         ND         0.50         µg/L           5         Bromonethane         ND         0.50         µg/L         40         Bromorethane         ND         0.50         µg/L           6         Trichlorofluoromethane         ND         0.50         µg/L         41         Styrene         ND         0.50         µg/L           7         1.1-Dichloroethane         ND         0.50         µg/L         42         o-Xylene         ND         0.50         µg/L           8         Dichloromethane         ND         0.50         µg/L         43         1.1_2_2 Trichloroethane         ND         0.50         µg/L           10         trans-1_2_2 Dichloroethane         ND         0.50         µg/L         44         1.3_2 Trichloroethane         ND         0.50         µg/L           11         Methyl ter-bulyl etter (MTEE)         ND         0.50         µg/L         47         n-Propylenzene         ND         0.50         µg/L <tr< th=""><th colspan="2">Compound</th><th>Concentration</th><th>Reporting</th><th>Limit</th><th colspan="2">Compound</th><th>Concentration</th><th colspan="2">Reporting Limit</th></tr<>	Compound		Concentration	Reporting	Limit	Compound		Concentration	Reporting Limit	
2         Chloromethane         ND         1.0         µg/L         37         Chloroberzene         ND         0.50         µg/L           3         Viny chloride         ND         0.50         µg/L         38         Ethylbenzene         ND         0.50         µg/L           5         Bromomethane         ND         0.50         µg/L         40         Bromordorm         ND         0.50         µg/L           6         Trichlorofluoromethane         ND         0.50         µg/L         43         Strynene         ND         0.50         µg/L           7         1.1-Dichloromethane         ND         0.50         µg/L         43         1.2.2-Tetrachloroethane         ND         0.50         µg/L           8         Dichloromethane         ND         0.50         µg/L         44         1.2.3-Trichloroethane         ND         0.50         µg/L           10         trans-1.2-Dichloroethane         ND         0.50         µg/L         44         1.2.3-Trichloropthane         ND         0.50         µg/L           11         Methyl erbly difter (MTBE)         ND         0.50         µg/L         47         rePropylenzene         ND         0.50         µg/L	1	Dichlorodifluoromethane	ND	0.50	µg/L	36	1,1,1,2-Tetrachloroethane	ND	0.50	µg/L
4         Chioroethane         ND         0.50         µg/L         39         m.p.Xylene         ND         0.50         µg/L           5         Bromomethane         ND         1.0         µg/L         40         Bromomethane         ND         0.50         µg/L           7         1.1-Dichloroethene         ND         0.50         µg/L         41         Styree         ND         0.50         µg/L           8         Dichloromethane         ND         0.50         µg/L         43         1.12.2-Tetrachloroethane         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         44         1.2.3-Trichloroptnaee         ND         0.50         µg/L           10         tars-1.2-Dichloroethane         ND         0.50         µg/L         44         1.2.3-Trichloroptnaee         ND         0.50         µg/L           11         Mettyl ter-sburg tetre (MTBE)         ND         0.50         µg/L         48         4-Chioroblenzee         ND         0.50         µg/L           12         1.1-Dichloroethane         ND         0.50         µg/L         51         1.5.5.Trimethylbenzaee         ND         0.50         µg/L	2	Chloromethane	ND	1.0		37	Chlorobenzene	ND	0.50	µg/L
4         Chloroethane         ND         0.50         µg/L         39         mp-Xylene         ND         0.50         µg/L           6         Bromonethane         ND         0.50         µg/L         41         Styrene         ND         0.50         µg/L           7         1.1-Dichloroethene         ND         0.50         µg/L         42         Stylene         ND         0.50         µg/L           9         Freen-113         ND         0.50         µg/L         44         15.2-Tetrachloroethane         ND         0.50         µg/L           10         trans-1.2-Dichloroethene         ND         0.50         µg/L         44         15.2-Tetrachloroethane         ND         0.50         µg/L           11         Methy ter-buly ether (MTBE)         ND         0.50         µg/L         48         Bromocherzene         ND         0.50         µg/L           12         1.1-Dichloroethane         ND         0.50         µg/L         48         A-Chlorobluene         ND         0.50         µg/L           12         2-Butonorethane         ND         0.50         µg/L         53         tsecharybienzene         ND         0.50         µg/L <t< td=""><td>3</td><td>Vinyl chloride</td><td>ND</td><td>0.50</td><td>µg/L</td><td>38</td><td>Ethylbenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	3	Vinyl chloride	ND	0.50	µg/L	38	Ethylbenzene	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         Styrene         ND         0.50         µg/L           9         Freon-113         ND         0.50         µg/L         43         1,1,2.2.Tetrachloroethane         ND         0.50         µg/L           10         trans-1,2-Dichloroethene         ND         0.50         µg/L         44         1,2.3.Trichloroptane         ND         0.50         µg/L           11         Methy terr-buly ether (MTBE)         ND         0.50         µg/L         48         Bromobenzene         ND         0.50         µg/L           12         1.1-Dichloroethane         ND         0.50         µg/L         47         n-Propybenzene         ND         0.50         µg/L           13         2-Butanone (MEK)         ND         0.50         µg/L         49         2-Chlorotoluene         ND         0.50         µg/L           14         cis.1, 2-Dichloroethane         ND         0.50         µg/L         51         1,3.5-Trimethybenzene         ND         0.50         µg/L	4	Chloroethane	ND	0.50		39	m,p-Xylene	ND	0.50	µg/L
7         1.1-Dichlorosthene         ND         0.50         µg/L         42         0-Xylene         ND         0.50         µg/L           8         Dichloromethane         ND         1.0         µg/L         44         1,2.3-Tetrachlorosthane         ND         0.50         µg/L           10         trans-1.2-Dichlorosthane         ND         0.50         µg/L         44         1,2.3-Tichloropropane         ND         0.50         µg/L           11         Methyl tert-budy ether (MTBE)         ND         0.50         µg/L         45         Isoproyhenzene         ND         0.50         µg/L           11         Methyl tert-budy ether (MTBE)         ND         0.50         µg/L         44         Chlorotoluene         ND         0.50         µg/L           11         Jchichlorosthane         ND         0.50         µg/L         44         Chlorotoluene         ND         0.50         µg/L           13         2.5         Dichlorosthane         ND         0.50         µg/L         50         1,3.5         Timethylbenzene         ND         0.50         µg/L           14         cis1.2-Dichorosthane         ND         0.50         µg/L         53         1.4         Dichor	5	Bromomethane	ND	1.0	µg/L	40	Bromoform	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-Dichloroethane         ND         0.50         µg/L         46         Bromobenzene         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         48         Chlorotoluene         ND         0.50         µg/L           13         2-Butanone (MEK)         ND         0.50         µg/L         49         2-Chlorotoluene         ND         0.50         µg/L           14         cis1,2-Dichloroethane         ND         0.50         µg/L         51         1.41-Butylbenzene         ND         0.50         µg/L           15         Bromochloromethane         ND         0.50         µg/L         52         1.2.4-Trimethylbenzene         ND         0.50	6	Trichlorofluoromethane	ND	0.50	µg/L	41	Styrene	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         tsporpoylbenzene         ND         0.50         µg/L           11         Methyl terb-utyl ether (MTBE)         ND         0.50         µg/L         45         tsporpoylbenzene         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-Dichloroethane         ND         0.50         µg/L         51         tert-Butylbenzene         ND         0.50         µg/L           16         Chloroform         ND         0.50         µg/L         53         tert-Butylbenzene         ND         0.50         µg/L           17         2,2-Dichloroepropane         ND         0.50         µg/L         53         tert-Butylbenzene         ND         0.50         µ	7	1,1-Dichloroethene	ND	0.50	µg/L	42	o-Xylene	ND	0.50	µg/L
