



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/08/10

Job: NGEM-As-Mob

Anions by IC
EPA Method 300.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-GW Lab ID: PES10120820-01A Chloride Date Sampled 12/07/10 14:00	2,200	500 mg/L	12/08/10 11:49	12/08/10 13:10

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAP unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

12/10/10

Report Date



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Job: NGEM-As-Mob

Perchlorate by Ion Chromatography EPA Method 314.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-GW				
Lab ID: PES10120820-01A Perchlorate	25,700	1,000 µg/L	12/08/10	12/09/10
Date Sampled 12/07/10 14:00				

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Attn: Cindy Schreier
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Date Received : 12/08/10

Job: NGEM-As-Mob

Metals by ICPMS EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID: NGEM-As-Mob-GW					
Lab ID : PES10120820-01A	Beryllium (Be)	ND	0.0040 mg/L	12/08/10	12/09/10
Date Sampled 12/07/10 14:00	Chromium (Cr)	ND	0.0050 mg/L	12/08/10	12/09/10
	Iron (Fe)	1.6	0.30 mg/L	12/08/10	12/09/10
	Nickel (Ni)	0.014	0.010 mg/L	12/08/10	12/09/10
	Copper (Cu)	ND	0.010 mg/L	12/08/10	12/09/10
	Zinc (Zn)	ND	0.10 mg/L	12/08/10	12/09/10
	Arsenic (As)	0.034	0.0050 mg/L	12/08/10	12/09/10
	Selenium (Se)	0.010	0.0050 mg/L	12/08/10	12/09/10
	Silver (Ag)	ND	0.0050 mg/L	12/08/10	12/09/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/08/10	12/09/10
	Antimony (Sb)	ND	0.0050 mg/L	12/08/10	12/09/10
	Mercury (Hg)	ND	0.0010 mg/L	12/08/10	12/09/10
	Thallium (Tl)	ND	0.0020 mg/L	12/08/10	12/09/10
	Lead (Pb)	ND	0.0050 mg/L	12/08/10	12/09/10

ND = Not Detected

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Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/08/10

Job: NGEM-As-Mob

Metals by ICPMS EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-SO				
Lab ID : PES10120820-02A	Beryllium (Be)	ND	1.0 mg/Kg	12/08/10
Date Sampled 12/07/10 13:00	Chromium (Cr)	33	1.0 mg/Kg	12/08/10
	Iron (Fe)	15,000	500 mg/Kg	12/08/10
	Nickel (Ni)	12	2.0 mg/Kg	12/08/10
	Copper (Cu)	15	2.0 mg/Kg	12/08/10
	Zinc (Zn)	31	20 mg/Kg	12/08/10
	Arsenic (As)	5.4	1.0 mg/Kg	12/08/10
	Selenium (Se)	ND	1.0 mg/Kg	12/08/10
	Silver (Ag)	ND	1.0 mg/Kg	12/08/10
	Cadmium (Cd)	ND	1.0 mg/Kg	12/08/10
	Antimony (Sb)	ND	1.0 mg/Kg	12/08/10
	Mercury (Hg)	ND	0.20 mg/Kg	12/08/10
	Thallium (Tl)	ND	1.0 mg/Kg	12/08/10
	Lead (Pb)	6.9	1.0 mg/Kg	12/08/10

Sample results were calculated on a wet weight basis.
ND = Not Detected

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12/10/10

Report Date



MWH

LABORATORIES

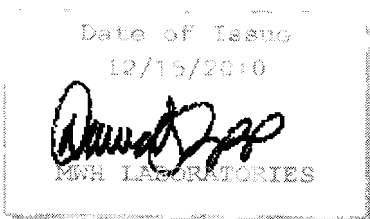
A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attention: Reyna Vallejo
Fax: 775-355-0406



DST: David S Tripp
Project Manager



Report#: 350549
Project: SUBCONTRACT
Group: Chlorate

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.



Acknowledgement of Samples Received

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attn: Reyna Vallejo
Phone: 775-355-1044

Customer Code: ALPHA-NV
Folder #: 350549
Project: SUBCONTRACT
Sample Group: Chlorate
Project Manager: David S Tripp
Phone: (626) 386-1158

The following samples were received from you on **December 08, 2010**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample ID	Sample Date
<u>201012080227</u>	NGEM-AS-MOB-GW	Dec 07, 2010 14:00
	Chlorate by IC	RUSH

Test Description



MWH

LABORATORIES

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750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

**Laboratory
Hits Report: 350549**

Samples Received on:
12/08/2010

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
12/09/2010 22:23	Chlorate by IC	<u>201012080227 NGEM-AS-MOB-GW</u>	28000		ug/L	1000



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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

**Laboratory Data
Report: 350549**

Samples Received on:
12/08/2010

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
NGEM-AS-MOB-GW (201012080227)					Sampled on 12/07/2010 1400			
EPA 300.0 - Disinfection ByProducts by 300.0								
12/09/2010	22:23	579260	(EPA 300.0)	Chlorate by IC	28000	ug/L	1000	100



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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Comments
Report: #350549



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Alpha Analytical, Inc.

Laboratory
QC Summary: 350549

QC Ref # 579260 - Disinfection ByProducts by 300.0
201012080227 NGEM-AS-MOB-GW

Analysis Date: 12/09/2010
Analyzed by: LUPE



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Laboratory
QC Report: 350549

Alpha Analytical, Inc.

Table with columns: QC Type, Analyte, Native, Spiked, Recovered, Units, Yield (%), Limits (%), RPD Limit (%), RPD%. Includes QC Ref# 579260 - Disinfection ByProducts by 300.0 by EPA 300.0 and Analysis Date: 12/09/2010.

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates
are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)



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Date:
16-Dec-10

QC Summary Report

Work Order:
10120820

Method Blank

Type: **MBLK** Test Code: **EPA Method 300.0**

File ID: 20				Batch ID: 25605				Analysis Date: 12/08/2010 12:14		
Sample ID: MB-25605	Units : mg/L			Run ID: IC_1_101208A				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	ND	0.5								

Laboratory Fortified Blank

Type: **LFB** Test Code: **EPA Method 300.0**

File ID: 21				Batch ID: 25605				Analysis Date: 12/08/2010 12:33		
Sample ID: LFB-25605	Units : mg/L			Run ID: IC_1_101208A				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	49.7	0.5	50		99	90	110			

Sample Matrix Spike

Type: **LFM** Test Code: **EPA Method 300.0**

File ID: 39				Batch ID: 25605				Analysis Date: 12/08/2010 18:06		
Sample ID: 10120802-11ALFM	Units : mg/L			Run ID: IC_1_101208A				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	87.7	0.5	50	52.41	71	80	120			M2

Sample Matrix Spike Duplicate

Type: **LFMD** Test Code: **EPA Method 300.0**

File ID: 40				Batch ID: 25605				Analysis Date: 12/08/2010 18:24		
Sample ID: 10120802-11ALFMD	Units : mg/L			Run ID: IC_1_101208A				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	89	0.5	50	52.41	73	80	120	87.67	1.5(15)	M2

Comments:

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

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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Date:
16-Dec-10

QC Summary Report

Work Order:
10120820

Method Blank

File ID: 14	Type: MBLK	Test Code: EPA Method 314.0								
Sample ID: MB-25607	Units : µg/L	Run ID: IC_3_101208A	Batch ID: 25607	Analysis Date: 12/08/2010 15:07						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND	2								

Laboratory Fortified Blank

File ID: 15	Type: LFB	Test Code: EPA Method 314.0								
Sample ID: LFB-25607	Units : µg/L	Run ID: IC_3_101208A	Batch ID: 25607	Analysis Date: 12/08/2010 15:25						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	27.4	2	25		109	85	115			

Sample Matrix Spike

File ID: 30	Type: LFM	Test Code: EPA Method 314.0								
Sample ID: 10120905-04ALFM	Units : µg/L	Run ID: IC_3_101208A	Batch ID: 25607	Analysis Date: 12/09/2010 18:34						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	25.8	2	25		0	103	80	120		

Sample Matrix Spike Duplicate

File ID: 31	Type: LFMD	Test Code: EPA Method 314.0								
Sample ID: 10120905-04ALFMD	Units : µg/L	Run ID: IC_3_101208A	Batch ID: 25607	Analysis Date: 12/09/2010 18:53						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	26.1	2	25		0	104	80	120	25.81	1.1(15)

Comments:

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Date:
16-Dec-10

QC Summary Report

Work Order:
10120820

Method Blank

Type: MBLK Test Code: EPA Method SW6020 / SW6020A

File ID: 120810.B\043_M.D\

Batch ID: 25608

Analysis Date: 12/09/2010 09:32

Sample ID: MB-25608

Units : mg/L

Run ID: ICP/MS_101209A

Prep Date: 12/08/2010 16:44

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Chromium (Cr)	ND	0.005								
Iron (Fe)	ND	0.3								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: LCS Test Code: EPA Method SW6020 / SW6020A

File ID: 120810.B\044_M.D\

Batch ID: 25608

Analysis Date: 12/09/2010 09:43

Sample ID: LCS-25608

Units : mg/L

Run ID: ICP/MS_101209A

Prep Date: 12/08/2010 16:44

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.242	0.004	0.25		97	80	120			
Chromium (Cr)	0.232	0.005	0.25		93	80	120			
Iron (Fe)	49.5	0.3	50		99	80	120			
Nickel (Ni)	0.242	0.01	0.25		97	80	120			
Copper (Cu)	0.235	0.01	0.25		94	80	120			
Zinc (Zn)	0.248	0.1	0.25		99	80	120			
Arsenic (As)	0.244	0.005	0.25		98	80	120			
Selenium (Se)	0.239	0.005	0.25		95	80	120			
Silver (Ag)	0.219	0.005	0.25		88	80	120			
Cadmium (Cd)	0.241	0.005	0.25		96	80	120			
Antimony (Sb)	0.245	0.005	0.25		98	80	120			
Mercury (Hg)	0.00434	0.001	0.005		87	80	120			
Thallium (Tl)	0.225	0.002	0.25		90	80	120			
Lead (Pb)	0.24	0.005	0.25		96	80	120			

Sample Matrix Spike

Type: MS Test Code: EPA Method SW6020 / SW6020A

File ID: 120810.B\049_M.D\

Batch ID: 25608

Analysis Date: 12/09/2010 10:12

Sample ID: 10120820-01AMS

Units : mg/L

Run ID: ICP/MS_101209A

Prep Date: 12/08/2010 16:44

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.241	0.004	0.25		0 96	75	125			
Chromium (Cr)	0.214	0.005	0.25		0 86	75	125			
Iron (Fe)	49.7	0.3	50	1.643	96	75	125			
Nickel (Ni)	0.253	0.01	0.25	0.01408	95	75	125			
Copper (Cu)	0.241	0.01	0.25	0	97	75	125			
Zinc (Zn)	0.273	0.1	0.25	0	109	75	125			
Arsenic (As)	0.29	0.005	0.25	0.03367	103	75	125			
Selenium (Se)	0.249	0.005	0.25	0.01041	96	75	125			
Silver (Ag)	0.216	0.005	0.25	0	87	75	125			
Cadmium (Cd)	0.245	0.005	0.25	0	98	75	125			
Antimony (Sb)	0.25	0.005	0.25	0	100	75	125			
Mercury (Hg)	0.00461	0.001	0.005	0	92	75	125			
Thallium (Tl)	0.232	0.002	0.25	0	93	75	125			
Lead (Pb)	0.251	0.005	0.25	0	100	75	125			



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Date:
16-Dec-10

QC Summary Report

Work Order:
10120820

Sample Matrix Spike Duplicate

Type: **MSD**

Test Code: **EPA Method SW6020 / SW6020A**

File ID: **120810.B\050_M.D**

Batch ID: **25608**

Analysis Date: **12/09/2010 10:17**

Sample ID: **10120820-01AMSD**

Units : **mg/L**

Run ID: **ICP/MS_101209A**

Prep Date: **12/08/2010 16:44**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.25	0.004	0.25	0	99.8	75	125	0.2411	3.5(20)	
Chromium (Cr)	0.225	0.005	0.25	0	90	75	125	0.2139	5.1(20)	
Iron (Fe)	51.1	0.3	50	1.643	99	75	125	49.68	2.7(20)	
Nickel (Ni)	0.266	0.01	0.25	0.01408	101	75	125	0.2527	5.1(20)	
Copper (Cu)	0.255	0.01	0.25	0	102	75	125	0.2413	5.6(20)	
Zinc (Zn)	0.29	0.1	0.25	0	116	75	125	0.2729	5.9(20)	
Arsenic (As)	0.305	0.005	0.25	0.03367	108	75	125	0.2902	4.9(20)	
Selenium (Se)	0.269	0.005	0.25	0.01041	103	75	125	0.2494	7.6(20)	
Silver (Ag)	0.228	0.005	0.25	0	91	75	125	0.2164	5.4(20)	
Cadmium (Cd)	0.259	0.005	0.25	0	104	75	125	0.2451	5.6(20)	
Antimony (Sb)	0.262	0.005	0.25	0	105	75	125	0.2501	4.5(20)	
Mercury (Hg)	0.00506	0.001	0.005	0	101	75	125	0.004611	9.3(20)	
Thallium (Tl)	0.251	0.002	0.25	0	100	75	125	0.2316	7.8(20)	
Lead (Pb)	0.266	0.005	0.25	0	107	75	125	0.2507	6.0(20)	

Comments:

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Date:
16-Dec-10

QC Summary Report

Work Order:
10120820

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **120810.B\020_M.D**

Batch ID: **25596**

Analysis Date: **12/08/2010 15:08**

Sample ID: **MB-25596**

Units : **mg/Kg**

Run ID: **ICP/MS_101208A**

Prep Date: **12/07/2010 10:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND		1							
Chromium (Cr)	ND		1							
Iron (Fe)	ND	500								
Nickel (Ni)	ND		2							
Copper (Cu)	ND		2							
Zinc (Zn)	ND	20								
Arsenic (As)	ND		1							
Selenium (Se)	ND		1							
Silver (Ag)	ND		1							
Cadmium (Cd)	ND		1							
Antimony (Sb)	ND		1							
Mercury (Hg)	ND	0.2								
Thallium (Tl)	ND		1							
Lead (Pb)	ND		1							

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **120810.B\021_M.D**

Batch ID: **25596**

Analysis Date: **12/08/2010 15:14**

Sample ID: **LCS-25596**

Units : **mg/Kg**

Run ID: **ICP/MS_101208A**

Prep Date: **12/07/2010 10:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	23.9	1	25		96	80	120			
Chromium (Cr)	24.2	1	25		97	80	120			
Iron (Fe)	4730	500	5000		95	80	120			
Nickel (Ni)	23.9	2	25		95	80	120			
Copper (Cu)	24.5	2	25		98	80	120			
Zinc (Zn)	24	20	25		96	80	120			
Arsenic (As)	23.4	1	25		94	80	120			
Selenium (Se)	22.9	1	25		92	80	120			
Silver (Ag)	21.7	1	25		87	80	120			
Cadmium (Cd)	23.5	1	25		94	80	120			
Antimony (Sb)	21.7	1	25		87	80	120			
Mercury (Hg)	0.44	0.2	0.5		88	80	120			
Thallium (Tl)	22.2	1	25		89	80	120			
Lead (Pb)	23.3	1	25		93	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **120810.B\026_M.D**

Batch ID: **25596**

Analysis Date: **12/08/2010 15:43**

Sample ID: **10120622-01AMS**

Units : **mg/Kg**

Run ID: **ICP/MS_101208A**

Prep Date: **12/07/2010 10:43**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	24.5	1	25		0	98	75	125		
Chromium (Cr)	26.2	1	25		8.6	70	75	125		M2
Iron (Fe)	21000	500	5000		22960	-40	75	125		M3
Nickel (Ni)	27.1	2	25		7.724	77	75	125		
Copper (Cu)	54.2	2	25		34.74	78	75	125		
Zinc (Zn)	104	20	25		91.08	50	75	125		M2
Arsenic (As)	25	1	25		1.543	94	75	125		
Selenium (Se)	22.6	1	25		0	90	75	125		
Silver (Ag)	20.4	1	25		0	82	75	125		
Cadmium (Cd)	23.2	1	25		0	93	75	125		
Antimony (Sb)	23.1	1	25		0	92	75	125		
Mercury (Hg)	0.467	0.2	0.5		0	93	75	125		
Thallium (Tl)	22.4	1	25		0	90	75	125		
Lead (Pb)	27.7	1	25		5.768	88	75	125		



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
16-Dec-10

QC Summary Report

Work Order:
10120820

Sample Matrix Spike Duplicate

Type: MSD Test Code: EPA Method SW6020 / SW6020A

File ID: 120810.B\027_M.D\

Batch ID: 25596

Analysis Date: 12/08/2010 15:48

Sample ID: 10120622-01AMSD

Units : mg/Kg

Run ID: ICP/MS_101208A

Prep Date: 12/07/2010 10:43

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	25.3	1	25	0	101	75	125	24.5	3.1(20)	
Chromium (Cr)	28.5	1	25	8.6	80	75	125	26.22	8.5(20)	
Iron (Fe)	22900	500	5000	22960	-0.6	75	125	20980	8.9(20)	M3
Nickel (Ni)	28.4	2	25	7.724	83	75	125	27.07	4.6(20)	
Copper (Cu)	55	2	25	34.74	81	75	125	54.24	1.4(20)	
Zinc (Zn)	109	20	25	91.08	72	75	125	103.5	5.4(20)	M2
Arsenic (As)	24.7	1	25	1.543	93	75	125	24.97	1.1(20)	
Selenium (Se)	22.6	1	25	0	90	75	125	22.62	0.0(20)	
Silver (Ag)	21.7	1	25	0	87	75	125	20.4	6.2(20)	
Cadmium (Cd)	23.8	1	25	0	95	75	125	23.24	2.6(20)	
Antimony (Sb)	23.4	1	25	0	94	75	125	23.11	1.4(20)	
Mercury (Hg)	0.471	0.2	0.5	0	94	75	125	0.4665	1.0(20)	
Thallium (Tl)	23.1	1	25	0	92	75	125	22.44	2.9(20)	
Lead (Pb)	28.4	1	25	5.768	91	75	125	27.66	2.6(20)	

Comments:

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

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

Billing Information :

CHAIN-OF-CUSTODY RECORD

#2

Page: 1 of 1

Alpha Analytical, Inc.