10         trans-1,2-Dichloroethene         ND         0.50         µg/L         45         Isopropylbenzene         ND         0.50         µg/L           11         Methyl tert-bulyl ether (MTBE)         ND         0.50         µg/L         46         Bromoberzene         ND         0.50         µg/L           11         1,1-Dichloroethane         ND         0.50         µg/L         47         A-Propylbenzene         ND         0.50         µg/L           13         2-Butanone (MEK)         ND         10         µg/L         48         4-Chiorotoluene         ND         0.50         µg/L           14         cis-1,2-Dichloroethane         ND         0.50         µg/L         50         1,3-5-Trimethylbenzene         ND         0.50         µg/L           15         Bromochloromethane         ND         0.50         µg/L         51         1ster-Butylbenzene         ND         0.50         µg/L           14         12-Dichloroethane         ND         0.50         µg/L         53         see-Butylbenzene         ND         0.50         µg/L           14         12-Dichloroethane         ND         0.50         µg/L         53         1,3-Dichlorobenzene         ND         0.50	8	Dichloromethane	ND	1.0	µg/L	43	1,1,2,2-Tetrachloroethane	ND	0.50	µg/L
11         Methyl terl-butyl ether (MTBE)         ND         0.50         µg/L         46         Bromoberzene         ND         0.50         µg/L           12         1.1-Dichloroethane         ND         0.50         µg/L         47         n-Propyberzene         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         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           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         53         sec-Butylbenzene         ND         0.50         µg/L           14         1,2-Dichlorophene         ND         0.50         µg/L         54         1,3-Dichlorobenzene         ND         0.50 <td< td=""><td>9</td><td>Freon-113</td><td>ND</td><td>0.50</td><td>µg/L</td><td>44</td><td>1,2,3-Trichloropropane</td><td>ND</td><td>1.0</td><td>µg/L</td></td<>	9	Freon-113	ND	0.50	µg/L	44	1,2,3-Trichloropropane	ND	1.0	µg/L
12       1,1-Dichloroethane       ND       0.50       µg/L       47       n-Propyberzene       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-Dichloroethane       ND       0.50       µg/L       49       2-Chlorotoluene       ND       0.50       µg/L         16       Chloroform       ND       0.50       µg/L       51       tert-Butylbenzene       ND       0.50       µg/L         17       2,2-Dichloroptopane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         18       1,2-Dichloroptopane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         19       1,1-Trichloroethane       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloropropane       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       57	10	trans-1,2-Dichloroethene	ND	0.50	µg/L	45	Isopropylbenzene	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       48       4-Chlorotoluene       ND       0.50       µg/L         15       Bromochloromethane       ND       0.50       µg/L       51       13,5-Trimethylbenzene       ND       0.50       µg/L         16       Chloroform       ND       0.50       µg/L       52       1,2,4-Trimethylbenzene       ND       0.50       µg/L         17       2,2-Dichloroptopane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         18       1,2-Dichloroethane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         14       1,1-Trichloroethane       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       57       1,2-Dichlorobenzene       ND       0.50       µg/L         22       Benzene       ND       0.50       µg/L       58	11	Methyl tert-butyl ether (MTBE)	ND	0.50	µg/L	46	Bromobenzene	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         53         sec-Butylbenzene         ND         0.50         µg/L           18         1,2-Dichloroptopane         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-Dichloroptopene         ND         0.50         µg/L         56         4-Isopropt/loluene         ND         0.50         µg/L           21         Carbon tetrachloride         ND         0.50         µg/L         57         1,2-Dichloroptopane         ND         0.50	12	1,1-Dichloroethane	ND	0.50	µg/L	47	n-Propylbenzene	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-Dichloropropane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           19         1,1-Trichloropethane         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           23         Dibromomethane         ND         0.50         µg/L         57         1,2-Dichloropropane         ND         0.50         µg/L           23         Dibromomethane         ND         0.50         µg/L         58         n-Butylbenzene         ND         0.50 <td< td=""><td>13</td><td>2-Butanone (MEK)</td><td>ND</td><td>10</td><td>µg/L</td><td>48</td><td>4-Chlorotoluene</td><td>ND</td><td>0.50</td><td>µg/L</td></td<>	13	2-Butanone (MEK)	ND	10	µg/L	48	4-Chlorotoluene	ND	0.50	µg/L
The Chloroform         ND         0.50         µg/L         51         tert-Butylbenzene         ND         0.50         µg/L           17         2,2-Dichloropropane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           18         1,2-Dichloroptopane         ND         0.50         µg/L         53         sec-Butylbenzene         ND         0.50         µg/L           19         1,1-Trichloroptopane         ND         0.50         µg/L         54         1,3-Dichlorobenzene         ND         0.50         µg/L           11         1.1-Dichloroptopane         ND         0.50         µg/L         55         1.4-Dichlorobenzene         ND         0.50         µg/L           21         Carbon tetrachloride         ND         0.50         µg/L         56         1.4-Dichlorobenzene         ND         0.50         µg/L           22         Benzene         ND         0.50         µg/L         57         1.2-Dichlorobenzene         ND         0.50         µg/L           23         Diboromomethane         ND         0.50         µg/L         58         n-Butylbenzene         ND         0.50         µg/L	14	cis-1,2-Dichloroethene	ND	0.50	µg/L	49	2-Chlorotoluene	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-Dichloropthane       ND       0.50       µg/L       53       sec-Butylbenzene       ND       0.50       µg/L         19       1,1,1-Trichloropthane       ND       0.50       µg/L       54       1,3-Dichlorobenzene       ND       0.50       µg/L         20       1,1-Dichloroptopene       ND       0.50       µg/L       55       1,4-Dichlorobenzene       ND       0.50       µg/L         21       Carbon tetrachloride       ND       0.50       µg/L       55       1,4-Dichlorobenzene       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       59       1,2-Dichloropropane       ND       0.50       µg/L         24       1,2-Dichloropropane       ND       0.50       µg/L       60       1,2,4-Trichlorobenzene       ND       1.0       µg/L         25       Trichloroptnane       ND       0.50       µg/L	15	Bromochloromethane	ND	0.50	µg/L	50	1,3,5-Trimethylbenzene	ND	0.50	µg/L
18       1,2-Dichloroethane       ND       0.50       µg/L       53       sec-Butybenzene       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-lsopropytoluene       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       59       1,2-Dichlorobenzene       ND       0.50       µg/L         24       1,2-Dichloropropane       ND       0.50       µg/L       60       1,2,4-Trichlorobenzene       ND       1.0       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	16	Chloroform	ND	0.50	µg/L	51	tert-Butylbenzene	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       55       1,4-Dichlorobenzene       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       60       1,2,4-Trichlorobenzene       ND       1.0       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 <t< td=""><td>17</td><td>2,2-Dichloropropane</td><td>ND</td><td>0.50</td><td>µg/L</td><td>52</td><td>1,2,4-Trimethylbenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></t<>	17	2,2-Dichloropropane	ND	0.50	µg/L	52	1,2,4-Trimethylbenzene	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         59         1,2-Dichlorobenzene         ND         0.50         µg/L           24         1,2-Dichloropropane         ND         0.50         µg/L         59         1,2-Dibromo-3-chloropropane (DBCP)         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<	18	1,2-Dichloroethane	ND	0.50	µg/L	53		ND	0.50	µg/L
21       Carbon tetrachloride       ND       0.50       µg/L       56       4-lsopropytoluene       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 (DBCP)       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-Trichlorobethane-d4       101       (70-130)       %REC         30       trans-1,3-Dichloropropane       ND       0.50 <td>19</td> <td>1,1,1-Trichloroethane</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>54</td> <td>1,3-Dichlorobenzene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td>	19	1,1,1-Trichloroethane	ND	0.50	µg/L	54	1,3-Dichlorobenzene	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 (DBCP)         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           26         Bromodichloromethane         ND         0.50         µg/L         62         Hexachlorobutadiene         ND         1.0         µg/L           27         4-Methyl-2-pentanone (MIBK)         ND         2.5         µg/L         63         1,2,3-Trichlorobenzene         ND         1.0         µg/L           28         cis-1,3-Dichloropropene         ND         0.50         µg/L         63         1,2,3-Trichlorobenzene         ND	20	1,1-Dichloropropene	ND	0.50	µg/L	55	1,4-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 (DBCP)         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           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         65         Surr: 1,2-Dichloroethane-d4         101 <td>21</td> <td>Carbon tetrachloride</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>56</td> <td>4-Isopropyltoluene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td>	21	Carbon tetrachloride	ND	0.50	µg/L	56	4-Isopropyltoluene	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 (DBCP)         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-Dichlorobenzene         ND         1.01         (70-130)         %REC           30         1,1,2-Trichloropethane         ND         0.50         µg/L         65         Surr: 7-	22	Benzene	ND	0.50	µg/L	57	1,2-Dichlorobenzene	ND	0.50	µg/L
25       Tickloroethene       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       101       (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       97       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         33       Dibromochloromethane <td< td=""><td>23</td><td>Dibromomethane</td><td>ND</td><td>0.50</td><td></td><td>58</td><td>n-Butylbenzene</td><td>ND</td><td>0.50</td><td>µg/L</td></td<>	23	Dibromomethane	ND	0.50		58	n-Butylbenzene	ND	0.50	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-Dichlorobenzene         ND         1.0         µg/L           29         trans-1,3-Dichloropropene         ND         0.50         µg/L         64         Surr: 1,2-Dichlorobethane-d4         101         (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         97         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-Bromofluo	24	1,2-Dichloropropane	ND	0.50	µg/L	59	1,2-Dibromo-3-chloropropane (DBCI	P) ND	2.5	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       101       (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       97       (70-130)       %REC         32       1,3-Dichloropropane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         33       Dibromochloromethane       ND       0.50       µg/L       66       Surr: 4-Bromofluorobenzene       97       (70-130)       %REC         34       1,2-Dibromoethane (EDB)       ND       1.0       µg/L       55       Surr: 4-Bromofluorobenzene       56       56       56	25	Trichloroethene	ND	0.50	µg/L	60	1,2,4-Trichlorobenzene	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         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         101         (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         97         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         µg/L         4         1.0         µg/L         4           34         1,2-Dibromoethane (EDB)         ND         1.0         µg/L         4         4         4         4	26	Bromodichloromethane	ND	0.50	µg/L	61	Naphthalene	ND	1.0	µg/L
29         trans-1,3-Dichloropropene         ND         0.50         μg/L         64         Surr: 1,2-Dichloroethane-d4         101         (70-130)         %REC           30         1,1,2-Trichloroethane         ND         0.50         μg/L         65         Surr: 1,2-Dichloroethane-d4         101         (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         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         μg/L         4	27	4-Methyl-2-pentanone (MIBK)	ND	2.5	µg/L	62	Hexachlorobutadiene	ND	1.0	µg/L
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         97         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         μg/L         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         μg/L         4         1,2-Dibromoethane (EDB)         ND         1.0         μg/L         4         4         1,2-Dibromoethane (EDB)         ND         1.0         μg/L         4<	28	cis-1,3-Dichloropropene	ND	0.50	µg/L	63	1,2,3-Trichlorobenzene	ND	1.0	µg/L
31         Toluene         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           32         1,3-Dichloropropane         ND         0.50         µg/L         66         Surr: 4-Bromofluorobenzene         97         (70-130)         %REC           33         Dibromochloromethane         ND         0.50         µg/L         50         4         1,2-Dibromoethane (EDB)         ND         1.0         µg/L         50 <td>29</td> <td>trans-1,3-Dichloropropene</td> <td>ND</td> <td>0.50</td> <td>µg/L</td> <td>64</td> <td>Surr: 1,2-Dichloroethane-d4</td> <td>101</td> <td>(70-130)</td> <td>%REC</td>	29	trans-1,3-Dichloropropene	ND	0.50	µg/L	64	Surr: 1,2-Dichloroethane-d4	101	(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	30	1,1,2-Trichloroethane	ND	0.50	µg/L	65	Surr: Toluene-d8	101	(70-130)	%REC
33     Dibromochloromethane     ND     0.50     µg/L       34     1,2-Dibromoethane (EDB)     ND     1.0     µg/L	31	Toluene	ND	0.50	µg/L	66	Surr: 4-Bromofluorobenzene	97	(70-130)	%REC
33         Dibromochloromethane         ND         0.50         µg/L           34         1,2-Dibromoethane (EDB)         ND         1.0         µg/L	32	1,3-Dichloropropane	ND	0.50	µg/L					
34 1,2-Dibromoethane (EDB) ND 1.0 µg/L	33	Dibromochloromethane	ND	0.50						
35 Tetrachloroethene ND 0.50 µg/L	34	1,2-Dibromoethane (EDB)	ND	1.0						
	35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