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

TEL: (775) 355-1044 FAX: (775) 355-0406

NV RUSH!

WorkOrder : PES10120820

Report Due By : 5:00 PM On : 10-Dec-10

Client:
Prima Environmental
5070 Robert J. Mathews Parkway
Suite 300
El Dorado Hills, CA 95762

Report Attention	Phone Number	EEmail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : RG

PO :
Client's COC # : 32693 Job : NGEM-As-Mob

Cooler Temp	Samples Received	Date Printed
4 °C	08-Dec-10	10-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests					Sample Remarks	
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A_Q	METALS_S_O		
PES10120820-01A	NGEM-As-Mob-GW	AQ	12/07/10 14:00	4	2	2	Cl, Chlorate	Cl, Chlorate	Perchlorate	Special List			
PES10120820-02A	NGEM-As-Mob-SO	SO	12/07/10 13:00	1	0	2				Special List			

Comments: 48 HR TAT. Chain split into two separate workorders due to different TATs. No security seals. Blue ice. High salts, high Perchlorate expected. Chlorate subbed to Montgomery Watson directly by client. Metals filtered by client. Amended 12/9/10 15:15 to sub : Perc. to CLS as preliminary result due to instrument being down, per Randy. Cindy is aware CLS is not NV certified. Alpha will analyze Perc. when instrument is available. Due 12/13/10.KM Amended #2 12/10/10 09:30 to cancel sub Perc to CLS, per Randy.KM

Signature	Print Name	Company	Date/Time
<i>K Murray</i>	K Murray	Alpha Analytical, Inc.	12/10/10 0930

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

Billing Information :

CHAIN-OF-CUSTODY RECORD

NV

Alpha Analytical, Inc.

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

TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : PES10120820

Report Due By : 5:00 PM On : 10-Dec-10

Perchlorate due 12-13-10

Client:
Prima Environmental
5070 Robert J. Mathews Parkway
Suite 300
El Dorado Hills, CA 95762

Report Attention	Phone Number	EEmail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : RG

PO :
Client's COC # : 32693 Job : NGEM-As-Mob

Cooler Temp	Samples Received	Date Printed
4 °C	08-Dec-10	09-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests				Sample Remarks
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A_Q	
PES10120820-01A	NGEM-As-Mob-GW	AQ	12/07/10 14:00	4	2	2	Cl, Chlorate	Cl, Chlorate	Perchlorate	Special List	
PES10120820-02A	NGEM-As-Mob-SO	SO	12/07/10 13:00	1	0	2				Special List	

Comments: 48 HR TAT. Chain split into two separate workorders due to different TATs. No security seals. Blue ice. High salts, high Perchlorate expected. Chlorate subbed to Montgomery Watson directly by client. Metals filtered by client. Amended 12/9/10 15:15 to sub : Perc. to CLS as preliminary result due to instrument being down, per Randy. Cindy is aware CLS is not NV certified. Alpha will analyze Perc. when instrument is available. Due 12/13/10.KM

Logged in by:	Signature	Print Name	Company	Date/Time
	<i>K Murray</i>	K Murray	Alpha Analytical, Inc.	12/9/10 1515

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

Billing Information :

CHAIN-OF-CUSTODY RECORD

NV **RUSH!!** Page: 1 of 1

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

WorkOrder : PES10120820
Report Due By : 5:00 PM On : 10-Dec-10

Client:
 Prima Environmental
 5070 Robert J. Mathews Parkway
 Suite 300
 El Dorado Hills, CA 95762

Report Attention	Phone Number	EEmail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : RG

PO :
 Client's COC # : 32693 Job : NGEM-As-Mob

Cooler Temp Samples Received Date Printed
 4 °C 08-Dec-10 08-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests				Sample Remarks	
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A_Q		METALS_S_O
PES10120820-01A	NGEM-As-Mob-GW	AQ	12/07/10 14:00	3	1	2	Cl, Chlorate	Cl, Chlorate	Perchlorate	Special List		
PES10120820-02A	NGEM-As-Mob-SO	SO	12/07/10 13:00	1	0	2				Special List		

Comments: 48 HR TAT. Chain split into two separate workorders due to different TATs. No security seals. Blue ice. High salts, high Perchlorate expected. Chlorate subbed to Montgomery Watson directly by client. Metals filtered by client. :

Signature	Print Name	Company	Date/Time
<i>K Murray</i>	K Murray	Alpha Analytical, Inc.	12/8/10 1000

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

Billing Information:

Comp: **PRIMA ENVIRONMENTAL, Inc.**
 Attn: **5070 Robert J. Mathews Parkway, Suite 300**
 Address: **El Dorado Hills, CA 95762**
 City, State: **PH: 916-939-7300 FAX: 916 939 7398**
 Phone: **data@primenvironmental.com**



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?

AZ CA NV WA **DOD Site**
 ID OR OTHER Page # 1 of 1

32093

Consultant / Client Name			Job #			Job Name			Analyses Required				Data Validation Level: III or IV			
Address			Report Attention / Project Manager													
City, State, Zip			Name: <u>Cindy Schreier</u>			Email:							EDD / EDF? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Phone:			Mobile:										Global ID #			
Time Sampled	Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number (Office Use Only)	Sample Description	TAT	Field Filtered	# Containers**	Chloride (300) <input checked="" type="checkbox"/>	Nitrate (300) <input checked="" type="checkbox"/>	6020* <input checked="" type="checkbox"/>	Perchlorate	SPLP* <input checked="" type="checkbox"/>	TOC	Chlorate (add to per)	REMARKS
1400	12/7/10	AQ		PES10120820-01	NGEM-AS-Mob-GW	48hrs	Y	2-P, 1-OT	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	*6020 metals =
					NGEM-AS-Mob-GW	48hrs	N	3V				<input checked="" type="checkbox"/>				Sb, As, Be, Cd,
					NGEM-AS-Mob-GW	Std	Y	1P		<input checked="" type="checkbox"/>						Cr, Cu, Fe, Pb,
					NGEM-AS-Mob-GW	Std	Y	1OT						<input checked="" type="checkbox"/>		Hg, Ni, Se, Ag,
1300		SO			NGEM-AS-Mob-So ²	Std		1S				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Tl, Zn
				02	NGEM-AS-Mob-So ²	48hrs		1S			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			*SPLP = Sb, As,
																Be, Cd, Cr, Cu,
																Fe, Pb, Hg,
																Ni, Se, Ag, Tl,
																Zn, Cr (VI)
																<input type="checkbox"/> one soil jar for both

ADDITIONAL INSTRUCTIONS:

High Salts, high Perchlorate expected. Chlorate sent to MWH

one soil jar for all soil tests

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: RG

Relinquished by: (Signature/Affiliation) <u>PRIMA RG</u>	Received by: (Signature/Affiliation) <u>Fed EX</u>	Date: <u>12/7/10</u>	Time: <u>~1800</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation) <u>K Murray / AA</u>	Date: <u>12/8/10</u>	Time: <u>0925</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:

*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.



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/08/10

Job: NGEM-As-Mob

Anions by IC
EPA Method 300.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-GW				
Lab ID: PES10120821-01A Nitrate (NO3) - N	8.1	1.3 mg/L	12/08/10 11:49	12/08/10 13:10
Date Sampled 12/07/10 14:00				

Roger Scholl

Randy Gardner

Walter Hinchman

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

e
12/21/10

Report Date



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/08/10

Job: NGEM-As-Mob

Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-SO				
Lab ID : PES10120821-02A	Beryllium (Be)	ND	0.10 mg/L	12/14/10
Date Sampled 12/07/10 13:00	Chromium (Cr)	ND	0.10 mg/L	12/14/10
	Iron (Fe)	9.5	0.10 mg/L	12/14/10
	Nickel (Ni)	ND	0.10 mg/L	12/14/10
	Copper (Cu)	0.27	0.20 mg/L	12/14/10
	Zinc (Zn)	ND	2.0 mg/L	12/14/10
	Arsenic (As)	ND	0.10 mg/L	12/14/10
	Selenium (Se)	ND	0.10 mg/L	12/14/10
	Silver (Ag)	ND	0.10 mg/L	12/14/10
	Cadmium (Cd)	ND	0.10 mg/L	12/14/10
	Antimony (Sb)	ND	0.10 mg/L	12/14/10
	Mercury (Hg)	ND	0.10 mg/L	12/14/10
	Thallium (Tl)	ND	0.10 mg/L	12/14/10
	Lead (Pb)	ND	0.10 mg/L	12/14/10

This analysis was performed on an SPLP extract using D.I. water.
This replaces the report originally signed 12/21/10.

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 / Carson, CA • (714) 386-2901 • info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1/6/11

Report Date



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/08/10

Job: NGEM-As-Mob

Chromium VI
EPA Method 7196A/SM3500Cr-D

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-SO				
Lab ID : PES10120821-02A Chromium (Cr), Hexavalent (+6)	ND	0.40 mg/L	12/14/10 12:36	12/14/10 12:36
Date Sampled 12/07/10 13:00				

Note: Vanadium, Iron, Molybdenum, and Mercury may enhance the absorption measured at the same wavelength as Cr+6.
This analysis was performed on an SPLP extract using D.I. water.
This replaces the report originally signed 12/21/10.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1/6/11

Report Date



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/08/10

Job: NGEM-As-Mob

Total Organic Carbon as NonPurgeable Organic Carbon
EPA Method SW9060 / SM5310C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-GW				
Lab ID: PES10120821-01A Total Organic Carbon	4.4	1.0 mg/L	12/14/10	12/14/10
Date Sampled 12/07/10 14:00				

Roger Scholl

Randy Gardner

Walter Hinchman

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

12/21/10

Report Date



Alpha Analytical, Inc.

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

Date:
21-Dec-10

QC Summary Report

Work Order:
10120821

Method Blank

File ID: 20	Type MBLK	Test Code: EPA Method 300.0								
Sample ID: MB-25605	Units : mg/L	Run ID: IC_1_101208A	Batch ID: 25605	Analysis Date: 12/08/2010 12:14				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrate (NO3) - N	ND	0.25								

Laboratory Fortified Blank

File ID: 21	Type LFB	Test Code: EPA Method 300.0								
Sample ID: LFB-25605	Units : mg/L	Run ID: IC_1_101208A	Batch ID: 25605	Analysis Date: 12/08/2010 12:33				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrate (NO3) - N	5.29	0.25	5		106	90	110			

Sample Matrix Spike

File ID: 39	Type LFM	Test Code: EPA Method 300.0								
Sample ID: 10120802-11ALFM	Units : mg/L	Run ID: IC_1_101208A	Batch ID: 25605	Analysis Date: 12/08/2010 18:06				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrate (NO3) - N	6.78	0.25	5	1.539	105	80	120			

Sample Matrix Spike Duplicate

File ID: 40	Type LFMD	Test Code: EPA Method 300.0								
Sample ID: 10120802-11ALFMD	Units : mg/L	Run ID: IC_1_101208A	Batch ID: 25605	Analysis Date: 12/08/2010 18:24				Prep Date: 12/08/2010 11:49		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Nitrate (NO3) - N	6.9	0.25	5	1.539	107	80	120	6.779	1.7(15)	

Comments:

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



Alpha Analytical, Inc.

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Date:
21-Dec-10

QC Summary Report

Work Order:
10120821

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 121310.B\067_M.D\

Batch ID: **25627**

Analysis Date: **12/13/2010 22:19**

Sample ID: **MB-25627**

Units : mg/L

Run ID: **ICP/MS_101213C**

Prep Date: **12/13/2010 10:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Chromium (Cr)	ND	0.005								
Iron (Fe)	ND	0.3								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 121310.B\068_M.D\

Batch ID: **25627**

Analysis Date: **12/13/2010 22:25**

Sample ID: **LCS-25627**

Units : mg/L

Run ID: **ICP/MS_101213C**

Prep Date: **12/13/2010 10:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.261	0.004	0.25		104	80	120			
Chromium (Cr)	0.243	0.005	0.25		97	80	120			
Iron (Fe)	48.7	0.3	50		97	80	120			
Nickel (Ni)	0.257	0.01	0.25		103	80	120			
Copper (Cu)	0.245	0.01	0.25		98	80	120			
Zinc (Zn)	0.265	0.1	0.25		106	80	120			
Arsenic (As)	0.256	0.005	0.25		102	80	120			
Selenium (Se)	0.254	0.005	0.25		102	80	120			
Silver (Ag)	0.231	0.005	0.25		92	80	120			
Cadmium (Cd)	0.263	0.005	0.25		105	80	120			
Antimony (Sb)	0.262	0.005	0.25		105	80	120			
Mercury (Hg)	0.00425	0.001	0.005		85	80	120			
Thallium (Tl)	0.23	0.002	0.25		92	80	120			
Lead (Pb)	0.262	0.005	0.25		105	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 121310.B\073_M.D\

Batch ID: **25627**

Analysis Date: **12/13/2010 22:53**

Sample ID: **10121023-01AMS**

Units : mg/L

Run ID: **ICP/MS_101213C**

Prep Date: **12/13/2010 10:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.273	0.004	0.25		0	109	75	125		
Chromium (Cr)	0.238	0.005	0.25		0	95	75	125		
Iron (Fe)	65.6	0.3	50		12.92	105	75	125		
Nickel (Ni)	0.258	0.01	0.25		0	103	75	125		
Copper (Cu)	0.241	0.01	0.25		0	96	75	125		
Zinc (Zn)	0.27	0.1	0.25		0	108	75	125		
Arsenic (As)	0.264	0.005	0.25		0	105	75	125		
Selenium (Se)	0.259	0.005	0.25		0	104	75	125		
Silver (Ag)	0.226	0.005	0.25		0	90	75	125		
Cadmium (Cd)	0.259	0.005	0.25		0	104	75	125		
Antimony (Sb)	0.258	0.005	0.25		0	103	75	125		
Mercury (Hg)	0.00439	0.001	0.005		0	88	75	125		
Thallium (Tl)	0.237	0.002	0.25		0	95	75	125		
Lead (Pb)	0.259	0.005	0.25		0	103	75	125		



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Date:
21-Dec-10

QC Summary Report

Work Order:
10120821

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW6020 / SW6020A

File ID: 121310.B\074_M.D\

Batch ID: 25627

Analysis Date: 12/13/2010 22:59

Sample ID: 10121023-01AMSD

Units : mg/L

Run ID: ICP/MS_101213C

Prep Date: 12/13/2010 10:49

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.274	0.004	0.25	0	110	75	125	0.2731	0.4(20)	
Chromium (Cr)	0.241	0.005	0.25	0	96	75	125	0.2384	1.1(20)	
Iron (Fe)	68	0.3	50	12.92	110	75	125	65.62	3.6(20)	
Nickel (Ni)	0.261	0.01	0.25	0	104	75	125	0.258	1.2(20)	
Copper (Cu)	0.245	0.01	0.25	0	98	75	125	0.2411	1.5(20)	
Zinc (Zn)	0.274	0.1	0.25	0	109	75	125	0.2696	1.5(20)	
Arsenic (As)	0.263	0.005	0.25	0	105	75	125	0.2636	0.3(20)	
Selenium (Se)	0.258	0.005	0.25	0	103	75	125	0.2592	0.4(20)	
Silver (Ag)	0.227	0.005	0.25	0	91	75	125	0.2257	0.5(20)	
Cadmium (Cd)	0.261	0.005	0.25	0	104	75	125	0.2592	0.6(20)	
Antimony (Sb)	0.262	0.005	0.25	0	105	75	125	0.2575	1.7(20)	
Mercury (Hg)	0.00454	0.001	0.005	0	91	75	125	0.004388	3.3(20)	
Thallium (Tl)	0.239	0.002	0.25	0	96	75	125	0.2372	0.8(20)	
Lead (Pb)	0.262	0.005	0.25	0	105	75	125	0.2587	1.2(20)	

Comments:

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Date:
20-Dec-10

QC Summary Report

Work Order:
10120821

Method Blank

File ID:	Type MBLK	Test Code: EPA Method 7196A/SM3500Cr-D	Batch ID: W1214CR	Analysis Date: 12/14/2010 12:34						
Sample ID: MBLK-W1214CR	Units : mg/L	Run ID: WETLAB_101214F	Prep Date: 12/14/2010 12:34							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	ND	0.02								

Laboratory Control Spike

File ID:	Type LCS	Test Code: EPA Method 7196A/SM3500Cr-D	Batch ID: W1214CR	Analysis Date: 12/14/2010 12:33						
Sample ID: LCS-W1214CR	Units : mg/L	Run ID: WETLAB_101214F	Prep Date: 12/14/2010 12:33							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	0.314	0.02	0.3		105	85	115			

Sample Matrix Spike

File ID:	Type MS	Test Code: EPA Method 7196A/SM3500Cr-D	Batch ID: W1214CR	Analysis Date: 12/14/2010 12:35						
Sample ID: 10121404-01AMS	Units : mg/L	Run ID: WETLAB_101214F	Prep Date: 12/14/2010 12:35							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	0.322	0.02	0.3	0.024	99	85	115			

Sample Matrix Spike Duplicate

File ID:	Type MSD	Test Code: EPA Method 7196A/SM3500Cr-D	Batch ID: W1214CR	Analysis Date: 12/14/2010 12:35						
Sample ID: 10121404-01AMSD	Units : mg/L	Run ID: WETLAB_101214F	Prep Date: 12/14/2010 12:35							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	0.336	0.02	0.3	0.024	104	85	115	0.322	4.3(20)	

Comments:

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Date:
21-Dec-10

QC Summary Report

Work Order:
10120821

Method Blank

File ID:	Type	MBLK	Test Code:	EPA Method SW9060 / SM5310C						
Sample ID:	MBLK-25631	Units : mg/L	Run ID:	TOC_101214A	Batch ID:	25631	Analysis Date:	12/14/2010 11:38		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	ND		1							

Laboratory Control Spike

File ID:	Type	LCS	Test Code:	EPA Method SW9060 / SM5310C						
Sample ID:	LCS-25631	Units : mg/L	Run ID:	TOC_101214A	Batch ID:	25631	Analysis Date:	12/14/2010 12:05		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	4.69		1	5	94	74	126			

Sample Matrix Spike

File ID:	Type	MS	Test Code:	EPA Method SW9060 / SM5310C						
Sample ID:	10120821-01AMS	Units : mg/L	Run ID:	TOC_101214A	Batch ID:	25631	Analysis Date:	12/14/2010 13:03		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	6.83		1	2.5	4.364	98	56	137		

Sample Matrix Spike Duplicate

File ID:	Type	MSD	Test Code:	EPA Method SW9060 / SM5310C						
Sample ID:	10120821-01AMSD	Units : mg/L	Run ID:	TOC_101214A	Batch ID:	25631	Analysis Date:	12/14/2010 13:32		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	6.87		1	2.5	4.364	100	56	137	6.825	0.7(20)

Comments:

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

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

TEL: (775) 355-1044 FAX: (775) 355-0406

NV

WorkOrder : PES10120821

Report Due By : 5:00 PM On : 22-Dec-10

Client:
 Prima Environmental
 5070 Robert J. Mathews Parkway
 Suite 300
 El Dorado Hills, CA 95762

Report Attention	Phone Number	EMail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : RG

PO :

Client's COC # : 32693

Job : NGEM-As-Mob

Cooler Temp	Samples Received	Date Printed
4 °C	08-Dec-10	08-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests					Sample Remarks	
							300_0_W	METALS_A Q	METALS_C R6_W	SPLPMOD_SV_PREP	TOC_W		
PES10120821-01A	NGEM-As-Mob-GW	AQ	12/07/10 14:00	2	0	10	NO3				TOC		
PES10120821-02A	NGEM-As-Mob-SO	SO	12/07/10 13:00	1	0	10		SPLP Special List	SPLP Cr6+	SPLP - MODIFIED (DI H2O)			

Comments: Chain split into two separate workorders due to different TATs. No security seals. Blue ice. High salts, high Perchlorate expected. TOC pH=2. :

	Signature	Print Name	Company	Date/Time
Logged in by:		K Murray	Alpha Analytical, Inc.	12/8/10 1020


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

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

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

Comp: **PRIMA ENVIRONMENTAL, Inc.**
 Attn: **5070 Robert J. Mathews Parkway, Suite 300**
 Address: **EI Dorado Hills, CA 95762**
 City: **PH: 916-939-7300 FAX: 916 939 7398**
 Phone: **data@primenvironmental.com**



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?
 AZ CA NV WA DOD Site
 ID OR OTHER Page # 1 of 1

Consultant / Client Name				Job #	Job Name	Analyses Required						Data Validation Level: III or IV					
Address				Report Attention / Project Manager		Chloride (300) <input checked="" type="checkbox"/>	Nitrate (300) <input checked="" type="checkbox"/>	6020* <input checked="" type="checkbox"/>	Perchlorate <input type="checkbox"/>	SPLP* <input checked="" type="checkbox"/>	TOC <input type="checkbox"/>	EDD / EDF? YES <input type="checkbox"/> NO <input type="checkbox"/>					
City, State, Zip				Name: <u>Cindy Schreier</u>								REMARKS					
P.O. #				Email:								Global ID #					
Time Sampled	Date Sampled	Matrix* See Key Below	Lab ID Number	Office (Use Only)	Sample Description	TAT	Field Filtered	# Containers**									
1400	12/7/10	AQ			NGEM-AS-Mob-GW	48hrs	Y	2-P	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	*6020 metals =				
					NGEM-AS-Mob-GW	48hrs	N	3V		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sb, As, Be, Cd,				
			PES10120821-01		NGEM-AS-Mob-GW	std	Y	1P	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cr, Cu, Fe, Pb,				
					NGEM-AS-Mob-GW	std	Y	1OT		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hg, Ni, Se, Ag,				
1300		SO			NGEM-AS-Mob-So [♥]	std		1S		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tl, Zn				
					NGEM-AS-Mob-So [♥]	48hrs		1S		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	*SPLP = Sb, As,				
												Be, Cd, Cr, Cu,					
												Fe, Pb, Hg,					
												Ni, Se, Ag, Tl,					
												Zn, Cr (VI)					

ADDITIONAL INSTRUCTIONS:

High Salts, high Perchlorate expected. Chlorate sent to MWH

♥ one soil jar for all soil tests

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: PLG

Relinquished by: (Signature/Affiliation) <u>PRIMA PLG</u>	Received by: (Signature/Affiliation) <u>Fed EX</u>	Date: <u>12/7/10</u>	Time: <u>~1800</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation) <u>K Murray IAM</u>	Date: <u>12/8/10</u>	Time: <u>1005</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:

*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



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/17/10

Job: NGEM-As-Mob

Anions by IC
EPA Method 300.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-T0				
Lab ID: PES10121720-01A Chloride	2,200	500 mg/L	12/21/10 11:56	12/21/10 14:43
Date Sampled 12/16/10 11:00 Nitrate (NO3) - N	11 *	0.25 mg/L	12/21/10 11:56	12/21/10 17:30
Client ID: NGEM-As-Mob-Con-A				
Lab ID: PES10121720-02A Chloride	2,200	500 mg/L	12/21/10 11:56	12/21/10 15:01
Date Sampled 12/16/10 11:00 Nitrate (NO3) - N	10 *	0.25 mg/L	12/21/10 11:56	12/21/10 17:48
Client ID: NGEM-As-Mob-EOS-hi-A				
Lab ID: PES10121720-03A Chloride	2,200	500 mg/L	12/21/10 11:56	12/21/10 15:20
Date Sampled 12/16/10 11:00 Nitrate (NO3) - N	2.0 *	0.25 mg/L	12/21/10 11:56	12/21/10 18:06
Client ID: NGEM-As-Mob-EOS-lo-A				
Lab ID: PES10121720-04A Chloride	2,200	500 mg/L	12/21/10 11:56	12/21/10 15:38
Date Sampled 12/16/10 11:00 Nitrate (NO3) - N	1.8 *	0.25 mg/L	12/21/10 11:56	12/21/10 18:24

*Nitrate was analyzed on a preserved sample. The accuracy of Nitrate may be biased high due to the possible oxidation of Nitrite to Nitrate.

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1/3/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/17/10

Job: NGEM-As-Mob

Perchlorate by Ion Chromatography
EPA Method 314.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-T0 Lab ID: PES10121720-01A Perchlorate Date Sampled 12/16/10 11:00	25,100	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-Con-A Lab ID: PES10121720-02A Perchlorate Date Sampled 12/16/10 11:00	23,100	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-EOS-hi-A Lab ID: PES10121720-03A Perchlorate Date Sampled 12/16/10 11:00	23,700	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-EOS-lo-A Lab ID: PES10121720-04A Perchlorate Date Sampled 12/16/10 11:00	22,300	2,000 µg/L	12/22/10	12/22/10

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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1/3/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/17/10

Job: NGEM-As-Mob

Metals by ICPMS EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID: NGEM-As-Mob-T0					
Lab ID : PES10121720-01A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/16/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.0	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.011	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	ND	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.037	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.022	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10
Client ID: NGEM-As-Mob-Con-A					
Lab ID : PES10121720-02A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/16/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.0	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.011	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	ND	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.032	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.022	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10



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Client ID: **NGEM-As-Mob-EOS-hi-A**

Lab ID : PES10121720-03A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/16/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.3	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.019	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	0.019	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.036	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.025	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10

Client ID: **NGEM-As-Mob-EOS-lo-A**

Lab ID : PES10121720-04A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/16/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.2	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.016	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	0.017	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.039	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.025	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1/3/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/17/10

Job: NGEM-As-Mob

Total Organic Carbon as NonPurgeable Organic Carbon
EPA Method SW9060 / SM5310C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-T0 Lab ID: PES10121720-01A Total Organic Carbon Date Sampled 12/16/10 11:00	3.8 *	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Con-A Lab ID: PES10121720-02A Total Organic Carbon Date Sampled 12/16/10 11:00	3.4 *	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-EOS-hi-A Lab ID: PES10121720-03A Total Organic Carbon Date Sampled 12/16/10 11:00	160 *	40 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-EOS-lo-A Lab ID: PES10121720-04A Total Organic Carbon Date Sampled 12/16/10 11:00	27 *	4.0 mg/L	12/29/10	12/29/10

*Sample was field filtered by the client and the value represents DOC

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 • Carson, CA • (714) 386-2901 • info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1/9/11

Report Date



Alpha Analytical, Inc.

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Date:
28-Dec-10

QC Summary Report

Work Order:
10121720

Method Blank

Type **MBLK** Test Code: **EPA Method 300.0**

File ID: **20**

Batch ID: **25681**

Analysis Date: **12/21/2010 11:56**

Sample ID: **MB-25681**

Units : **mg/L**

Run ID: **IC_1_101221A**

Prep Date: **12/21/2010 11:56**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	ND	0.5								
Nitrate (NO3) - N	ND	0.25								

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 300.0**

File ID: **21**

Batch ID: **25681**

Analysis Date: **12/21/2010 12:15**

Sample ID: **LFB-25681**

Units : **mg/L**

Run ID: **IC_1_101221A**

Prep Date: **12/21/2010 11:56**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	49.6	0.5	50		99	90	110			
Nitrate (NO3) - N	5.16	0.25	5		103	90	110			

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 300.0**

File ID: **80**

Batch ID: **25681**

Analysis Date: **12/22/2010 06:28**

Sample ID: **10122145-13ALFM**

Units : **mg/L**

Run ID: **IC_1_101221A**

Prep Date: **12/21/2010 11:56**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	59.4	0.5	50	13.31	92	80	120			
Nitrate (NO3) - N	6.4	0.25	5	1.641	95	80	120			

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 300.0**

File ID: **81**

Batch ID: **25681**

Analysis Date: **12/22/2010 06:46**

Sample ID: **10122145-13ALFMD**

Units : **mg/L**

Run ID: **IC_1_101221A**

Prep Date: **12/21/2010 11:56**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	60.4	0.5	50	13.31	94	80	120	59.42	1.6(15)	
Nitrate (NO3) - N	6.53	0.25	5	1.641	98	80	120	6.403	1.9(15)	

Comments:

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



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Date:
28-Dec-10

QC Summary Report

Work Order:
10121720

Method Blank

Type **MBLK** Test Code: **EPA Method 314.0**

File ID: **14**

Batch ID: **25691**

Analysis Date: **12/22/2010 12:54**

Sample ID: **MB-25691**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND		2							

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 314.0**

File ID: **15**

Batch ID: **25691**

Analysis Date: **12/22/2010 13:13**

Sample ID: **LFB-25691**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.8	2	25		99	85	115			

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 314.0**

File ID: **19**

Batch ID: **25691**

Analysis Date: **12/22/2010 14:26**

Sample ID: **10122220-04ALFM**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.6	2	25	0	98	80	120			

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 314.0**

File ID: **20**

Batch ID: **25691**

Analysis Date: **12/22/2010 14:45**

Sample ID: **10122220-04ALFMD**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.1	2	25	0	96	80	120	24.56	2.1(15)	

Comments:

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Date:
28-Dec-10

QC Summary Report

Work Order:
10121720

Method Blank

File ID: 122110.B\025_M.D\

Sample ID: MB-25677

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Chromium (Cr)	ND	0.005								
Iron (Fe)	ND	0.3								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

File ID: 122110.B\026_M.D\

Sample ID: LCS-25677

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.255	0.004	0.25		102	80	120			
Chromium (Cr)	0.244	0.005	0.25		98	80	120			
Iron (Fe)	51.4	0.3	50		103	80	120			
Nickel (Ni)	0.256	0.01	0.25		102	80	120			
Copper (Cu)	0.257	0.01	0.25		103	80	120			
Zinc (Zn)	0.256	0.1	0.25		102	80	120			
Arsenic (As)	0.257	0.005	0.25		103	80	120			
Selenium (Se)	0.256	0.005	0.25		103	80	120			
Silver (Ag)	0.235	0.005	0.25		94	80	120			
Cadmium (Cd)	0.259	0.005	0.25		104	80	120			
Antimony (Sb)	0.261	0.005	0.25		105	80	120			
Mercury (Hg)	0.00443	0.001	0.005		89	80	120			
Thallium (Tl)	0.221	0.002	0.25		88	80	120			
Lead (Pb)	0.254	0.005	0.25		101	80	120			

Sample Matrix Spike

File ID: 122110.B\031_M.D\

Sample ID: 10121845-01AMS

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.287	0.004	0.25	0	115	75	125			
Chromium (Cr)	0.257	0.005	0.25	0	103	75	125			
Iron (Fe)	53.8	0.3	50	0.6736	106	75	125			
Nickel (Ni)	0.276	0.01	0.25	0.01621	104	75	125			
Copper (Cu)	0.275	0.01	0.25	0.01579	104	75	125			
Zinc (Zn)	0.281	0.1	0.25	0	112	75	125			
Arsenic (As)	0.277	0.005	0.25	0	111	75	125			
Selenium (Se)	0.269	0.005	0.25	0	108	75	125			
Silver (Ag)	0.255	0.005	0.25	0	102	75	125			
Cadmium (Cd)	0.28	0.005	0.25	0	112	75	125			
Antimony (Sb)	0.284	0.005	0.25	0	114	75	125			
Mercury (Hg)	0.00488	0.001	0.005	0	98	75	125			
Thallium (Tl)	0.244	0.002	0.25	0	97	75	125			
Lead (Pb)	0.272	0.005	0.25	0	109	75	125			



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Date:
28-Dec-10

QC Summary Report

Work Order:
10121720

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 122110.B\032_M.D\

Batch ID: 25677

Analysis Date: 12/21/2010 17:21

Sample ID: 10121845-01AMSD

Units : mg/L

Run ID: ICP/MS_101221A

Prep Date: 12/21/2010 10:11

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.279	0.004	0.25	0	111	75	125	0.2872	3.0(20)	
Chromium (Cr)	0.249	0.005	0.25	0	99.6	75	125	0.2574	3.3(20)	
Iron (Fe)	52.1	0.3	50	0.6736	103	75	125	53.75	3.2(20)	
Nickel (Ni)	0.265	0.01	0.25	0.01621	99	75	125	0.2759	4.1(20)	
Copper (Cu)	0.261	0.01	0.25	0.01579	98	75	125	0.2747	5.3(20)	
Zinc (Zn)	0.267	0.1	0.25	0	107	75	125	0.2809	5.2(20)	
Arsenic (As)	0.264	0.005	0.25	0	106	75	125	0.2767	4.7(20)	
Selenium (Se)	0.255	0.005	0.25	0	102	75	125	0.2693	5.3(20)	
Silver (Ag)	0.239	0.005	0.25	0	95	75	125	0.255	6.6(20)	
Cadmium (Cd)	0.268	0.005	0.25	0	107	75	125	0.2798	4.4(20)	
Antimony (Sb)	0.269	0.005	0.25	0	108	75	125	0.2838	5.2(20)	
Mercury (Hg)	0.0047	0.001	0.005	0	94	75	125	0.004877	3.7(20)	
Thallium (Tl)	0.239	0.002	0.25	0	95	75	125	0.2437	2.1(20)	
Lead (Pb)	0.259	0.005	0.25	0	103	75	125	0.2716	4.9(20)	

Comments:

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



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Date:
06-Jan-11

QC Summary Report

Work Order:
10121720

Method Blank

Type **MBLK** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 10:47**
Sample ID: **MBLK-25715** Units : mg/L Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDPRefVal %RPD(Limit) Qual
Total Organic Carbon ND 1

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 11:14**
Sample ID: **LCS-25715** Units : mg/L Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDPRefVal %RPD(Limit) Qual
Total Organic Carbon 5.16 1 5 103 74 126

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 14:26**
Sample ID: **10121720-04AMS** Units : mg/L Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDPRefVal %RPD(Limit) Qual
Total Organic Carbon 9.84 4 5 6.874 59 56 137

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 14:55**
Sample ID: **10121720-04AMSD** Units : mg/L Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDPRefVal %RPD(Limit) Qual
Total Organic Carbon 10.4 4 5 6.874 70 56 137 9.841 5.4(20)

Comments:

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



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LABORATORIES

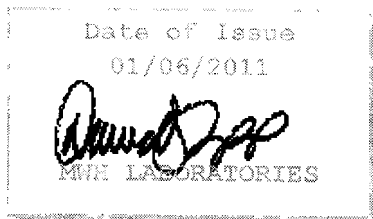
A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attention: Reyna Vallejo
Fax: 775-355-0406



Report#: 351539
Project: SUBCONTRACT
Group: Chlorate

DST: David S Tripp
Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.