Kandy Dantmen

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

11/10/08

**Report Date** 

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

## **VOC Sample Preservation Report**

### Work Order: BMI08102802

## Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
08102802-01A	MW-18-5	Aqueous	2	
08102802-02A	MW-18-4	Aqueous	2	
08102802-03A	MW-18-3	Aqueous	2	
08102802-04A	MW-18-2	Aqueous	2	
08102802-05A	MW-18-1	Aqueous	2	
08102802-06A	DUPE-02-4Q08	Aqueous	2	
08102802-07A	EB-04-10/24/08	Aqueous	2	
08102802-08A	TB-04-10/24/08	Aqueous	2	
08102802-09A	MW-17-5	Aqueous	2	
08102802-10A	MW-17-4	Aqueous	2	
08102802-11A	MW-17-3	Aqueous	2	
08102802-12A	MW-17-2	Aqueous	2	
08102802-13A	MW-17-1	Aqueous	2	
08102802-14A	DUPE-03-4Q08	Aqueous	2	
08102802-15A	EB-05-10/27/08	Aqueous	2	
08102802-16A	TB-05-10/27/08	Aqueous	2	



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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/28/08

Job#: G005862/JPL Groundwater Monitoring

	Metals by ICPMS EPA Method 200.8								
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed			
Client ID : Lab ID :	<b>MW-18-5</b> BMI08102802-01A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	<b>MW-18-4</b> BMI08102802-02A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	<b>MW-18-3</b> BMI08102802-03A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	<b>MW-18-2</b> BMI08102802-04A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	<b>MW-18-1</b> BMI08102802-05A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	<b>DUPE-02-4Q08</b> BMI08102802-06A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	EB-04-10/24/08 BMI08102802-07A	Chromium (Cr)	ND	0.0050 mg/L	10/24/08	10/30/08			
Client ID : Lab ID :	<b>MW-17-5</b> BMI08102802-09A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			
Client ID : Lab ID :	<b>MW-17-4</b> BMI08102802-10A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			
Client ID : Lab ID :	<b>MW-17-3</b> BMI08102802-11A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			
Client ID : Lab ID :	<b>MW-17-2</b> BMI08102802-12A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			
Client ID : Lab ID :	<b>MW-17-1</b> BMI08102802-13A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			
Client ID : Lab ID :	<b>DUPE-03-4Q08</b> BMI08102802-14A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			
Client ID : Lab ID :	EB-05-10/27/08 BMI08102802-15A	Chromium (Cr)	ND	0.0050 mg/L	10/27/08	10/30/08			



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

ND = Not Detected

Dalter Aridman

Roger Scholl Kandy Soulan Dalter Hinthin 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.

11/10/08 **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 505 King Avenue Columbus, OH 43201

David Conner Attn: Phone: (619) 574-4827 (614) 458-6641 Fax: Date Received : 10/28/08

#### G005862/JPL Groundwater Monitoring Job#:

	Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A								
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed			
Client ID : Lab ID :		Specific Conductance (at 25°C)	310	10 μS/cm	10/24/08	10/28/08			
Client ID : Lab ID :	<b>MW-18-4</b> BMI08102802-02A	Specific Conductance (at 25°C)	440	10 μS/cm	10/24/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	540	10 μS/cm	10/24/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	540	10 µS/cm	10/24/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	440	10 µS/cm	10/24/08	10/28/08			
Client ID : Lab ID :	<b>DUPE-02-4Q08</b> BMI08102802-06A	Specific Conductance (at 25°C)	450	10 µS/cm	10/24/08	10/28/08			
Client ID : Lab ID :	EB-04-10/24/08 BMI08102802-07A	Specific Conductance (at 25°C)	ND	10 µS/cm	10/24/08	10/28/08			
Client ID : Lab ID :	<b>MW-17-5</b> BMI08102802-09A	Specific Conductance (at 25°C)	310	10 µS/cm	10/27/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	330	10 µS/cm	10/27/08	10/28/08			
Client ID : Lab ID :	<b>MW-17-3</b> BMI08102802-11A	Specific Conductance (at 25°C)	750	10 μS/cm	10/27/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	1,000	10 µS/cm	10/27/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	380	10 µS/cm	10/27/08	10/28/08			
Client ID : Lab ID :	<b>DUPE-03-4Q08</b> BMI08102802-14A	Specific Conductance (at 25°C)	330	10 µS/cm	10/27/08	10/28/08			
Client ID : Lab ID :		Specific Conductance (at 25°C)	ND	10 µS/cm	10/27/08	10/28/08			



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

ND = Not Detected

Roger Scholl Kandy Sandmen Dalter 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.

11/10/08 **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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/28/08

Job#: G005862/JPL Groundwater Monitoring

		Р	erchlorate by Ion Chromatography EPA Method 314.0		
		Parameter	Concentration	Reporting Limit	Date Date Sampled Analyzed
Client ID : Lab ID :	<b>MW-18-5</b> BMI08102802-01A	Perchlorate	ND	1.00 µg/L	10/24/08 10/28/08
Client ID : Lab ID :	<b>MW-18-4</b> BMI08102802-02A	Perchlorate	34.3	1.00 µg/L	10/24/08 10/28/08
Client ID : Lab ID :	<b>MW-18-3</b> BMI08102802-03A	Perchlorate	39.8	1.00 μg/L	10/24/08 10/28/08
Client ID : Lab ID :	<b>MW-18-2</b> BMI08102802-04A	Perchlorate	ND	1.00 μg/L	10/24/08 10/28/08
Client ID : Lab ID :	<b>MW-18-1</b> BMI08102802-05A	Perchlorate	ND	1.00 µg/L	10/24/08 10/28/08
Client ID : Lab ID :	<b>DUPE-02-4Q08</b> BMI08102802-06A	Perchlorate	35.5	1.00 µg/L	10/24/08 10/28/08
Client ID : Lab ID :	EB-04-10/24/08 BMI08102802-07A	Perchlorate	ND	1.00 µg/L	10/24/08 10/28/08
Client ID : Lab ID :	<b>MW-17-5</b> BMI08102802-09A	Perchlorate	ND	1.00 µg/L	10/27/08 10/28/08
Client ID : Lab ID :	<b>MW-17-4</b> BMI08102802-10A	Perchlorate	ND	1.00 µg/L	10/27/08 10/28/08
Client ID : Lab ID :	<b>MW-17-3</b> BMI08102802-11A	Perchlorate	16.6	1.00 µg/L	10/27/08 10/28/08
Client ID : Lab ID :	<b>MW-17-2</b> BMI08102802-12A	Perchlorate	6.09	1.00 µg/L	10/27/08 10/28/08
Client ID : Lab ID :	<b>MW-17-1</b> BMI08102802-13A	Perchlorate	ND	1.00 µg/L	10/27/08 10/28/08
Client ID : Lab ID :	<b>DUPE-03-4Q08</b> BMI08102802-14A	Perchlorate	ND	1.00 µg/L	10/27/08 10/28/08
Client ID : Lab ID :	<b>EB-05-10/27/08</b> BMI08102802-15A	Perchlorate	ND	1.00 μg/L	10/27/08 10/28/08



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

ND = Not Detected

Walter Aridm

yst

Roger Scholl Kandy Stanlan Dalter Hirihum 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.