LABORATORIES

Acknowledgement of Samples Received

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attn: Reyna Vallejo
Phone: 775-355-1044

Customer Code: ALPHA-NV
Folder #: 351539
Project: SUBCONTRACT
Sample Group: Chlorate
Project Manager: David S Tripp
Phone: (626) 386-1158
PO #: PES10121720

The following samples were received from you on December 17, 2010. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Table with 3 columns: Sample #, Sample ID, and Sample Date. It lists four samples: 201012180077, 201012180078, 201012180079, and 201012180080, each with its corresponding ID and date.

Test Description



MWH

LABORATORIES

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750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory
Hits Report: 351539

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Samples Received on:
12/17/2010

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
12/27/2010	22:18 Chlorate by IC	<u>NGEM-As-Mob-T0</u>	26000		ug/L	5000
12/27/2010	22:43 Chlorate by IC	<u>NGEM-As-Mob-Con-A</u>	26000		ug/L	5000
12/29/2010	23:15 Chlorate by IC	<u>NGEM-As-Mob-EOS-lo-A</u>	22000		ug/L	2000



MWH

LABORATORIES

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750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

**Laboratory Data
Report: 351539**

Samples Received on:
12/17/2010

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
<u>NGEM-As-Mob-T0 (201012180077)</u>						Sampled on 12/16/2010 1100		
Variable ID: PES10121720-01A								
EPA 300.0 - Disinfection ByProducts by 300.0								
12/27/2010	22:18	581331	(EPA 300.0)	Chlorate by IC	26000	ug/L	5000	500
<u>NGEM-As-Mob-Con-A (201012180078)</u>						Sampled on 12/16/2010 1100		
Variable ID: PES10121720-02A								
EPA 300.0 - Disinfection ByProducts by 300.0								
12/27/2010	22:43	581331	(EPA 300.0)	Chlorate by IC	26000	ug/L	5000	500
<u>NGEM-As-Mob-EOS-hi-A (201012180079)</u>						Sampled on 12/16/2010 1100		
Variable ID: PES10121720-03A								
EPA 300.0 - Disinfection ByProducts by 300.0								
12/22/2010	02:36	580855	(EPA 300.0)	Chlorate by IC	ND	ug/L	10	1
<u>NGEM-As-Mob-EOS-lo-A (201012180080)</u>						Sampled on 12/16/2010 1100		
Variable ID: PES10121720-04A								
EPA 300.0 - Disinfection ByProducts by 300.0								
12/29/2010	23:15	581960	(EPA 300.0)	Chlorate by IC	22000	ug/L	2000	100



MWH

LABORATORIES

A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Comments
Report: #351539



MWH

LABORATORIES

A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory
QC Summary: 351539

Alpha Analytical, Inc.

QC Ref # 580855 - Disinfection ByProducts by 300.0
201012180079 NGEM-As-Mob-EOS-hi-A

Analysis Date: 12/22/2010
Analyzed by: TLH

QC Ref # 581331 - Disinfection ByProducts by 300.0
201012180077 NGEM-As-Mob-T0
201012180078 NGEM-As-Mob-Con-A

Analysis Date: 12/27/2010
Analyzed by: LUPE
Analyzed by: LUPE

QC Ref # 581960 - Disinfection ByProducts by 300.0
201012180080 NGEM-As-Mob-EOS-Io-A

Analysis Date: 12/29/2010
Analyzed by: TLH



MWH

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Laboratory
QC Report: 351539

Alpha Analytical, Inc.

Table with columns: QC Type, Analyte, Native, Spiked, Recovered, Units, Yield (%), Limits (%), RPDLimit (%), RPD%. Contains three sections for QC Ref# 580855, 581331, and 581960, each with an analysis date and multiple rows of data.

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

TEL: (775) 355-1044 FAX: (775) 355-0406

NV

WorkOrder : PES10121720

Report Due By : 5:00 PM On : 04-Jan-11

Client:
 Prima Environmental
 5070 Robert J. Mathews Parkway
 Suite 300
 El Dorado Hills, CA 95762

Report Attention	Phone Number	E-Mail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : Beth Brewer


PO :
 Client's COC # : 32696 Job : NGEM-As-Mob

Cooler Temp	Samples Received	Date Printed
1 °C	17-Dec-10	20-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests					Sample Remarks
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A_Q	TOC_W	
PES10121720-01A	NGEM-As-Mob-T0	AQ	12/16/10 11:00	6	1	10	Chlorate, Cl, NO3	Chlorate, Cl, NO3	Perchlorate	Special List	TOC	
PES10121720-02A	NGEM-As-Mob-Con-A	AQ	12/16/10 11:00	6	1	10	Chlorate, Cl, NO3	Chlorate, Cl, NO3	Perchlorate	Special List	TOC	
PES10121720-03A	NGEM-As-Mob-EOS-hi-A	AQ	12/16/10 11:00	6	1	10	Chlorate, Cl, NO3	Chlorate, Cl, NO3	Perchlorate	Special List	TOC	
PES10121720-04A	NGEM-As-Mob-EOS-lo-A	AQ	12/16/10 11:00	6	1	10	Chlorate, Cl, NO3	Chlorate, Cl, NO3	Perchlorate	Special List	TOC	


Comments: Security seals intact. Frozen ice. Chorate subbed to Montgomery Watson by Sac Office. Cl, NO3, 6020 & 9060 are field filtered. Samples are ~30mg/L Perchlorate, high in salts. Login completed on 12/20/10 due to delayed FedEx delivery. Saturday delivery. : Samples kept cold and secure until login on Monday. Samples rec'd outside the 48 hr hold time for unpreserved bottles for Nitrate, therefore the H2SO4 bottles will be used for NO3 analysis. TOC pH=2.

Signature	Print Name	Company	Date/Time
	K Murray	Alpha Analytical, Inc.	12/20/10 0805

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

Billing Information:

Con **PRIMA ENVIRONMENTAL, Inc.**
 Attn **5070 Robert J. Mathews Parkway, Suite 300**
 Add **El Dorado Hills, CA 95762**
 City **PH: 916-939-7300 FAX: 916 939 7398**
 Pho **data@primenvironmental.com**



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?
 AZ CA NV WA **DOD Site**
 ID OR OTHER Page # 1 of 1

32096

Consultant / Client Name			Job #		Job Name			Analyses Required					Data Validation Level: III or IV		
Address			Name: <u>Cindy Schreier</u>		Report Attention / Project Manager			300 (Cl, NO ₃)	6020	9060 TOC	314-Perchlorate	300-Chlorate	EDD / EDF? YES <input type="checkbox"/> NO <input type="checkbox"/>		
City, State, Zip			Email:		Phone: _____ Mobile: _____								Global ID # _____		
Time Sampled	Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number	Office (Use Only)	Sample Description	TAT						Field Filtered	# Containers**	REMARKS
		AQ	PES10121720-01			NGEM-AS-Mob-TØ	STD	*	3-V, 2-P 2-OT	X	X	X	X	X	Metals = Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Tl, Zn *(Cl, NO ₃), 6020 & 9060 are field filtered Chlorate to MWH #
				FOR 02		-Con-A				X	X	X	X	X	
				03		-Eos-hi-A				X	X	X	X	X	
				04		-Eos-lo-A				X	X	X	X	X	

ADDITIONAL INSTRUCTIONS: Samples are ~30mg/L perchlorate, high in salts.

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: <u>Beth Brewer</u>			
Relinquished by: (Signature/Affiliation) <u>Beth Brewer</u>	Received by: (Signature/Affiliation) <u>Isaiah Selin</u>	Date: <u>12/16/10</u>	Time: <u>1400</u>
Relinquished by: (Signature/Affiliation) <u>Isaiah Selin</u> 12-16-10 1500	Received by: (Signature/Affiliation) <u>K Murray</u>	Date: <u>12/20/10</u>	Time: <u>0800</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:

*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.



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/21/10

Job: NGEM-As-Mob

Anions by IC
EPA Method 300.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-B				
Lab ID: PES10122120-01A Chloride	2,600	500 mg/L	12/21/10 11:56	12/21/10 16:34
Date Sampled 12/20/10 11:00 Nitrate (NO3) - N	10	0.25 mg/L	12/21/10 11:56	12/21/10 12:52
Client ID: NGEM-As-Mob-Eos-Lo-B				
Lab ID: PES10122120-02A Chloride	3,100	500 mg/L	12/21/10 11:56	12/21/10 16:53
Date Sampled 12/20/10 11:00 Nitrate (NO3) - N	ND	0.25 mg/L	12/21/10 11:56	12/21/10 13:10
Client ID: NGEM-As-Mob-Eos-Hi-B				
Lab ID: PES10122120-03A Chloride	3,000	500 mg/L	12/21/10 11:56	12/21/10 17:11
Date Sampled 12/20/10 11:00 Nitrate (NO3) - N	ND	0.25 mg/L	12/21/10 11:56	12/21/10 13:29

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 • Carson, CA • (714) 386-2901 • info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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.

e
1/5/11

Report Date



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/21/10

Job: NGEM-As-Mob

Perchlorate by Ion Chromatography
EPA Method 314.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-B Lab ID: PES10122120-01A Perchlorate Date Sampled 12/20/10 11:00	22,000	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-Eos-Lo-B Lab ID: PES10122120-02A Perchlorate Date Sampled 12/20/10 11:00	5,560	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-Eos-Hi-B Lab ID: PES10122120-03A Perchlorate Date Sampled 12/20/10 11:00	ND	3.00 µg/L	12/22/10	12/30/10

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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1/5/11

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ANALYTICAL REPORT

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5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/21/10

Job: NGEM-As-Mob

Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID: NGEM-As-Mob-Con-B					
Lab ID : PES10122120-01A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/20/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.3	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.012	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	ND	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.030	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.023	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10
Client ID: NGEM-As-Mob-Eos-Lo-B					
Lab ID : PES10122120-02A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/20/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.3	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.017	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	ND	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.032	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.022	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10



Alpha Analytical, Inc.

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Client ID: **NGEM-As-Mob-Eos-Hi-B**

Lab ID : PES10122120-03A	Beryllium (Be)	ND	0.0040 mg/L	12/21/10	12/21/10
Date Sampled 12/20/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/21/10	12/21/10
	Iron (Fe)	2.2	0.30 mg/L	12/21/10	12/21/10
	Nickel (Ni)	0.018	0.010 mg/L	12/21/10	12/21/10
	Copper (Cu)	ND	0.010 mg/L	12/21/10	12/22/10
	Zinc (Zn)	ND	0.10 mg/L	12/21/10	12/21/10
	Arsenic (As)	0.033	0.0050 mg/L	12/21/10	12/21/10
	Selenium (Se)	0.024	0.0050 mg/L	12/21/10	12/21/10
	Silver (Ag)	ND	0.0050 mg/L	12/21/10	12/21/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/21/10	12/21/10
	Antimony (Sb)	ND	0.0050 mg/L	12/21/10	12/21/10
	Mercury (Hg)	ND	0.0010 mg/L	12/21/10	12/21/10
	Thallium (Tl)	ND	0.0020 mg/L	12/21/10	12/21/10
	Lead (Pb)	ND	0.0050 mg/L	12/21/10	12/21/10

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 • Carson, CA • (714) 386-2901 • info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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.


1/5/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/21/10

Job: NGEM-As-Mob

Total Organic Carbon as NonPurgeable Organic Carbon
EPA Method SW9060 / SM5310C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-B Lab ID : PES10122120-01A Total Organic Carbon Date Sampled 12/20/10 11:00	3.7	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Eos-Lo-B Lab ID : PES10122120-02A Total Organic Carbon Date Sampled 12/20/10 11:00	14	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Eos-Hi-B Lab ID : PES10122120-03A Total Organic Carbon Date Sampled 12/20/10 11:00	110	10 mg/L	12/29/10	12/29/10

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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1/5/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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Date:
03-Jan-11

QC Summary Report

Work Order:
10122120

Method Blank

File ID: 20	Type MBLK	Test Code: EPA Method 300.0	Batch ID: 25681	Analysis Date: 12/21/2010 11:56						
Sample ID: MB-25681	Units : mg/L	Run ID: IC_1_101221A	Prep Date: 12/21/2010 11:56							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	ND	0.5								
Nitrate (NO3) - N	ND	0.25								

Laboratory Fortified Blank

File ID: 21	Type LFB	Test Code: EPA Method 300.0	Batch ID: 25681	Analysis Date: 12/21/2010 12:15						
Sample ID: LFB-25681	Units : mg/L	Run ID: IC_1_101221A	Prep Date: 12/21/2010 11:56							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	49.6	0.5	50		99	90	110			
Nitrate (NO3) - N	5.16	0.25	5		103	90	110			

Sample Matrix Spike

File ID: 80	Type LFM	Test Code: EPA Method 300.0	Batch ID: 25681	Analysis Date: 12/22/2010 06:28						
Sample ID: 10122145-13ALFM	Units : mg/L	Run ID: IC_1_101221A	Prep Date: 12/21/2010 11:56							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	59.4	0.5	50	13.31	92	80	120			
Nitrate (NO3) - N	6.4	0.25	5	1.641	95	80	120			

Sample Matrix Spike Duplicate

File ID: 81	Type LFMD	Test Code: EPA Method 300.0	Batch ID: 25681	Analysis Date: 12/22/2010 06:46						
Sample ID: 10122145-13ALFMD	Units : mg/L	Run ID: IC_1_101221A	Prep Date: 12/21/2010 11:56							
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	60.4	0.5	50	13.31	94	80	120	59.42	1.6(15)	
Nitrate (NO3) - N	6.53	0.25	5	1.641	98	80	120	6.403	1.9(15)	

Comments:

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



Alpha Analytical, Inc.

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

Date:
03-Jan-11

QC Summary Report

Work Order:
10122120

Method Blank

Type **MBLK** Test Code: **EPA Method 314.0**

File ID: **14**

Batch ID: **25691**

Analysis Date: **12/22/2010 12:54**

Sample ID: **MB-25691**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND		2							

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 314.0**

File ID: **15**

Batch ID: **25691**

Analysis Date: **12/22/2010 13:13**

Sample ID: **LFB-25691**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.8		2	25	99	85	115			

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 314.0**

File ID: **19**

Batch ID: **25691**

Analysis Date: **12/22/2010 14:26**

Sample ID: **10122220-04ALFM**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.6		2	25	0	98	80	120		

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 314.0**

File ID: **20**

Batch ID: **25691**

Analysis Date: **12/22/2010 14:45**

Sample ID: **10122220-04ALFMD**

Units : **µg/L**

Run ID: **IC_3_101222A**

Prep Date: **12/22/2010 11:58**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.1		2	25	0	96	80	120	24.56	2.1(15)

Comments:

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



Alpha Analytical, Inc.