11/10/08 **Report Date** 

Date/Time	Alpha Analytical, Inc.		CoX	Ade	lizabeth	Eliza			X	ldcox	$\square$	Clyabuth	Logged in by:
<u>עמטועור (דידיי זאוטעאידע איז א</u> ועור).	Company			Print Name	Pri					Signature	Sig	2	
monihia (I E · MC/MCD) ·	Samples should be used as the control spike sample if possible (I.E.: MS/MSD). :	les should l		Level IV QC.		lank #7707 1	ıd temp b	p blank ar	vided tem	client pro	ice. One	No security seals. Frozen ice. One client provided temp blank and temp blank #7707 rec'd @, 4°.	<b>Comments:</b>
		VOC by 524 Criteria	VOC by 524 Criteria	Ω	Perchlorate	Perchlorate	10	0	о" 88 	10/27/08 08:56	Ą	MW-17-4	BMI08102802-10A
		VOC by 524 Criteria	VOC by 524 Criteria	Çr	Perchlorate	Perchlorate	10	0	о <sup>г</sup> 88	10/27/08 08:25	م م	MW-17-5	BMI08102802-09A
Reno Trip Blank 9/30/08		VOC by 524 Criteria	VOC by 524 Criteria				10	0	- <u>-</u>	10/24/08 00:00	AQ	TB-04-10/24/08	BMI08102802-08A
Equipment Blank		VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Ç	Perchlorate	Perchlorate	10	0	7 08 01	10/24/08 11:07	Ą	EB-04-10/24/08	BMI08102802-07A
Duplicate. Level IV QC.		VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Ω	Perchlorate	Perchlorate	10	0	) დ თ	10/24/08 00:00	Â	DUPE-02-4Q08	BMI08102802-06A
MS/MSD. Level IV QC.		VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	្ន	Perchlorate	Perchlorate	10	0	78	10/24/08 11:27	AQ	MW-18-1	BMI08102802-05A
		VOC by 524 Criteria	VOC by 524 Criteria	٩	Perchlorate	Perchlorate	10	0	5 US	10/24/08 10:43	Ą	MW-18-2	BMI08102802-04A
		VOC by 524 Criteria	VOC by 524 Criteria	Ω	Perchlorate	Perchlorate	10	0	- ე თ	10/24/08 10:00	Ą	MW-18-3	BMI08102802-03A
		VOC by 524 Criteria	VOC by 524 Criteria	Ω	Perchlorate	Perchlorate	10	0	<sup>6</sup> 8 5	10/24/08 09:09	ÂQ	MW-18-4	BMI08102802-02A
Level IV QC.		VOC by 524 VOC by 524 Criteria Criteria	VOC by 524 Criteria	Ω	Perchlorate	Perchlorate	10	0	- 08 5	10/24/08 08:31	Ą	MW-18-5	
Sample Remarks		VOC_W		METALS_I	CONDUCTI METALS_D	314_W	es TAT	No. of Bottles Alpha Sub	on N	Collection Matrix Date	Matr	Client Sample ID	Alpna Sample ID
		<b>Requested Tests</b>	1 1									2	-
						ogates	Nith Surr	AS/MSD	a, LCS, N	nCal dat	itCal/Co	= Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	QC Level: S4
<u>-08</u> <u>Date Printed</u> 28-Oct-08	<u>Cooler Temp</u> <u>Samples Received</u> <u>4</u> °C 28-Oct-08					ring	er Monito	G005862/JPL Groundwater Monitoring	2/JPL Gr	G00586	Job :	026301, 026310	PO: 218013 Client's COC #: 02(
	Sampled by : Client		gı	battelle.o	waltons@battelle.org	117 x	(614) 424-4117	(6	Valton	Shane Walton		3201	8
	EDD Required : Yes			telle.org	cutiee@batelle.org	1827 x	(619) 574-4827		utie	Betsy Cutie			
		1	gı	battelle.o	connerd@battelle.org	1827 x	(619) 574-4827	()	Conner	David Conner		Institute	505 King Avenue
				ddress	EMail Address	mber	Phone Number		Report Attention	Report			Client:
On: 11-Nov-08	Report Due By : 5:00 PM On : 11-Nov-08	Ref	778	89431-5 406	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	uite 21 Spa 044 FAX:	Avenue, Si 75) 355-1	Glendale / TEL: (7	255			3201	Columbus, OH 43201
102802	WorkOrder · RMI08103803			:	Alpha Analytical, Inc	nalyti	pha A	A					505 King Avenue
Page: 1 of 2	CA	•	ORD	REC	CHAIN-OF-CUSTODY RECC	USTC	F-C		HAI	0			Battelle

Billing Information : Battelle			CH	Í	-OF	-CL	JSTO	CHAIN-OF-CUSTODY RECC	REC	ORD			Page:	ge: 2 of 2
505 King Avenue					Alpł	la A	nalytic	Alpha Analytical, Inc.	•			orlyOrdor .	BMINGING	202
Columbus, OH 43201			2	55 Glen	ıdale Ave	nue, Sui	te 21 Spar	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	89431-57	178	,			
			-	T	EL: (775)	355-10-	44 FAX: (	TEL: (775) 355-1044 FAX: (775) 355-0406	904		Repo	ort Due By : 5	Report Due By : 5:00 PM On : 11-Nov-08	11-Nov-08
Client:		찌	<b>Report Attention</b>		Phor	Phone Number	iber	EMail Address	Idress					
Battelle Memorial Institute	itute	П	David Conner		(619)	(619) 574-4827	27 x	connerd@battelle.org	pattelle.or	8				
SUD KING AVENUE		ш	Betsy Cutie		(619)	(619) 574-4827	27 x	cutiee@batelle.org	telle.org		EI	EDD Required : Yes	ŏ	
Columbus, OH 43201		S	Shane Walton		(614)	(614) 424-4117	17 x	waltons@battelle.org	attelle.or	αġ		Sampled by : Client	ient	
PO: 218013												Cooler Temp	Samples Received	Date Printed
Client's COC #: 026301, 026310	, 026310 Job :		G005862/JPL Groundwater Monitoring	Groun	dwater N	lonitorir	ng					4°C	28-Oct-08	28-Oct-08
QC Level:S4 =	Final Rpt, MBLK, InitCal/ConCal data, LCS, MS/MSD With Surrogates	/ConC	al data, LCS	3, MS/N	MSD Wit	h Surro	gates			Requested Tests	ed Tests			
Alpha Client Sample ID Samp	le ID	latrix	Collection   Matrix Date A	No. of Alpha	No. of Bottles Alpha Sub	TAT	314_W	CONDUCTI METALS_D	METALS_D	VOC_TIC_	VOC_W		Sar	Sample Remarks
BMI08102802-11A MW-17-3		AQ 1	10/27/08 09:56	J	0	10	Perchlorate	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria			
BMI08102802-12A MW	MW-17-2	AQ 1	10/27/08 10:34	ъ	0	10	Perchlorate	Perchlorate	Ω	VOC by 524 Criteria	VOC by 524 Criteria			
BMI08102802-13A MW	MW-17-1	AQ 1	10/27/08 11:06	10	0	10	Perchlorate	Perchlorate	Ç	VOC by 524 Criteria	VOC by 524 Criteria			MS/MSD
BMI08102802-14A DUF	DUPE-03-4Q08 A	AQ 1	10/27/08 00:00	σ	0	10	Perchlorate	Perchlorate	G	VOC by 524 Criteria	VOC by 524 Criteria			Duplicate
BMI08102802-15A EB-	EB-05-10/27/08 A	AQ 1	10/27/08 10:51	σ	0	10	Perchlorate	Perchlorate	ç	VOC by 524 Criteria	VOC by 524 Criteria		Eq	Equipment Blank
BMI08102802-16A TB-	TB-05-10/27/08 A	AQ 1	10/27/08 00:00	<b>د</b>	0	10				VOC by 524 Criteria	VOC by 524 Criteria		Reno	Reno Trip Blank 9/30/08

Logged ir		Comments:
Logged in by: Clyabeth adams	Signature	No security seals. Frozen ice. One client provi
ex Elizabeth Holeway	Print Name	No security seals. Frozen ice. One client provided temp blank and temp blank #7707 rec'd @ 4°. Level IV QC. Samples should be used as the control spike sample if possible (I.E.: MS/MSD).
Alpha Analytical, Inc.	Company	ld be used as the control spike sample
10:28:08 9:52	Date/Time	e if possible (I.E.: MS/MSD). :