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

Date:
03-Jan-11

QC Summary Report

Work Order:
10122120

Method Blank

Type **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 122110.B\025_M.D\

Batch ID: 25677

Analysis Date: 12/21/2010 16:41

Sample ID: **MB-25677**

Units : mg/L

Run ID: **ICP/MS_101221A**

Prep Date: 12/21/2010 10:11

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Chromium (Cr)	ND	0.005								
Iron (Fe)	ND	0.3								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 122110.B\026_M.D\

Batch ID: 25677

Analysis Date: 12/21/2010 16:47

Sample ID: **LCS-25677**

Units : mg/L

Run ID: **ICP/MS_101221A**

Prep Date: 12/21/2010 10:11

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.255	0.004	0.25		102	80	120			
Chromium (Cr)	0.244	0.005	0.25		98	80	120			
Iron (Fe)	51.4	0.3	50		103	80	120			
Nickel (Ni)	0.256	0.01	0.25		102	80	120			
Copper (Cu)	0.257	0.01	0.25		103	80	120			
Zinc (Zn)	0.256	0.1	0.25		102	80	120			
Arsenic (As)	0.257	0.005	0.25		103	80	120			
Selenium (Se)	0.256	0.005	0.25		103	80	120			
Silver (Ag)	0.235	0.005	0.25		94	80	120			
Cadmium (Cd)	0.259	0.005	0.25		104	80	120			
Antimony (Sb)	0.261	0.005	0.25		105	80	120			
Mercury (Hg)	0.00443	0.001	0.005		89	80	120			
Thallium (Tl)	0.221	0.002	0.25		88	80	120			
Lead (Pb)	0.254	0.005	0.25		101	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: 122110.B\031_M.D\

Batch ID: 25677

Analysis Date: 12/21/2010 17:15

Sample ID: **10121845-01AMS**

Units : mg/L

Run ID: **ICP/MS_101221A**

Prep Date: 12/21/2010 10:11

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.287	0.004	0.25		0	115	75	125		
Chromium (Cr)	0.257	0.005	0.25		0	103	75	125		
Iron (Fe)	53.8	0.3	50	0.6736	106	75	125			
Nickel (Ni)	0.276	0.01	0.25	0.01621	104	75	125			
Copper (Cu)	0.275	0.01	0.25	0.01579	104	75	125			
Zinc (Zn)	0.281	0.1	0.25		0	112	75	125		
Arsenic (As)	0.277	0.005	0.25		0	111	75	125		
Selenium (Se)	0.269	0.005	0.25		0	108	75	125		
Silver (Ag)	0.255	0.005	0.25		0	102	75	125		
Cadmium (Cd)	0.28	0.005	0.25		0	112	75	125		
Antimony (Sb)	0.284	0.005	0.25		0	114	75	125		
Mercury (Hg)	0.00488	0.001	0.005		0	98	75	125		
Thallium (Tl)	0.244	0.002	0.25		0	97	75	125		
Lead (Pb)	0.272	0.005	0.25		0	109	75	125		



Alpha Analytical, Inc.

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Date:
03-Jan-11

QC Summary Report

Work Order:
10122120

Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method SW6020 / SW6020A

File ID: 122110.B\032_M.D\

Batch ID: 25677

Analysis Date: 12/21/2010 17:21

Sample ID: 10121845-01AMSD

Units : mg/L

Run ID: ICP/MS_101221A

Prep Date: 12/21/2010 10:11

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.279	0.004	0.25	0	111	75	125	0.2872	3.0(20)	
Chromium (Cr)	0.249	0.005	0.25	0	99.6	75	125	0.2574	3.3(20)	
Iron (Fe)	52.1	0.3	50	0.6736	103	75	125	53.75	3.2(20)	
Nickel (Ni)	0.265	0.01	0.25	0.01621	99	75	125	0.2759	4.1(20)	
Copper (Cu)	0.261	0.01	0.25	0.01579	98	75	125	0.2747	5.3(20)	
Zinc (Zn)	0.267	0.1	0.25	0	107	75	125	0.2809	5.2(20)	
Arsenic (As)	0.264	0.005	0.25	0	106	75	125	0.2767	4.7(20)	
Selenium (Se)	0.255	0.005	0.25	0	102	75	125	0.2693	5.3(20)	
Silver (Ag)	0.239	0.005	0.25	0	95	75	125	0.255	6.6(20)	
Cadmium (Cd)	0.268	0.005	0.25	0	107	75	125	0.2798	4.4(20)	
Antimony (Sb)	0.269	0.005	0.25	0	108	75	125	0.2838	5.2(20)	
Mercury (Hg)	0.0047	0.001	0.005	0	94	75	125	0.004877	3.7(20)	
Thallium (Tl)	0.239	0.002	0.25	0	95	75	125	0.2437	2.1(20)	
Lead (Pb)	0.259	0.005	0.25	0	103	75	125	0.2716	4.9(20)	

Comments:

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



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Date:
03-Jan-11

QC Summary Report

Work Order:
10122120

Method Blank

Type **MBLK** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 10:47**

Sample ID: **MBLK-25715** Units : **mg/L** Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	ND		1							

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 11:14**

Sample ID: **LCS-25715** Units : **mg/L** Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	5.16	1	5		103	74	126			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 14:26**

Sample ID: **10121720-04AMS** Units : **mg/L** Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	9.84	4	5	6.874	59	56	137			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25715** Analysis Date: **12/29/2010 14:55**

Sample ID: **10121720-04AMSD** Units : **mg/L** Run ID: **TOC_101229A** Prep Date: **12/29/2010 08:26**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	10.4	4	5	6.874	70	56	137	9.841	5.4(20)	

Comments:

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



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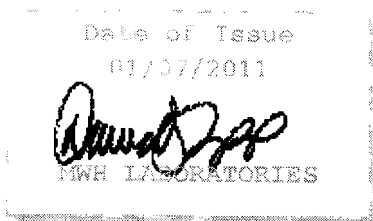
A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attention: Reyna Vallejo
Fax: 775-355-0406



Report#: 351711
Project: SUBCONTRACT
Group: Chlorate

DST: David S Tripp
Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.



Acknowledgement of Samples Received

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attn: Reyna Vallejo
Phone: 775-355-1044

Customer Code: ALPHA-NV
Folder #: 351711
Project: SUBCONTRACT
Sample Group: Chlorate
Project Manager: David S Tripp
Phone: (626) 386-1158
PO #: PES10122120

The following samples were received from you on **December 21, 2010**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample ID	Sample Date
<u>201012210243</u>	NGEM-As-Mob-Con-B Variable ID: PES10122120-01A Chlorate by IC	Dec 20, 2010 11:00
<u>201012210244</u>	NGEM-As-Mob-Eos-Lo-B Variable ID: PES10122120-02A Chlorate by IC	Dec 20, 2010 11:00
<u>201012210245</u>	NGEM-As-Mob-Eos-Hi-B Variable ID: PES10122120-03A Chlorate by IC	Dec 20, 2010 11:00

Test Description



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**Laboratory
Hits Report: 351711**

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Samples Received on:
12/21/2010

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
		201012210243				
		<u>NGEM-As-Mob-Con-B</u>				
12/28/2010	00:48 Chlorate by IC		26000		ug/L	1000
		201012210244				
		<u>NGEM-As-Mob-Eos-Lo-B</u>				
12/29/2010	23:40 Chlorate by IC		1100		ug/L	200



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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Data
Report: 351711

Samples Received on:
12/21/2010

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
NGEM-As-Mob-Con-B (201012210243)						Sampled on 12/20/2010 1100		
Variable ID: PES10122120-01A								
EPA 300.0 - Disinfection ByProducts by 300.0								
12/28/2010	00:48	581331	(EPA 300.0)	Chlorate by IC	26000	ug/L	1000	100
NGEM-As-Mob-Eos-Lo-B (201012210244)						Sampled on 12/20/2010 1100		
Variable ID: PES10122120-02A								
EPA 300.0 - Disinfection ByProducts by 300.0								
12/29/2010	23:40	581960	(EPA 300.0)	Chlorate by IC	1100	ug/L	200	10
NGEM-As-Mob-Eos-Hi-B (201012210245)						Sampled on 12/20/2010 1100		
Variable ID: PES10122120-03A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/05/2011	21:34	582467	(EPA 300.0)	Chlorate by IC	ND (MC)	ug/L	100	10



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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Comments
Report: #351711

Flags Legend:

MC - Matrix spike recovery was high; the associated blank spike recovery was acceptable. MS/MSD RPD met acceptance criteria.



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Laboratory
QC Summary: 351711

Alpha Analytical, Inc.

QC Ref # 581331 - Disinfection ByProducts by 300.0

201012210243 NGEM-As-Mob-Con-B

Analysis Date: 12/28/2010

Analyzed by: LUPE

QC Ref # 581960 - Disinfection ByProducts by 300.0

201012210244 NGEM-As-Mob-Eos-Lo-B

Analysis Date: 12/29/2010

Analyzed by: TLH

QC Ref # 582467 - Disinfection ByProducts by 300.0

201012210245 NGEM-As-Mob-Eos-Hi-B

Analysis Date: 01/05/2011

Analyzed by: TLH



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750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
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Laboratory
QC Report: 351711

Alpha Analytical, Inc.

Table with columns: QC Type, Analyte, Native, Spiked, Recovered, Units, Yield (%), Limits (%), RPDLimit (%), RPD%. Contains three sections for QC Ref# 581331, 581960, and 582467, each with an analysis date and multiple rows of data.

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
(S) Indicates surrogate compound.
(I) Indicates internal standard compound.
RPD not calculated for LCS2 when different a concentration than LCS1 is used
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

CHAIN-OF-CUSTODY RECORD

CA

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

WorkOrder : PES10122120
Report Due By : 5:00 PM On : 06-Jan-11

Client:
 Prima Environmental
 5070 Robert J. Mathews Parkway
 Suite 300
 El Dorado Hills, CA 95762

Report Attention	Phone Number	E-Mail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : Beth Brewer

PO :
 Client's COC # : 32698 Job : NGEM-As-Mob

Cooler Temp	Samples Received	Date Printed
4 °C	21-Dec-10	21-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests					Sample Remarks
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A Q	TOC_W	
PES10122120-01A	NGEM-As-Mob-Con-B	AQ	12/20/10 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Special List	TOC	
PES10122120-02A	NGEM-As-Mob-Eos-Lo-B	AQ	12/20/10 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Special List	TOC	
PES10122120-03A	NGEM-As-Mob-Eos-Hi-B	AQ	12/20/10 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Special List	TOC	

Comments: Security seals intact. Frozen ice. Chorate subbed to Montgomery Watson by Sac Office. Cl, NO3, 6020 & 9060 are field filtered. Samples are ~30mg/L Perchlorate, high in salts. TOC pH=2. Logged in Job Name per previous workorders and client sample ID. :

Signature	Print Name	Company	Date/Time
	K Munday	Alpha Analytical, Inc.	12/21/10 0935

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

Billing Information:

Compa **PRIMA ENVIRONMENTAL, Inc.**
 Attn: **5070 Robert J. Mathews Parkway, Suite 300**
 Address **EI Dorado Hills, CA 95762**
 City, St **PH: 916-939-7300 FAX: 916 939 7398**
 Phone **data@primenvironmental.com**



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?

AZ CA NV WA DOD Site
 ID OR OTHER Page # of

Consultant / Client Name		Job #		Job Name		Analyses Required 300(Cl, NO3) 6020 9060 (TOC) 314-Perchlorate 300 Chlorate					Data Validation Level: III or IV				
Address		Report Attention / Project Manager		Name: <u>Cindy Schreier</u>							EDD / EDF? YES <input type="checkbox"/> NO <input type="checkbox"/>				
City, State, Zip		Name:		Email:		Global ID #		REMARKS							
Time Sampled	Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number	Office (Use Only)	Sample Description	TAT	Field Filtered	# Containers**						
1100	12-20-10	AQ		PES10122120-01		NGEM · As · Mob · Con · B	std	*	3xV, 2xP, 2xOT	X	X	X	X	X	metals = Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Tl, Zn
↓	↓	↓		FOR 02		↓ EDS · Lo · B	↓	↓	↓	X	X	X	X	X	
↓	↓	↓		03		↓ EDS · Hi · B	↓	↓	↓	X	X	X	X	X	
LAB USE ONLY												*Cl, NO3, 6020, 9060 are field filtered			

ADDITIONAL INSTRUCTIONS:

Samples are ~ 30mg/L Perchlorate, high in salts

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: Beth Brewer

Relinquished by: (Signature/Affiliation) <u>Beth Brewer</u>	Received by: (Signature/Affiliation) <u>Sachal Salvia</u>	Date: <u>12-20-10</u>	Time: <u>1335</u>
Relinquished by: (Signature/Affiliation) <u>Sachal Salvia</u> 12-20-10 1500	Received by: (Signature/Affiliation) <u>Kellumay/AAI</u>	Date: <u>12/21/10</u>	Time: <u>0925</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:

*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.



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/29/10

Job: NGEM-As-Mob

Anions by IC
EPA Method 300.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-C				
Lab ID : PES10122940-01A Chloride	2,400	500 mg/L	12/29/10 12:57	12/30/10 17:41
Date Sampled 12/28/10 11:00 Nitrate (NO3) - N	10	0.25 mg/L	12/29/10 12:57	12/29/10 19:14
Client ID: NGEM-As-Mob-Eos-Lo-C				
Lab ID : PES10122940-02A Chloride	2,200	500 mg/L	12/29/10 12:57	12/30/10 17:59
Date Sampled 12/28/10 11:00 Nitrate (NO3) - N	ND	0.25 mg/L	12/29/10 12:57	12/29/10 19:32
Client ID: NGEM-As-Mob-Eos-Hi-C				
Lab ID : PES10122940-03A Chloride	2,300	500 mg/L	12/29/10 12:57	12/30/10 18:18
Date Sampled 12/28/10 11:00 Nitrate (NO3) - N	ND	0.25 mg/L	12/29/10 12:57	12/29/10 19:51

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 • Las Vegas, NV • (702) 736-7522 • Carson, CA • (714) 386-2901 • info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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.

1/12/11

Report Date



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/29/10

Job: NGEM-As-Mob

Perchlorate by Ion Chromatography EPA Method 314.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-C Lab ID: PES10122940-01A Perchlorate Date Sampled 12/28/10 11:00	24,800	2,000 µg/L	12/30/10	12/30/10
Client ID: NGEM-As-Mob-Eos-Lo-C Lab ID: PES10122940-02A Perchlorate Date Sampled 12/28/10 11:00	ND X	3.00 µg/L	12/30/10	01/10/11
Client ID: NGEM-As-Mob-Eos-Hi-C Lab ID: PES10122940-03A Perchlorate Date Sampled 12/28/10 11:00	ND X	3.00 µg/L	12/30/10	01/10/11

X = Reporting Limits were increased due to sample matrix interferences.

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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1/12/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/29/10

Job: NGEM-As-Mob

Metals by ICPMS

EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID: NGEM-As-Mob-Con-C					
Lab ID : PES10122940-01A	Beryllium (Be)	ND	0.0040 mg/L	12/30/10	12/31/10
Date Sampled 12/28/10 11:00	Chromium (Cr)	0.0064	0.0050 mg/L	12/30/10	12/31/10
	Iron (Fe)	2.2	0.30 mg/L	12/30/10	12/31/10
	Nickel (Ni)	0.012	0.010 mg/L	12/30/10	12/31/10
	Copper (Cu)	0.011	0.010 mg/L	12/30/10	12/31/10
	Zinc (Zn)	ND	0.10 mg/L	12/30/10	12/31/10
	Arsenic (As)	0.030	0.0050 mg/L	12/30/10	12/31/10
	Selenium (Se)	0.025	0.0050 mg/L	12/30/10	12/31/10
	Silver (Ag)	ND	0.0050 mg/L	12/30/10	12/31/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/30/10	12/31/10
	Antimony (Sb)	ND	0.0050 mg/L	12/30/10	12/31/10
	Mercury (Hg)	ND	0.0010 mg/L	12/30/10	12/31/10
	Thallium (Tl)	ND	0.0020 mg/L	12/30/10	12/31/10
	Lead (Pb)	ND	0.0050 mg/L	12/30/10	12/31/10
Client ID: NGEM-As-Mob-Eos-Lo-C					
Lab ID : PES10122940-02A	Beryllium (Be)	ND	0.0040 mg/L	12/30/10	12/31/10
Date Sampled 12/28/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/30/10	12/31/10
	Iron (Fe)	2.3	0.30 mg/L	12/30/10	12/31/10
	Nickel (Ni)	0.018	0.010 mg/L	12/30/10	12/31/10
	Copper (Cu)	ND	0.010 mg/L	12/30/10	12/31/10
	Zinc (Zn)	ND	0.10 mg/L	12/30/10	12/31/10
	Arsenic (As)	0.029	0.0050 mg/L	12/30/10	12/31/10
	Selenium (Se)	0.015	0.0050 mg/L	12/30/10	12/31/10
	Silver (Ag)	ND	0.0050 mg/L	12/30/10	12/31/10
	Cadmium (Cd)	ND	0.0050 mg/L	12/30/10	12/31/10
	Antimony (Sb)	ND	0.0050 mg/L	12/30/10	12/31/10
	Mercury (Hg)	ND	0.0010 mg/L	12/30/10	12/31/10
	Thallium (Tl)	ND	0.0020 mg/L	12/30/10	12/31/10
	Lead (Pb)	ND	0.0050 mg/L	12/30/10	12/31/10



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Client ID: NGEM-As-Mob-Eos-Hi-C

Lab ID :	PES10122940-03A	Beryllium (Be)	ND	0.0040 mg/L	12/30/10	12/31/10
Date Sampled	12/28/10 11:00	Chromium (Cr)	ND	0.0050 mg/L	12/30/10	12/31/10
		Iron (Fe)	2.5	0.30 mg/L	12/30/10	12/31/10
		Nickel (Ni)	0.023	0.010 mg/L	12/30/10	12/31/10
		Copper (Cu)	ND	0.010 mg/L	12/30/10	12/31/10
		Zinc (Zn)	ND	0.10 mg/L	12/30/10	12/31/10
		Arsenic (As)	0.028	0.0050 mg/L	12/30/10	12/31/10
		Selenium (Se)	0.021	0.0050 mg/L	12/30/10	12/31/10
		Silver (Ag)	ND	0.0050 mg/L	12/30/10	12/31/10
		Cadmium (Cd)	ND	0.0050 mg/L	12/30/10	12/31/10
		Antimony (Sb)	ND	0.0050 mg/L	12/30/10	12/31/10
		Mercury (Hg)	ND	0.0010 mg/L	12/30/10	12/31/10
		Thallium (Tl)	ND	0.0020 mg/L	12/30/10	12/31/10
		Lead (Pb)	ND	0.0050 mg/L	12/30/10	12/31/10

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
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1/12/11

Report Date



Alpha Analytical, Inc.