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: Name <u>GEEALD TOMPKINS</u> Address <u>505 KAUG AVE.</u>		Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Samples Coll AZ CA ID OR	Samples Collected From Which State? AZ CA × NV WA ID OR OTHER F	State? 026301 Page # / _ of /
City, State, Zip Column 201         Column 201         Fax         Fax		Phone (775) 355-1044 Fax (775) 355-0406		Analyses Required	
Client Name DAVID CONNER	P.O.# 218013	L985007# 40r	22	I I Ne	Required QC Level?
Address 3990 OLD TOWN AVE, C-205	EMail Address		24.2		/ 1 = 🗊 v
City, State, Zip SAN DIGLO, CA 92110	Phone # 6/9-726-73/1	Fax #	6		EDD / EDF? YES NO
Time Date See Key		Total and type of			Global ID #
Sampled Sampled Below Lab ID Number (Use Only)	Sample Description	TAT Field ** See below	A F		REMARKS
10- 208201801108 DN 2429/ 1880	MW-18-5	م	× × ×		OC LEVEL THE
			× × ×		
E0-			× × ×		
1043 V	MW-18-2				
1127 - 05	MW-18-1	õ	× ×		MS/MSD, ac Level II
- Ob	TUPE- 02-408	7	×××		161
τ <sub>0</sub> - ση	23-04-10/24/08	5	X X X		EQUIPMENT BLANK
80.	TB-04-10/24/08	<b>N</b> 1	×		TRIP BLANK
ADDITIONAL INSTRUCTIONS:					
Signature	Print Name		Company		Date Time
Relinquished by	CHAGE BROLDON	1 105/1	THI	2/01	24/08 1300
Received by Ongloth (Allor H	Lizabeth Hdrox		Jupha	10	10-28.08 9:52
Received by					
Relinquished by					
Received by					
*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 expanse. The report for the applysic	e OT - Other AR - Air	**: L-Liter V-Voa S-Soil Jar	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.

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.



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

Date: 12-Nov-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

# **CASE NARRATIVE**

## Project: G005862/JPL Groundwater Monitoring

ork Order: BMI08102956		Cooler Temp: 4 °C
Alpha's Sample ID	Client's Sample ID	Matrix
08102956-01A	MW-3-5	Aqueous
08102956-02A	MW-3-4	Aqueous
08102956-03A	MW-3-3	Aqueous
08102956-04A	MW-3-2	Aqueous
08102956-05A	MW-3-1	Aqueous
08102956-06A	DUPE-04-4Q08	Aqueous
08102956-07A	TB-06-10/28/08	Aqueous
08102956-08A	EB-06-10/28/08	Aqueous

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

Walter A. Kandy Dandmer

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



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** 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Tentatively Identified Compounds - Volatile Organics by GC/MS

				Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	<b>MW-3-5</b> BMI08102956-01A	Sulfur Dioxide	6.4	2.0 μg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>MW-3-4</b> BMI08102956-02A	Sulfur Dioxide	3.2	2.0 μg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>MW-3-3</b> BMI08102956-03A	Sulfur Dioxide	4.3	2.0 μg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>MW-3-2</b> BMI08102956-04A	* * * None Found * * *	ND	2.0 μg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>MW-3-1</b> BMI08102956-05A	*** None Found ***	ND	2.0 µg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>DUPE-04-4Q08</b> BMI08102956-06A	* * * None Found * * *	ND	2.0 µg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>TB-06-10/28/08</b> BMI08102956-07A	* * * None Found * * *	ND	2.0 µg/L	10/29/08	10/28/08	10/31/08
Client ID : Lab ID :	<b>EB-06-10/28/08</b> BMI08102956-08A	* * * None Found * * *	ND	2.0 μg/L	10/29/08	10/28/08	10/31/08

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl Kandy Ad

11/12/08 **Report Date** Page 1 of 1

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-01A Client I.D. Number: MW-3-5

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

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

### 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	102	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dantmer

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.

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

11/12/08 **Report Date** 

Page 1 of 1



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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-02A Client I.D. Number: MW-3-4

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

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

### 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	1.1	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	100	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dandmer

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

11/12/08

**Report Date** 

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
505 King Avenue
Columbus, OH 43201
Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-03A Client I.D. Number: MW-3-3

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

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

## 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	102	(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	95	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandner

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

Walter Arihm

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

Page 1 of 1

11/12/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-04A Client I.D. Number: MW-3-2

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

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

## 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	0.81	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	2.4	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	1.6	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	101	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Dandmen

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.

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

11/12/08 **Report Date** 

Page 1 of 1



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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-05A Client I.D. Number: MW-3-1 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

## 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 (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	102	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Rogen Scholl

Kandy Danlmer

Walter Hirihm

11/12/08

**Report Date** 

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-06A Client I.D. Number: DUPE-04-4Q08

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

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

### 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	101	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Danlmer 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.

Walter Aridmen

11/12/08 **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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08102956-07A Client I.D. Number: TB-06-10/28/08

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

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

## 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	101	(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	98	(70-130)	%REC
32	1,3-Dichloropropane	ND	0.50	µg/L					
33	Dibromochloromethane	ND	0.50	µg/L					
34	· ,= = ································	ND	1.0	µg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandner

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.

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

11/12/08 **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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Alpha Analytical Number: BMI08102956-08A Client I.D. Number: EB-06-10/28/08

Sampled: 10/28/08 Received: 10/29/08 Analyzed: 10/31/08

### 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,ṗ-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	0.60	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	101	(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	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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandner

Walter Acrilian

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.



11/12/08

Report Date Page 1 of 1



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: BMI08102956

## Project: G005862/JPL Groundwater Monitoring

Alpha's Sample ID	Client's Sample ID	Matrix	pH	
08102956-01A	MW-3-5	Aqueous	2	
08102956-02A	MW-3-4	Aqueous	2	
08102956-03A	MW-3-3	Aqueous	2	
08102956-04A	MW-3-2	Aqueous	2	
08102956-05A	MW-3-1	Aqueous	2	
08102956-06A	DUPE-04-4Q08	Aqueous	2	
08102956-07A	TB-06-10/28/08	Aqueous	2	
08102956-08A	EB-06-10/28/08	Aqueous	2	



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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/29/08

## Job#: G005862/JPL Groundwater Monitoring

#### Specific Conductance at 25°C EPA Method 120.1 / SM2510B / SW9050A Parameter Concentration Reporting Date Date Limit Sampled Analyzed Client ID : MW-3-5 10/28/08 10/29/08 Lab ID : BMI08102956-01A Specific Conductance (at 25°C) 350 10 µS/cm Client ID : MW-3-4 Lab ID : BMI08102956-02A Specific Conductance (at 25°C) 10 µS/cm 10/28/08 10/29/08 410 Client ID : MW-3-3 Lab ID : BMI08102956-03A Specific Conductance (at 25°C) 10 µS/cm 10/28/08 10/29/08 390 Client ID : MW-3-2 Lab ID : BMI08102956-04A Specific Conductance (at 25°C) 10 µS/cm 10/28/08 10/29/08 490 Client ID : MW-3-1 Lab ID : BMI08102956-05A Specific Conductance (at 25°C) 10 µS/cm 10/28/08 10/29/08 560 Client ID : DUPE-04-4Q08 BMI08102956-06A Specific Conductance (at 25°C) Lab ID : 10 µS/cm 10/28/08 10/29/08 560 Client ID : EB-06-10/28/08 Lab ID : BMI08102956-08A Specific Conductance (at 25°C) ND 10 µS/cm 10/28/08 10/29/08

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

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.

11/11/08 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 505 King Avenue Columbus, OH 43201

 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/29/08

## 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 BMI08102956-01A	Perchlorate	3.85	1.00 μg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>MW-3-4</b> BMI08102956-02A	Perchlorate	ND	1.00 μg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>MW-3-3</b> BMI08102956-03A	Perchlorate	ND	1.00 µg/L	10/28/08	10/30/08
Client ID : Lab ID :	MW-3-2 BMI08102956-04A	Perchlorate	114	5.00 µg/L	10/28/08	11/03/08
Client ID : Lab ID :	MW-3-1 BMI08102956-05A	Perchlorate	ND	1.00 μg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>DUPE-04-4Q08</b> BMI08102956-06A	Perchlorate	ND	1.00 µg/L	10/28/08	10/30/08
Client ID : Lab ID :	EB-06-10/28/08 BMI08102956-08A	Perchlorate	ND	1.00 μg/L	10/28/08	10/30/08

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Aridmon

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.

11/11/08 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 505 King Avenue Columbus, OH 43201 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

 Date Received : 10/29/08

Job#: G005862/JPL Groundwater Monitoring

			Metals by ICPMS EPA Method 200.8			
		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : Lab ID :	<b>MW-3-5</b> BMI08102956-01A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>MW-3-4</b> BMI08102956-02A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>MW-3-3</b> BMI08102956-03A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>MW-3-2</b> BMI08102956-04A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>MW-3-1</b> BMI08102956-05A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>DUPE-04-4Q08</b> BMI08102956-06A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08
Client ID : Lab ID :	<b>EB-06-10/28/08</b> BMI08102956-08A	Chromium (Cr)	ND	0.0050 mg/L	10/28/08	10/30/08

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

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.

11/11/08

Q

**Report Date** 

		الملا	n Analı	rtinal In	2			1
	255 G	∎ lendale Aveni	ue, Suite 21	, Sparks, Nevada	89431-5778		workurder:	DIATORIA
-		TEL: (775) 3	55-1044 F	AX: (775) 355-(	406		<b>Report Due By : 5</b> :	Report Due By : 5:00 PM On : 12-Nov-08
Repo	rt Attention	Phone	e Number	EMail A	ddress			
Davi	1 Conner	(619):	574-4827 x	connerd@	battelle.org			
Betsy	Cutie	(619)	574-4827 x	cutiee@b	atelle.org		EDD Required : Yes	v
Shan	e Walton	(614)	424-4117 x	waltons@	battelle.org		Sampled by : Client	ent
							Cooler Temp	Samples Received Date Printed
Job : G005	862/JPL Gro	undwater Mo	onitoring				4°C	29-Oct-08 29-Oct-08
3LK, InitCal/ConCal d	ata, LCS, M	S/MSD With	Surrogates					
						Requested	Tests	
Colle Matrix Da	Î	f Bottles Sub			A MARKET IN A WAY A VERY TO		)0C_¥	Sample Remarks
AQ 10/2	8/08 5	0	10 Perchi	orate Perchlorate	Cr V	OC by 524 V Criteria	XC by 524 Criteria	
AQ 10/2	8/08 5	0	10 Perchi	orate Perchlorate	Cr V	OC by 524 V Criteria	OC by 524 Criteria	
AQ 10/2	8/08 5	0	10 Perchi	orate Perchlorate	Cr V	OC by 524 V Criteria	Criteria	
AQ 10/2	8/08 5	0	10 Perchl	orate Perchlorate	Cr V	OC by 524 V Criteria	Criteria	
AQ 10/2 10	:45 5	0	10 Perchi	orate Perchlorate	C V	OC by 524 V Criteria	OC by 524 Criteria	
AQ 10/2	8/08 5	0	10 Perchi	orate Perchlorate	Cr V	OC by 524 V Criteria	Criteria	Duplicate
AQ 10/2	0/28/08 1 00:00	0	10			OC by 524 V Criteria	Criteria	Reno Trip Blank, 9/30/08
AQ 10/28/08	0/28/08 5 10:31	0	10 Perchlorate	orate Perchlorate	Cr V	VOC by 524 VOC by 524 Criteria Criteria	OC by 524 Criteria	Equipment Blank
	Kepo           Job :         G005;           Betsy         Shann           SLK, InitCal/ConCal d         005;           AQ         10/2;           AQ         10/2;	$\begin{tabular}{ c c c c } & $255$ G \\ \hline $Report Attention \\ David Conner \\ \hline $Betsy Cutie \\ Shane Walton \\ \end{tabular} \\ $	Alph         Signadale Aven         TEL: (775) 3         TEL: (775) 3         TEL: (775) 3         TEL: (775) 3         David Conner         David Conner         Marie Walton         Job :       G005862/JPL Groundwater M         Shane Walton       (619)         Shane Walton       (614)         Job :       GOIection       No. of Bottles         Matrix Date Alpha Sub 1         AQ       10/28/08       5       0         AQ       10/28/08       5	Concal data, LC           Concal data, LC           Concal data, LC           Concal data, LC           09:15           10/28/08           09:42           10/28/08	Alpha Analytical, In         255 Glendale Avenue, Suite 21 Sparks, Nevada         TEL: (775) 355-1044 FAX: (775) 355-0         Report Attention       Phone Number       EMail A         David Conner       (619) 574-4827 x       connerd@         Betsy Cutie       (619) 574-4827 x       cutiee@bt         Shane Walton       (614) 424-4117 x       waltons@         Job :       G005862/JPL Groundwater Monitoring       waltons@         State Walton       No. of Bottles         Matrix       Date       Alpha       Sub       TAT       valtons@         AQ       10/28/08       5       0       10       Perchlorate       Perchlorate         A	witcal, Inc.       Sparks, Nevada 89431-577       AX: (775) 355-0406       EMail Address       connerd@battelle.org       utiee@batelle.org       waltons@battelle.org       orare     Perchlorate       Cr     orare       Perchlorate     Cr       orare     Perchlorate       Cr     orare       Perchlorate     Cr       orare     Perchlorate       Perchlorate     Cr       orare     Perchlorate       Perchlorate     Cr       orare     Perchlorate       Perchlorate     Cr       orate     Perchlorate       Perchlorate     Cr       Perchlorate     Cr       Perchlorate     Cr	vtical, Inc.       Sparks, Nevada 89431-5778       AX: (775) 355-0406       EMail Address       connerd@battelle.org       utiee@battelle.org       waltons@battelle.org       waltons@battelle.org       valtons@battelle.org       Perchlorate     Voc_TTC       orate     Perchlorate     Cr       Perchlorate     Cr     Voc by 524       orate     Perchlorate     Cr     Voc by 524	<b>Figures</b> , Nevada 89431-5778         Sparks, Nevada 89431-5778 <b>EMail Address</b> connerd@battelle.org <b>Requested 1</b> waltons@battelle.org         waltons@battelle.org         VOC_TTC_ VOC         VOC_TTC_ VOC         vorate         Perchlorate       Criteria         ConbuctTI <b>Requested 1</b> VOC by 524       VOC         orate       Perchlorate       Cr       VOC by 524       VOC         orate       Perchlorate       Cr       VOC by 524       VOC         orate       Perchlorate       Criteria       C         VOC by 524       VOC         Orate       Perchlorate       Criteria       C         Perchlorate       Criteria       C         Perchlorate       Criteria       C         Perchlorate       Criteria