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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 12/29/10

Job: NGEM-As-Mob

Total Organic Carbon as NonPurgeable Organic Carbon
EPA Method SW9060 / SM5310C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-C				
Lab ID : PES10122940-01A Total Organic Carbon Date Sampled 12/28/10 11:00	2.8 *	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Eos-Lo-C				
Lab ID : PES10122940-02A Total Organic Carbon Date Sampled 12/28/10 11:00	12 *	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Eos-Hi-C				
Lab ID : PES10122940-03A Total Organic Carbon Date Sampled 12/28/10 11:00	48 *	4.0 mg/L	12/29/10	12/30/10

*Sample was field filtered by the client and the value represents DOC.

Roger Scholl *Randy Gardner* *Walter Hinchman*

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1/12/11

Report Date



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Date:
05-Jan-11

QC Summary Report

Work Order:
10122940

Method Blank

Type **MBLK** Test Code: **EPA Method 300.0**

File ID: **20**

Batch ID: **25722**

Analysis Date: **12/29/2010 12:26**

Sample ID: **MB-25722**

Units : **mg/L**

Run ID: **IC_1_101229B**

Prep Date: **12/29/2010 12:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	ND	0.5								
Nitrate (NO3) - N	ND	0.25								

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 300.0**

File ID: **21**

Batch ID: **25722**

Analysis Date: **12/29/2010 12:45**

Sample ID: **LFB-25722**

Units : **mg/L**

Run ID: **IC_1_101229B**

Prep Date: **12/29/2010 12:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	50.2	0.5	50		100	90	110			
Nitrate (NO3) - N	5.32	0.25	5		106	90	110			

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 300.0**

File ID: **33**

Batch ID: **25722**

Analysis Date: **12/29/2010 16:27**

Sample ID: **10122842-02ALFM**

Units : **mg/L**

Run ID: **IC_1_101229B**

Prep Date: **12/29/2010 12:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	102	0.5	50	71.52	60	80	120			M2
Nitrate (NO3) - N	10.3	0.25	5	5.963	87	80	120			

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 300.0**

File ID: **34**

Batch ID: **25722**

Analysis Date: **12/29/2010 16:46**

Sample ID: **10122842-02ALFMD**

Units : **mg/L**

Run ID: **IC_1_101229B**

Prep Date: **12/29/2010 12:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Chloride	104	0.5	50	71.52	66	80	120	101.7	2.6(15)	M2
Nitrate (NO3) - N	10.6	0.25	5	5.963	94	80	120	10.33	2.9(15)	

Comments:

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

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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Date:
11-Jan-11

QC Summary Report

Work Order:
10122940

Method Blank

Type **MBLK** Test Code: **EPA Method 314.0**

File ID: **14**

Batch ID: **25727**

Analysis Date: **12/30/2010 12:46**

Sample ID: **MB-25727**

Units : **µg/L**

Run ID: **IC_3_101230A**

Prep Date: **12/30/2010 11:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND		2							

Laboratory Fortified Blank

Type **LFB** Test Code: **EPA Method 314.0**

File ID: **15**

Batch ID: **25727**

Analysis Date: **12/30/2010 13:04**

Sample ID: **LFB-25727**

Units : **µg/L**

Run ID: **IC_3_101230A**

Prep Date: **12/30/2010 11:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.7	2	25		99	85	115			

Sample Matrix Spike

Type **LFM** Test Code: **EPA Method 314.0**

File ID: **20**

Batch ID: **25727**

Analysis Date: **12/30/2010 14:39**

Sample ID: **10123006-08ALFM**

Units : **µg/L**

Run ID: **IC_3_101230A**

Prep Date: **12/30/2010 11:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	24.8	2	25	0	99	80	120			

Sample Matrix Spike Duplicate

Type **LFMD** Test Code: **EPA Method 314.0**

File ID: **21**

Batch ID: **25727**

Analysis Date: **12/30/2010 14:57**

Sample ID: **10123008-08ALFMD**

Units : **µg/L**

Run ID: **IC_3_101230A**

Prep Date: **12/30/2010 11:49**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	23.9	2	25	0	95	80	120	24.83	4.0(15)	

Comments:

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



Alpha Analytical, Inc.

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Date:
07-Jan-11

QC Summary Report

Work Order:
10122940

Method Blank

Type **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **123010.B1072_M1.D**

Batch ID: **25724**

Analysis Date: **12/31/2010 10:05**

Sample ID: **MB-25724**

Units : **mg/L**

Run ID: **ICP/MS_101231A**

Prep Date: **12/30/2010 08:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Chromium (Cr)	ND	0.005								
Iron (Fe)	ND	0.3								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **123010.B1072_M2.D**

Batch ID: **25724**

Analysis Date: **12/31/2010 10:11**

Sample ID: **LCS-25724**

Units : **mg/L**

Run ID: **ICP/MS_101231A**

Prep Date: **12/30/2010 08:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.239	0.004	0.25		96	80	120			
Chromium (Cr)	0.244	0.005	0.25		98	80	120			
Iron (Fe)	52	0.3	50		104	80	120			
Nickel (Ni)	0.256	0.01	0.25		102	80	120			
Copper (Cu)	0.258	0.01	0.25		103	80	120			
Zinc (Zn)	0.263	0.1	0.25		105	80	120			
Arsenic (As)	0.256	0.005	0.25		102	80	120			
Selenium (Se)	0.247	0.005	0.25		99	80	120			
Silver (Ag)	0.232	0.005	0.25		93	80	120			
Cadmium (Cd)	0.245	0.005	0.25		98	80	120			
Antimony (Sb)	0.232	0.005	0.25		93	80	120			
Mercury (Hg)	0.00404	0.001	0.005		81	80	120			
Thallium (Tl)	0.229	0.002	0.25		92	80	120			
Lead (Pb)	0.234	0.005	0.25		94	80	120			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **123010.B1077_M.D**

Batch ID: **25724**

Analysis Date: **12/31/2010 10:39**

Sample ID: **10122804-01AMS**

Units : **mg/L**

Run ID: **ICP/MS_101231A**

Prep Date: **12/30/2010 08:57**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.249	0.004	0.25		0 99.5	75	125			
Chromium (Cr)	0.25	0.005	0.25		0 100	75	125			
Iron (Fe)	63.2	0.3	50		12.52 101	75	125			
Nickel (Ni)	0.298	0.01	0.25	0.0445	101	75	125			
Copper (Cu)	0.262	0.01	0.25		0 105	75	125			
Zinc (Zn)	0.284	0.1	0.25		0 114	75	125			
Arsenic (As)	0.259	0.005	0.25		0 104	75	125			
Selenium (Se)	0.251	0.005	0.25		0 100	75	125			
Silver (Ag)	0.241	0.005	0.25		0 97	75	125			
Cadmium (Cd)	0.247	0.005	0.25		0 99	75	125			
Antimony (Sb)	0.234	0.005	0.25		0 94	75	125			
Mercury (Hg)	0.00402	0.001	0.005		0 80	75	125			
Thallium (Tl)	0.233	0.002	0.25		0 93	75	125			
Lead (Pb)	0.238	0.005	0.25		0 95	75	125			



Alpha Analytical, Inc.

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Date:
07-Jan-11

QC Summary Report

Work Order:
10122940

Sample Matrix Spike Duplicate

File ID: 123010.B\078_M.D\

Type MSD

Test Code: EPA Method SW6020 / SW6020A

Batch ID: 25724

Analysis Date: 12/31/2010 10:44

Sample ID: 10122804-01AMSD

Units : mg/L

Run ID: ICP/MS_101231A

Prep Date: 12/30/2010 08:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.261	0.004	0.25	0	104	75	125	0.2488	4.7(20)	
Chromium (Cr)	0.269	0.005	0.25	0	107	75	125	0.2503	7.1(20)	
Iron (Fe)	67.7	0.3	50	12.52	110	75	125	63.2	6.8(20)	
Nickel (Ni)	0.316	0.01	0.25	0.0445	109	75	125	0.2976	6.0(20)	
Copper (Cu)	0.279	0.01	0.25	0	112	75	125	0.2621	6.3(20)	
Zinc (Zn)	0.3	0.1	0.25	0	120	75	125	0.2842	5.5(20)	
Arsenic (As)	0.278	0.005	0.25	0	111	75	125	0.259	7.0(20)	
Selenium (Se)	0.267	0.005	0.25	0	107	75	125	0.2506	6.5(20)	
Silver (Ag)	0.339	0.005	0.25	0	135	75	125	0.2414	33.5(20)	M1 R58
Cadmium (Cd)	0.26	0.005	0.25	0	104	75	125	0.2467	5.2(20)	
Antimony (Sb)	0.257	0.005	0.25	0	103	75	125	0.2339	9.2(20)	
Mercury (Hg)	0.00442	0.001	0.005	0	88	75	125	0.004021	9.4(20)	
Thallium (Tl)	0.251	0.002	0.25	0	101	75	125	0.233	7.6(20)	
Lead (Pb)	0.252	0.005	0.25	0	101	75	125	0.2384	5.6(20)	

Comments:

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

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

R58 = MS/MSD RPD exceeded the laboratory control limit.



Alpha Analytical, Inc.

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

Date:
06-Jan-11

QC Summary Report

Work Order:
10122940

Method Blank

Type **MBLK** Test Code: **EPA Method SW9060 / SM5310C**

File ID:			Batch ID: 25715	Analysis Date: 12/29/2010 10:47						
Sample ID: MBLK-25715	Units : mg/L		Run ID: TOC_101229A	Prep Date: 12/29/2010 08:26						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	ND		1							

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW9060 / SM5310C**

File ID:			Batch ID: 25715	Analysis Date: 12/29/2010 11:14						
Sample ID: LCS-25715	Units : mg/L		Run ID: TOC_101229A	Prep Date: 12/29/2010 08:26						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	5.16	1	5		103	74	126			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW9060 / SM5310C**

File ID:			Batch ID: 25715	Analysis Date: 12/29/2010 14:26						
Sample ID: 10121720-04AMS	Units : mg/L		Run ID: TOC_101229A	Prep Date: 12/29/2010 08:26						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	9.84	4	5	6.874	59	56	137			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW9060 / SM5310C**

File ID:			Batch ID: 25715	Analysis Date: 12/29/2010 14:55						
Sample ID: 10121720-04AMSD	Units : mg/L		Run ID: TOC_101229A	Prep Date: 12/29/2010 08:26						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Total Organic Carbon	10.4	4	5	6.874	70	56	137	9.841	5.4(20)	

Comments:

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



MWH

LABORATORIES

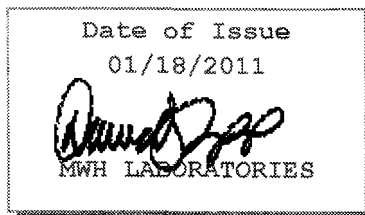
A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attention: Reyna Vallejo
Fax: 775-355-0406



Report#: 352342
Project: SUBCONTRACT
Group: Chlorate

DST: David S Tripp
Project Manager

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.



MWH

LABORATORIES

Acknowledgement of Samples Received

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attn: Reyna Vallejo
Phone: 775-355-1044

Customer Code: ALPHA-NV
Folder #: 352342
Project: SUBCONTRACT
Sample Group: Chlorate
Project Manager: David S Tripp
Phone: (626) 386-1158
PO #: PES10122940

The following samples were received from you on **December 29, 2010**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample ID	Sample Date
201012300119	NGEM-As-Mob-Con-C Variable ID: PES10122940-01A Chlorate by IC	Dec 28, 2010 11:00
201012300126	NGEM-As-Mob-Eos-Lo-C Variable ID: PES10122940-02A Chlorate by IC	Dec 28, 2010 11:00
201012300127	NGEM-As-Mob-Eos-Hi-C Variable ID: PES10122940-03A Chlorate by IC	Dec 28, 2010 11:00

Test Description



MWH

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A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

**Laboratory
Hits Report: 352342**

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Samples Received on:
12/29/2010

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
01/12/2011 12:25	Chlorate by IC	201012300119 <u>NGEM-As-Mob-Con-C</u>	27000		ug/L	1000



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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Data
Report: 352342

Samples Received on:
12/29/2010

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
<u>NGEM-As-Mob-Con-C (201012300119)</u>						Sampled on 12/28/2010 1100		
Variable ID: PES10122940-01A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/12/2011	12:25	583238	(EPA 300.0)	Chlorate by IC	27000	ug/L	1000	100
<u>NGEM-As-Mob-Eos-Lo-C (201012300126)</u>						Sampled on 12/28/2010 1100		
Variable ID: PES10122940-02A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/12/2011	13:15	583238	(EPA 300.0)	Chlorate by IC	ND	ug/L	50	5
<u>NGEM-As-Mob-Eos-Hi-C (201012300127)</u>						Sampled on 12/28/2010 1100		
Variable ID: PES10122940-03A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/12/2011	14:05	583238	(EPA 300.0)	Chlorate by IC	ND	ug/L	50	5



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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Comments
Report: #352342



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Laboratory
QC Summary: 352342

Alpha Analytical, Inc.