Logged in by han Signature Pring Name Alpha Analytical, Inc. Company 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: Name <u>(ERALD TOMPKINS</u> Address 505 KINC (NE		Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	Samples Collected From Which State? AZ CA X NV WA ID OR OTHER P	Which State? 026296
e, Zip <u>Социм Ви</u> б, , umber		Phone (775) 355-1044 Fax (775) 355-0406	Analyses Required	quired
Client Name DAVID CONNER	PO.# 218013	100 # doc		Required QC Level?
y	EMail Address		(200)	/ / / I II 🛈 IV
5	Phone # 19-726-7311	Fax #		EDD / EDF? YES NO
ampled by		Tota	of	Giobal ID #
N	11 1- 2-5-	Filtered	+	
			× × × ×	
CD- CD-	MW-3-3		×	
1013 -04	Mw-3-2		×××	
20-	MW-3-1		X X	DUPEZILATE
90-	DUPE-04 -4808		X X	
1	78-06-10/28/08	1	×	TRIP BLANK
80-80-	63-06-10/28/08	r	XXX	Ean IPMENT BLANK
ADDITIONAL INSTRUCTIONS:				
Signature	Print Name		Company	Date Time
Relinquished by	CHUSE BRUDDA	J INSIG	HT FEET	0051 80/82/01
Receivents IQUA ( WATCH ON	Flace Nich	Moun G	10 phre	001 -20/22/01
Relinquished by	( .			
Received by				
Relinquished by				
Received by				
*Key: AQ - Aqueous SO - Soil WA - Waste	ste 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.



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

Date: 09-Nov-08 David Conner Battelle Memorial Institute 505 King Avenue Columbus, OH 43201 (619) 574-4827

# **CASE NARRATIVE**

Project:	G005862/JPL Grou	undwater Monitoring		
Work Order:	BMI08103002		Cooler Temp: 4 °C	
Alpha's	Sample ID	Client's Sample ID	Matrix	
08103	3002-01A	MW-14-5	Aqueous	
08103	3002-02A	MW-14-4	Aqueous	
08103	3002-03A	MW-14-3	Aqueous	
08103	3002-04A	MW-14-2	Aqueous	
08103	3002-05A	MW-14-1	Aqueous	
08103	3002-06A	DUPE-05-4Q08	Aqueous	
08103	3002-07A	TB-07-10/29/08	Aqueous	
08103	3002-08A	EB-07-10/29/08	Aqueous	

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

Walter Al Kandy Daulner

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

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

# Tentatively Identified Compounds - Volatile Organics by GC/MS

		an ang panganakan di saja ang kang ang ang kang pangang ang kang pang ting pang pang pang pang pang pang pang p		Estimated			
		Parameter	Estimated	Reporting	Date	Date	Date
			Concentration	Limit	Received	Sampled	Analyzed
Client ID : Lab ID :	<b>MW-14-5</b> BMI08103002-01A	Sulfur Dioxide	4.1	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	<b>MW-14-4</b> BMI08103002-02A	* * * None Found * * *	ND	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	<b>MW-14-3</b> BMI08103002-03A	* * * None Found * * *	ND	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	<b>MW-14-2</b> BMI08103002-04A	* * * None Found * * *	ND	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	<b>MW-14-1</b> BMI08103002-05A	* * * None Found * * *	ND	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	DUPE-05-4Q08 BMI08103002-06A	* * * None Found * * *	ND	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	<b>TB-07-10/29/08</b> BMI08103002-07A	* * * None Found * * *	ND	2.0 μg/L	10/30/08	10/29/08	11/04/08
Client ID : Lab ID :	<b>EB-07-10/29/08</b> BMI08103002-08A	2-Methyl-1-propene	4.4	2.0 μg/L	10/30/08	10/29/08	11/04/08

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Walter Arihm Roger Scholl Kandy Saulur

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.

11/12/08 **Report Date** 

Page 1 of 1



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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08103002-01A Client I.D. Number: MW-14-5 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

### Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	0.50	μg/L		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		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	101	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

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.

Walter Amilum

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

11/12/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08103002-02A Client I.D. Number: MW-14-4

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

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

### Volatile Organics by GC/MS

	Compound	Concentration	Reporting	Limit	****	Compound	Concentration	Reporting Li	mit
						Compound			
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	98	(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	96	(70-130)	%REC
32	1.3-Dichloropropane	ND	0.50	µg/L	- •		,		
33		ND	0.50	µg/L					
34	1,2-Dibromoethane (EDB)	ND	1.0	μg/L					
35		ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

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.

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

11/12/08

**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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08103002-03A Client I.D. Number: MW-14-3 
 Attn:
 David Conner

 Phone:
 (619) 574-4827

 Fax:
 (614) 458-6641

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

## Volatile Organics by GC/MS

Compound		Concentration	Reporting	Limit		Compound	Concentration	Reporting Limit	
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	1.6	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	101	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	0.64	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

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.

Walter Hinihum

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

11/12/08 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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08103002-04A Client I.D. Number: MW-14-2

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

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

### 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		2.5	µg/L
25	Trichloroethene	8.3	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	102	(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					
34	1,2-Dibromoethane (EDB)	ND	1.0	µg/L					
35	Tetrachloroethene	0.52	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Soular

Dalter Airihm

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 **Report Date** 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.

11/12/08

Page 1 of 1



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** 505 King Avenue Columbus, OH 43201 G005862/JPL Groundwater Monitoring Job#:

Alpha Analytical Number: BMI08103002-05A Client I.D. Number: MW-14-1

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

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

			Volati	le Orga	nics b	y 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	3.6	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	97	(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	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

34 1,2-Dibromoethane (EDB)

Tetrachloroethene

Roger Scholl

Kandy Saulur

1.0

0.50

µg/L µg/L

ND

ND

Walter Almihum

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.

11/12/08 **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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08103002-06A Client I.D. Number: DUPE-05-4Q08 Attn: David Conner Phone: (619) 574-4827 Fax: (614) 458-6641

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

### 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 (DBCI	P) ND	2.5	μg/L
25	Trichloroethene	1.4	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	98	(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	97	(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					
35	Tetrachloroethene	0.60	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Santur

Walter Arihm

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.

11/12/08

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 505 King Avenue Columbus, OH 43201 Job#: G005862/JPL Groundwater Monitoring

Alpha Analytical Number: BMI08103002-07A Client I.D. Number: TB-07-10/29/08 Attn:David ConnerPhone:(619) 574-4827Fax:(614) 458-6641

Sampled: 10/29/08 Received: 10/30/08 Analyzed: 11/04/08

### Volatile Organics by GC/MS

Compound		ound Concentration		Reporting Limit		Compound	Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	0.50	μg/L		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	96	(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	101	(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					
35	Tetrachloroethene	ND	0.50	µg/L					

Note: Analysis conducted using EPA Method 524.2 criteria.

ND = Not Detected

Roger Scholl

Kandy Sandmer

Walter Arihm

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.

11/12/08 Report Date