QC Ref # 583238 - Disinfection ByProducts by 300.0

Analysis Date: 01/12/2011

201012300119	NGEM-As-Mob-Con-C
201012300126	NGEM-As-Mob-Eos-Lo-C
201012300127	NGEM-As-Mob-Eos-Hi-C

Analyzed by: TLH
Analyzed by: TLH
Analyzed by: TLH



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750 Royal Oak Dr., Suite 100
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Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory
QC Report: 352342

Alpha Analytical, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 583238 - Disinfection ByProducts by 300.0 by EPA 300.0					Analysis Date: 01/11/2011				
LCS1	Chlorate by IC		200	200	ug/L	100	(90-110)		
LCS2	Chlorate by IC		200	198	ug/L	99	(90-110)	20	1.0
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	11.1	ug/L	111	(75-125)		
MS_201012180248	Chlorate by IC	ND	100	96.1	ug/L	96	(80-120)		
MS_201101040157	Chlorate by IC	49	100	141	ug/L	92	(80-120)		
MSD_201012180248	Chlorate by IC	ND	100	94.6	ug/L	95	(80-120)	15	1.6
MSD_201101040157	Chlorate by IC	49	100	145	ug/L	96	(80-120)	15	4.8

Spike recovery is already corrected for native results.
 Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
 Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
 (S) Indicates surrogate compound.
 (I) Indicates internal standard compound.
 RPD not calculated for LCS2 when different a concentration than LCS1 is used
 RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

CHAIN-OF-CUSTODY RECORD

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

CA

WorkOrder : PES10122940

Report Due By : 5:00 PM On : 13-Jan-11

Client:
 Prima Environmental
 5070 Robert J. Mathews Parkway
 Suite 300
 El Dorado Hills, CA 95762

Report Attention	Phone Number	EEmail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : Beth Brewer

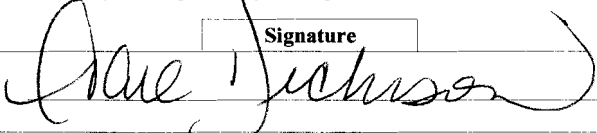
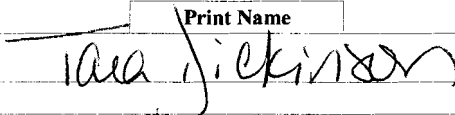
PO :
 Client's COC # : 32702 Job : NGEM-As-Mob

Cooler Temp Samples Received Date Printed
 2 °C 29-Dec-10 29-Dec-10

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests					Sample Remarks
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A Q	TOC_W	
PES10122940-01A	NGEM-As-Mob-Con-C	AQ	12/28/10 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Spec. List	TOC	
PES10122940-02A	NGEM-As-Mob-Eos-Lo-C	AQ	12/28/10 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Spec. List	TOC	
PES10122940-03A	NGEM-As-Mob-Eos-Hi-C	AQ	12/28/10 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Spec. List	TOC	

Comments: Security seals intact. Frozen ice. Samples are ~30mg/L Perchlorate; high salts. Chlorate subbed to Montgomery Watson by Sac office. Metals, Anions and TOC are filtered by client. Perchlorate was not filtered by client, per Kathy. TOC pH=2. :-

Logged in by:		Signature		Print Name	Alpha Analytical, Inc.	Company	12/29/10 1148	Date/Time
----------------------	---	------------------	--	-------------------	------------------------	----------------	---------------	------------------

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

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

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

Com **PRIMA ENVIRONMENTAL, Inc.**
 Attn: **5070 Robert J. Mathews Parkway, Suite 300**
 Addr **El Dorado Hills, CA 95762**
 City, PH: **916-939-7300** FAX: **916 939 7398**
 Phone **data@primenvironmental.com**



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?
 AZ CA NV WA **DOD Site**
 ID OR **OTHER** Page # of

Consultant / Client Name				Job #		Job Name		Analyses Required					Data Validation Level: III or IV					
Address				Name: <u>Cindy Schreier</u>		Report Attention / Project Manager		300-Cl, NO ₃	6020	9060 (TOC)	314 Perchlorate	300-Chloride	EDD/EDF? YES <input type="checkbox"/> NO <input type="checkbox"/>					
City, State, Zip				Email:		Phone:							Mobile:		Global ID #		REMARKS	
Time Sampled	Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number	Office (Use Only)	Sample Description	TAT						Field Filtered	# Containers**				
1100	12-28-10	AQ		PES10122940-01		NGEM-AS-Mob-CON-C	std	*	3x1, 2xP 2xOT	X	X	X	X	X	metals = Sb, As, Be, Cd, Cr, Cu, Pb, Fe, Hg, Ni, Se, Ag, Tl, Zn			
↓	↓	↓		-02		EOS-Lo-C	↓	↓	↓	X	X	X	X	X				
↓	↓	↓		-03		EOS-Hi-C	↓	↓	↓	X	X	X	X	X				
LAB USE ONLY																		
*Cl, NO ₃ , 6020, 9060 are field filtered																		
Sub to MWH #10122940																		

ADDITIONAL INSTRUCTIONS:

Samples are ~30 mg/L Perchlorate; high in salts

I, (field sampler), attest to the validity and authenticity of this sample and aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By: Beth Brewer

Relinquished by: (Signature/Affiliation) <u>Beth Brewer</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date: <u>12-28-10</u>	Time: <u>1400</u>
Relinquished by: (Signature/Affiliation) <u>[Signature]</u> 12-28-10 1500	Received by: (Signature/Affiliation) <u>[Signature]</u> / <u>[Signature]</u>	Date: <u>12/29/10</u>	Time: <u>1148</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:

*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.



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 01/25/11

Job: NGEM-As-Mob

Anions by IC
EPA Method 300.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-D				
Lab ID : PES11012520-01A Chloride	2,000	500 mg/L	01/25/11 15:57	01/25/11 17:12
Date Sampled 01/24/11 11:00 Nitrate (NO3) - N	10	0.25 mg/L	01/25/11 15:57	01/25/11 16:53
Client ID: NGEM-As-Mob-EOS-Lo-D				
Lab ID : PES11012520-02A Chloride	2,000	500 mg/L	01/25/11 15:57	01/25/11 18:26
Date Sampled 01/24/11 11:00 Nitrate (NO3) - N	ND	0.25 mg/L	01/25/11 15:57	01/25/11 18:07
Client ID: NGEM-As-Mob-EOS-Hi-D				
Lab ID : PES11012520-03A Chloride	2,000	500 mg/L	01/25/11 15:57	01/25/11 19:03
Date Sampled 01/24/11 11:00 Nitrate (NO3) - N	ND	0.25 mg/L	01/25/11 15:57	01/25/11 18:45

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.


2/7/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 01/25/11

Job: NGEM-As-Mob

Perchlorate by Ion Chromatography EPA Method 314.0

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-D Lab ID: PES11012520-01A Perchlorate Date Sampled 01/24/11 11:00	22,600	2,000 µg/L	01/24/11	01/25/11
Client ID: NGEM-As-Mob-EOS-Lo-D Lab ID: PES11012520-02A Perchlorate Date Sampled 01/24/11 11:00	ND X	3.00 µg/L	01/24/11	01/25/11
Client ID: NGEM-As-Mob-EOS-Hi-D Lab ID: PES11012520-03A Perchlorate Date Sampled 01/24/11 11:00	ND X	3.00 µg/L	01/24/11	01/25/11

Sample was not field filtered as required by the State of Nevada, but analyzed per client request.

X = Reporting Limits were increased due to sample matrix interferences.

ND = Not Detected

Roger Scholl *Randy Gardner* *Walter Hinchman*

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

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 01/25/11

Job: NGEM-As-Mob

Metals by ICPMS
EPA Method SW6020 / SW6020A

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID: NGEM-As-Mob-Con-D					
Lab ID : PES11012520-01A	Beryllium (Be)	ND	0.0040 mg/L	01/27/11	01/27/11
Date Sampled 01/24/11 11:00	Chromium (Cr)	0.0051	0.0050 mg/L	01/27/11	01/27/11
	Iron (Fe)	1.9	0.30 mg/L	01/27/11	01/27/11
	Nickel (Ni)	0.012	0.010 mg/L	01/27/11	01/27/11
	Copper (Cu)	ND	0.010 mg/L	01/27/11	01/27/11
	Zinc (Zn)	ND	0.10 mg/L	01/27/11	01/27/11
	Arsenic (As)	0.024	0.0050 mg/L	01/27/11	01/27/11
	Selenium (Se)	0.023	0.0050 mg/L	01/27/11	01/27/11
	Silver (Ag)	ND	0.0050 mg/L	01/27/11	01/27/11
	Cadmium (Cd)	ND	0.0050 mg/L	01/27/11	01/27/11
	Antimony (Sb)	ND	0.0050 mg/L	01/27/11	01/27/11
	Mercury (Hg)	ND	0.0010 mg/L	01/27/11	01/27/11
	Thallium (Tl)	ND	0.0020 mg/L	01/27/11	01/27/11
	Lead (Pb)	ND	0.0050 mg/L	01/27/11	01/27/11
Client ID: NGEM-As-Mob-EOS-Lo-D					
Lab ID : PES11012520-02A	Beryllium (Be)	ND	0.0040 mg/L	01/27/11	01/27/11
Date Sampled 01/24/11 11:00	Chromium (Cr)	ND	0.0050 mg/L	01/27/11	01/27/11
	Iron (Fe)	2.0	0.30 mg/L	01/27/11	01/27/11
	Nickel (Ni)	ND	0.010 mg/L	01/27/11	01/27/11
	Copper (Cu)	ND	0.010 mg/L	01/27/11	01/27/11
	Zinc (Zn)	ND	0.10 mg/L	01/27/11	01/27/11
	Arsenic (As)	0.028	0.0050 mg/L	01/27/11	01/27/11
	Selenium (Se)	ND	0.0050 mg/L	01/27/11	01/27/11
	Silver (Ag)	ND	0.0050 mg/L	01/27/11	01/27/11
	Cadmium (Cd)	ND	0.0050 mg/L	01/27/11	01/27/11
	Antimony (Sb)	ND	0.0050 mg/L	01/27/11	01/27/11
	Mercury (Hg)	ND	0.0010 mg/L	01/27/11	01/27/11
	Thallium (Tl)	ND	0.0020 mg/L	01/27/11	02/07/11
	Lead (Pb)	ND	0.0050 mg/L	01/27/11	01/27/11



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Client ID: **NGEM-As-Mob-EOS-Hi-D**

Lab ID : PES11012520-03A	Beryllium (Be)	ND	0.0040 mg/L	01/27/11	01/27/11
Date Sampled 01/24/11 11:00	Chromium (Cr)	ND	0.0050 mg/L	01/27/11	01/27/11
	Iron (Fe)	2.1	0.30 mg/L	01/27/11	01/27/11
	Nickel (Ni)	0.011	0.010 mg/L	01/27/11	01/27/11
	Copper (Cu)	ND	0.010 mg/L	01/27/11	01/27/11
	Zinc (Zn)	ND	0.10 mg/L	01/27/11	01/27/11
	Arsenic (As)	0.072	0.0050 mg/L	01/27/11	01/27/11
	Selenium (Se)	ND	0.0050 mg/L	01/27/11	01/27/11
	Silver (Ag)	ND	0.0050 mg/L	01/27/11	01/27/11
	Cadmium (Cd)	ND	0.0050 mg/L	01/27/11	01/27/11
	Antimony (Sb)	ND	0.0050 mg/L	01/27/11	01/27/11
	Mercury (Hg)	ND	0.0010 mg/L	01/27/11	01/27/11
	Thallium (Tl)	ND	0.0020 mg/L	01/27/11	01/27/11
	Lead (Pb)	ND	0.0050 mg/L	01/27/11	01/27/11

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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2/8/11

Report Date



Alpha Analytical, Inc.

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

ANALYTICAL REPORT

Prima Environmental
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

Attn: Cindy Schreier
Phone: (916) 939-7300
Fax: (916) 393-7398
Date Received : 01/25/11

Job: NGEM-As-Mob

Total Organic Carbon as NonPurgeable Organic Carbon
EPA Method SW9060 / SM5310C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-D Lab ID : PES11012520-01A Total Organic Carbon Date Sampled 01/24/11 11:00	3.7	1.0 mg/L	01/25/11	01/26/11
Client ID: NGEM-As-Mob-EOS-Lo-D Lab ID : PES11012520-02A Total Organic Carbon Date Sampled 01/24/11 11:00	24	4.0 mg/L	01/25/11	01/26/11
Client ID: NGEM-As-Mob-EOS-Hi-D Lab ID : PES11012520-03A Total Organic Carbon Date Sampled 01/24/11 11:00	170	10 mg/L	01/25/11	01/26/11

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 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

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Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

2/7/11

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
04-Feb-11

QC Summary Report

Work Order:
11012520

Method Blank

Type: MBLK Test Code: EPA Method 300.0

File ID: 20	Units : mg/L	Run ID: IC_1_110125A	Batch ID: 25870	Analysis Date: 01/25/2011 15:58						
Sample ID: MB-25870	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Analyte										
Chloride	ND	0.5								
Nitrate (NO3) - N	ND	0.25								

Laboratory Fortified Blank

Type: LFB Test Code: EPA Method 300.0

File ID: 21	Units : mg/L	Run ID: IC_1_110125A	Batch ID: 25870	Analysis Date: 01/25/2011 16:16						
Sample ID: LFB-25870	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Analyte										
Chloride	50.7	0.5	50		101	90	110			
Nitrate (NO3) - N	5.06	0.25	5		101	90	110			

Sample Matrix Spike

Type: LFM Test Code: EPA Method 300.0

File ID: 25	Units : mg/L	Run ID: IC_1_110125A	Batch ID: 25870	Analysis Date: 01/25/2011 17:30						
Sample ID: 11012520-01ALFM	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Analyte										
Chloride	2500	2.5	500	2027	94	80	120			
Nitrate (NO3) - N	62.4	1.3	50	10.36	104	80	120			

Sample Matrix Spike Duplicate

Type: LFMD Test Code: EPA Method 300.0

File ID: 26	Units : mg/L	Run ID: IC_1_110125A	Batch ID: 25870	Analysis Date: 01/25/2011 17:49						
Sample ID: 11012520-01ALFMD	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Analyte										
Chloride	2500	2.5	500	2027	94	80	120	2499	0.0(15)	
Nitrate (NO3) - N	63.1	1.3	50	10.36	105	80	120	62.38	1.1(15)	

Comments:

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



Alpha Analytical, Inc.

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

Date:
26-Jan-11

QC Summary Report

Work Order:
11012520

Method Blank

Method Blank		Type	Test Code: EPA Method 314.0							
File ID: 20		MBLK	Batch ID: 25859				Analysis Date: 01/24/2011 13:27			
Sample ID: MB-25859	Units : µg/L		Run ID: IC_3_110124A				Prep Date: 01/24/2011 10:39			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	ND		2							

Laboratory Fortified Blank

Laboratory Fortified Blank		Type	Test Code: EPA Method 314.0							
File ID: 21		LFB	Batch ID: 25859				Analysis Date: 01/24/2011 13:46			
Sample ID: LFB-25859	Units : µg/L		Run ID: IC_3_110124A				Prep Date: 01/24/2011 10:39			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	23.1	2	25		92	85	115			

Sample Matrix Spike

Sample Matrix Spike		Type	Test Code: EPA Method 314.0							
File ID: 23		LFM	Batch ID: 25859				Analysis Date: 01/24/2011 14:23			
Sample ID: 11012472-06ALFM	Units : µg/L		Run ID: IC_3_110124A				Prep Date: 01/24/2011 10:39			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	3590	200	2500	1187	96	80	120			

Sample Matrix Spike Duplicate

Sample Matrix Spike Duplicate		Type	Test Code: EPA Method 314.0							
File ID: 24		LFMD	Batch ID: 25859				Analysis Date: 01/24/2011 14:41			
Sample ID: 11012472-06ALFMD	Units : µg/L		Run ID: IC_3_110124A				Prep Date: 01/24/2011 10:39			
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Perchlorate	3600	200	2500	1187	97	80	120	3595	0.3(15)	

Comments:

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Date:
04-Feb-11

QC Summary Report

Work Order:
11012520

Method Blank

Type: **MBLK** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012611.B\049_M1.D**

Batch ID: **25883**

Analysis Date: **01/27/2011 13:32**

Sample ID: **MB-25883**

Units : **mg/L**

Run ID: **ICP/MS_110127A**

Prep Date: **01/27/2011 09:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	ND	0.004								
Chromium (Cr)	ND	0.005								
Iron (Fe)	ND	0.3								
Nickel (Ni)	ND	0.01								
Copper (Cu)	ND	0.01								
Zinc (Zn)	ND	0.1								
Arsenic (As)	ND	0.005								
Selenium (Se)	ND	0.005								
Silver (Ag)	ND	0.005								
Cadmium (Cd)	ND	0.005								
Antimony (Sb)	ND	0.005								
Mercury (Hg)	ND	0.001								
Thallium (Tl)	ND	0.002								
Lead (Pb)	ND	0.005								

Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012611.B\050_M.D**

Batch ID: **25883**

Analysis Date: **01/27/2011 13:38**

Sample ID: **LCS-25883**

Units : **mg/L**

Run ID: **ICP/MS_110127A**

Prep Date: **01/27/2011 09:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.247	0.004	0.25		99	80	120			
Chromium (Cr)	0.235	0.005	0.25		94	80	120			
Iron (Fe)	52.5	0.3	50		105	80	120			
Nickel (Ni)	0.247	0.01	0.25		99	80	120			
Copper (Cu)	0.247	0.01	0.25		99	80	120			
Zinc (Zn)	0.242	0.1	0.25		97	80	120			
Arsenic (As)	0.248	0.005	0.25		99	80	120			
Selenium (Se)	0.241	0.005	0.25		96	80	120			
Silver (Ag)	0.226	0.005	0.25		90	80	120			
Cadmium (Cd)	0.244	0.005	0.25		98	80	120			
Antimony (Sb)	0.245	0.005	0.25		98	80	120			
Mercury (Hg)	0.00483	0.001	0.005		97	80	120			
Thallium (Tl)	0.209	0.002	0.25		83	80	120			
Lead (Pb)	0.24	0.005	0.25		96	80	120			

Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW6020 / SW6020A**

File ID: **012611.B\055_M.D**

Batch ID: **25883**

Analysis Date: **01/27/2011 14:06**

Sample ID: **11012520-01AMS**

Units : **mg/L**

Run ID: **ICP/MS_110127A**

Prep Date: **01/27/2011 09:45**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.295	0.004	0.25	0	118	75	125			
Chromium (Cr)	0.261	0.005	0.25	0.00505	102	75	125			
Iron (Fe)	58.4	0.3	50	1.923	113	75	125			
Nickel (Ni)	0.273	0.01	0.25	0.01191	104	75	125			
Copper (Cu)	0.269	0.01	0.25	0	107	75	125			
Zinc (Zn)	0.279	0.1	0.25	0	112	75	125			
Arsenic (As)	0.318	0.005	0.25	0.02434	117	75	125			
Selenium (Se)	0.311	0.005	0.25	0.02275	115	75	125			
Silver (Ag)	0.237	0.005	0.25	0	95	75	125			
Cadmium (Cd)	0.282	0.005	0.25	0	113	75	125			
Antimony (Sb)	0.29	0.005	0.25	0	116	75	125			
Mercury (Hg)	0.00563	0.001	0.005	0	113	75	125			
Thallium (Tl)	0.242	0.002	0.25	0	97	75	125			
Lead (Pb)	0.274	0.005	0.25	0	110	75	125			



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Date:
04-Feb-11

QC Summary Report

Work Order:
11012520

Sample Matrix Spike Duplicate

Type: MSD

Test Code: EPA Method SW6020 / SW6020A

File ID: 012611.B\056_M.D\

Batch ID: 25883

Analysis Date: 01/27/2011 14:11

Sample ID: 11012520-01AMSD

Units : mg/L

Run ID: ICP/MS_110127A

Prep Date: 01/27/2011 09:45

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Beryllium (Be)	0.305	0.004	0.25	0	122	75	125	0.2949	3.3(20)	
Chromium (Cr)	0.268	0.005	0.25	0.00505	105	75	125	0.2612	2.5(20)	
Iron (Fe)	59.7	0.3	50	1.923	116	75	125	58.35	2.3(20)	
Nickel (Ni)	0.282	0.01	0.25	0.01191	108	75	125	0.2728	3.5(20)	
Copper (Cu)	0.281	0.01	0.25	0	112	75	125	0.2687	4.4(20)	
Zinc (Zn)	0.288	0.1	0.25	0	115	75	125	0.2792	3.2(20)	
Arsenic (As)	0.328	0.005	0.25	0.02434	121	75	125	0.318	3.1(20)	
Selenium (Se)	0.317	0.005	0.25	0.02275	118	75	125	0.3106	2.0(20)	
Silver (Ag)	0.243	0.005	0.25	0	97	75	125	0.2368	2.8(20)	
Cadmium (Cd)	0.292	0.005	0.25	0	117	75	125	0.2815	3.7(20)	
Antimony (Sb)	0.302	0.005	0.25	0	121	75	125	0.29	4.1(20)	
Mercury (Hg)	0.00569	0.001	0.005	0	114	75	125	0.00563	1.1(20)	
Thallium (Tl)	0.264	0.002	0.25	0	105	75	125	0.2418	8.6(20)	
Lead (Pb)	0.285	0.005	0.25	0	114	75	125	0.2743	3.8(20)	

Comments:

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Date:
27-Jan-11

QC Summary Report

Work Order:
11012520

Method Blank

Type **MBLK** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25868** Analysis Date: **01/25/2011 16:24**
Sample ID: **MBLK-25868** Units : **mg/L** Run ID: **TOC_110125A** Prep Date: **01/25/2011 13:03**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Total Organic Carbon ND 1

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25868** Analysis Date: **01/25/2011 16:50**
Sample ID: **LCS-25868** Units : **mg/L** Run ID: **TOC_110125A** Prep Date: **01/25/2011 13:03**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Total Organic Carbon 4.81 1 5 96 74 126

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25868** Analysis Date: **01/25/2011 17:47**
Sample ID: **11012104-01AMS** Units : **mg/L** Run ID: **TOC_110125A** Prep Date: **01/25/2011 13:03**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Total Organic Carbon 8.35 1 5 3.472 97 56 137

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW9060 / SM5310C**

File ID: Batch ID: **25868** Analysis Date: **01/25/2011 18:16**
Sample ID: **11012104-01AMSD** Units : **mg/L** Run ID: **TOC_110125A** Prep Date: **01/25/2011 13:03**
Analyte Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Total Organic Carbon 8.2 1 5 3.472 95 56 137 8.347 1.8(20)

Comments:

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



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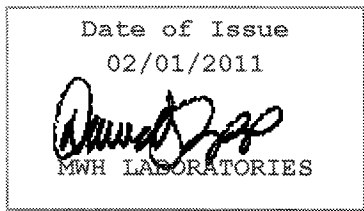
A Division of MWH Americas, Inc.

750 Royal Oak Dr., Suite 100
Monrovia, California, 91016-3629
Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attention: Reyna Vallejo
Fax: 775-355-0406



DST: David S Tripp
Project Manager



Report#: 354230
Project: SUBCONTRACT
Group: Chlorate

Laboratory certifies that the test results meet all **NELAC** requirements unless noted in the Comments section or the Case Narrative. Following the cover page are Hits Reports, Comments, QC Summary, QC Report and Regulatory Forms. This report shall not be reproduced except in full, without the written approval of the laboratory.



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Acknowledgement of Samples Received

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21
Sparks, NV 89431
Attn: Reyna Vallejo
Phone: 775-355-1044

Customer Code: ALPHA-NV
Folder #: 354230
Project: SUBCONTRACT
Sample Group: Chlorate
Project Manager: David S Tripp
Phone: (626) 386-1158
PO #: PES11012520

The following samples were received from you on **January 25, 2011**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using MWH Laboratories.

Sample #	Sample ID	Sample Date
201101250213	NGEM-As-Mob-Con-D Variable ID: PES11012520-01A Chlorate by IC	Jan 24, 2011 11:00
201101250214	NGEM-As-Mob-EOS-Lo-D Variable ID: PES11012520-02A Chlorate by IC	Jan 24, 2011 11:00
201101250215	NGEM-As-Mob-EOS-HI-D Variable ID: PES11012520-03A Chlorate by IC	Jan 24, 2011 11:00

Test Description



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Laboratory
Hits Report: 354230

Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Samples Received on:
01/25/2011

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
01/28/2011 13:17	Chlorate by IC	<u>201101250213</u> <u>NGEM-As-Mob-Con-D</u>	30000		ug/L	1000



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 Monrovia, California, 91016-3629
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 Fax: 626 386 1101
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Alpha Analytical, Inc.
 Reyna Vallejo
 255 Glendale Avenue, Suite 21
 Sparks, NV 89431

Laboratory Data
Report: 354230

Samples Received on:
 01/25/2011

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
NGEM-As-Mob-Con-D (201101250213)						Sampled on 01/24/2011 1100		
Variable ID: PES11012520-01A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/28/2011	13:17	585107	(EPA 300.0)	Chlorate by IC	30000	ug/L	1000	100
NGEM-As-Mob-EOS-Lo-D (201101250214)						Sampled on 01/24/2011 1100		
Variable ID: PES11012520-02A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/27/2011	17:19	585077	(EPA 300.0)	Chlorate by IC	ND (D1)	ug/L	50	5
NGEM-As-Mob-EOS-HI-D (201101250215)						Sampled on 01/24/2011 1100		
Variable ID: PES11012520-03A								
EPA 300.0 - Disinfection ByProducts by 300.0								
01/27/2011	17:44	585077	(EPA 300.0)	Chlorate by IC	ND (D1)	ug/L	50	5



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Tel: 626 386 1100
Fax: 626 386 1101
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Alpha Analytical, Inc.
Reyna Vallejo
255 Glendale Avenue, Suite 21
Sparks, NV 89431

Laboratory Comments
Report: #354230

Flags Legend:

D1 - Sample required dilution due to matrix.



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Laboratory
QC Summary: 354230

Alpha Analytical, Inc.

QC Ref # 585077 - Disinfection ByProducts by 300.0

201101250214 NGEM-As-Mob-EOS-Lo-D
201101250215 NGEM-As-Mob-EOS-HI-D

Analysis Date: 01/27/2011

Analyzed by: LUPE
Analyzed by: LUPE

QC Ref # 585107 - Disinfection ByProducts by 300.0

201101250213 NGEM-As-Mob-Con-D

Analysis Date: 01/28/2011

Analyzed by: LUPE



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Tel: 626 386 1100
Fax: 626 386 1101
1 800 566 LABS (1 800 566 5227)

Laboratory
QC Report: 354230

Alpha Analytical, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 585077 - Disinfection ByProducts by 300.0 by EPA 300.0					Analysis Date: 01/27/2011				
LCS1	Chlorate by IC		200	192	ug/L	96	(90-110)		
LCS2	Chlorate by IC		200	194	ug/L	97	(90-110)	20	1.0
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	9.56	ug/L	96	(75-125)		
MS_201101260104	Chlorate by IC	ND	100	95.4	ug/L	95	(80-120)		
MS_201101260161	Chlorate by IC	110	100	208	ug/L	97	(80-120)		
MSD_201101260104	Chlorate by IC	ND	100	94.7	ug/L	95	(80-120)	15	0.74
MSD_201101260161	Chlorate by IC	110	100	207	ug/L	96	(80-120)	15	1.0
QC Ref# 585107 - Disinfection ByProducts by 300.0 by EPA 300.0					Analysis Date: 01/28/2011				
LCS1	Chlorate by IC		200	196	ug/L	98	(90-110)		
LCS2	Chlorate by IC		200	196	ug/L	98	(90-110)	20	0.0
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	10.4	ug/L	104	(75-125)		
MS_201101250058	Chlorate by IC	ND	100	98.5	ug/L	99	(80-120)		
MS_201101280035	Chlorate by IC	ND	100	212	ug/L	106	(80-120)		
MSD_201101250058	Chlorate by IC	ND	100	95.9	ug/L	96	(80-120)	15	2.7
MSD_201101280035	Chlorate by IC	ND	100	215	ug/L	108	(80-120)	15	1.9

Spike recovery is already corrected for native results.
 Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
 Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
 (S) Indicates surrogate compound.
 (I) Indicates internal standard compound.
 RPD not calculated for LCS2 when different a concentration than LCS1 is used
 RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level)

CHAIN-OF-CUSTODY RECORD

NV

Alpha Analytical, Inc.

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

TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : PES11012520
Report Due By : 5:00 PM On : 08-Feb-11

Client:
Prima Environmental
5070 Robert J. Mathews Parkway
Suite 300
El Dorado Hills, CA 95762

Report Attention	Phone Number	EEmail Address
Cindy Schreier	(916) 939-7300 x	data@primaenvironmental.com

EDD Required : No

Sampled by : BB

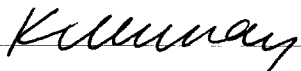
PO :
Client's COC # : 32706 Job : NGEM-As-Mob

<u>Cooler Temp</u>	<u>Samples Received</u>	<u>Date Printed</u>
0 °C	25-Jan-11	25-Jan-11

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests					Sample Remarks		
				Alpha	Sub	TAT	300_0(D)_W	300_0_W	314_W	METALS_A Q	TOC_W			
PES11012520-01A	NGEM-As-Mob-Con-D	AQ	01/24/11 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Special List	TOC			
PES11012520-02A	NGEM-As-Mob-EOS-Lo-D	AQ	01/24/11 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Special List	TOC			
PES11012520-03A	NGEM-As-Mob-EOS-Hi-D	AQ	01/24/11 11:00	6	1	10	Cl, NO3, Chlorate	Cl, NO3, Chlorate	Perchlorate	Special List	TOC			

Comments: Security seals intact. Frozen ice. Chlorate subbed to Montgomery Watson by Sac office. Cl, NO3, 6020, 9060 are field filtered. Perchlorate not field filtered, per Beth. TOC pH=2.:

	Signature	Print Name	Company	Date/Time
Logged in by:		<i>K Murray</i>	Alpha Analytical, Inc.	1/25/11 0955

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

Billing Information:

Corr **PRIMA ENVIRONMENTAL, Inc.**
 Attn **5070 Robert J. Mathews Parkway, Suite 300**
 Addr **EI Dorado Hills, CA 95762**
 City, PH: **916-939-7300** FAX: **916 939 7398**
 Pho **data@primenvironmental.com**



Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431-5778
 Phone (775) 355-1044
 Fax (775) 355-0406

Samples Collected From Which State?
 AZ CA NV WA **DOD Site**
 ID OR OTHER Page # of

Time Sampled		Date Sampled	Matrix* See Key Below	P.O. #	Lab ID Number	Office (Use Only)	Sample Description	TAT	Field Filtered	# Containers**	Analyses Required					Data Validation Level: III or IV			
Consultant / Client Name					Job #					Job Name					Global ID #				
Address					Report Attention / Project Manager					Name: C. Schreier									
City, State, Zip					Email:					Phone:					Mobile:				
ADD	1/24/11	AQ	PES/11012520-01	NGEM - AS - Mob. COND	std	**	3xP	X	X	X	X	X	X	X	REMARKS *metals = Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Tl, Zn **Cl, NO ₃ , 6020, 9060 are field filtered *CH/urate ^{sub} to MW# # 11012520				
↓	↓	↓	FOR 02	↓	↓	**	EDS-LO-D	↓	**	↓	X	X	X	X					
↓	↓	↓	03	↓	↓	**	EDS-AI-D	↓	**	↓	X	X	X	X					
FOR LAB USE ONLY																			

ADDITIONAL INSTRUCTIONS:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled by: BB

Relinquished by: (Signature/Affiliation) <u>Beth Brewer</u>	Received by: (Signature/Affiliation) <u>Sandra Silvia</u>	Date: <u>1/24/11</u>	Time: <u>1400</u>
Relinquished by: (Signature/Affiliation) <u>Sandra Silvia</u> 1-24-11 1600	Received by: (Signature/Affiliation) <u>Kellway</u>	Date: <u>1/25/11</u>	Time: <u>0950</u>
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	Date:	Time:

*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.



December 29, 2010

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762
(916) 939 7300

Re: NGEM-As-Mob

Ms. Liguori,

Attached is the report associated with five (5) aqueous samples submitted for total recoverable arsenic, arsenite, and arsenate quantitation on December 16, 2010. The samples were received on December 17, 2010 in a sealed cooler at 7.8°C. Arsenite and arsenate analysis was performed via ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS), whereas total recoverable arsenic analysis was performed via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in black ink that reads "HAKAN GÜRLEYÜK".

Hakan Gürleyük, Ph.D.
Senior Scientist
Applied Speciation and Consulting, LLC

Applied Speciation and Consulting, LLC

Report Prepared for:

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762

December 29, 2010

1. Sample Reception

Five (5) aqueous samples were submitted for total recoverable arsenic, arsenite, and arsenate quantitation on December 16, 2010. The samples were received in acceptable condition on December 17, 2010 in a sealed cooler at 7.8°C, as indicated on the attached chain of custody (COC) form.

The samples were received in a laminar flow clean hood, void of trace metals contamination and ultra-violet radiation, and assigned discrete sample identifiers. Immediately upon reception, an aliquot of each sample bottle submitted for arsenic speciation analysis was transferred into a polypropylene centrifuge tube; all splits and original bottles designated for arsenite and arsenate quantitation were then stored in a secure, monitored refrigerator (maintained at a temperature of $\leq 6^{\circ}\text{C}$) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to $\text{pH} < 2$ with concentrated HNO_3 and then stored in a secure polyethylene container, known to be free from trace metals contamination, until digestion and analysis could be performed.

2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are also monitored for contamination to account for any biases associated with the sample results.

Arsenic Speciation Analysis by IC-ICP-DRC-MS An aliquot of each sample was transferred directly into a sealed autosampler vial. No further sample preparation was performed as a buffered EDTA solution was provided by Applied Speciation and Consulting for field-preservation of the submitted samples.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO_3 (v/v) upon sample receipt. Prior to analysis, each total recoverable arsenic sample fraction was then further digested on a hotblock apparatus with aliquots of 50% HNO_3 (v/v) and 50% HCl (v/v), in accordance with the digestion procedure specified in EPA Method 200.8.

3. Sample Analysis

All sample analysis is preceded by a minimum of a five-point calibration curve spanning the entire concentration range of interest. All calibration curves, associated with each species of interest, are standardized by linear regression resulting in a response factor. All sample results are **instrument blank corrected** to account for any operational biases.

Prior to sample analysis, all calibration curves are verified using second source standards which are identified as initial calibration verification standards (ICV).

Ongoing instrument performance is identified by the analysis of continuing calibration verification standards (CCV) and continuing calibration blanks (CCB) at a minimal interval of every ten analytical runs.

Arsenic Speciation Analysis by IC-ICP-DRC-MS All samples for arsenite and arsenate quantitation were analyzed by ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS) on December 18, 2010. Aliquots of each sample are injected onto an anion exchange column and are mobilized by an alkaline (pH > 7) gradient. The eluting arsenic species are then introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

Retention times for each eluting species are compared to known standards for species identification.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS The sample digests associated with the submitted aqueous samples were analyzed for total recoverable arsenic by inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS) on December 27, 2010. Aliquots of each sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

4. Analytical Issues

The overall analyses went well and no significant analytical issues were encountered. All quality control parameters associated with these samples were within acceptance limits.

The estimated method detection limits (eMDLs) for arsenite and arsenate have been generated from replicate analyses of the lowest standard in the calibration curve. Not all arsenic species are present in preparation blanks; therefore, eMDL calculations based on preparation blanks may be artificially biased low for these species. The eMDL for total recoverable arsenic has been calculated using the standard deviation of the preparation blanks digested and analyzed concurrently with the submitted samples.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Handwritten signature of Hakan Gürleyük in black ink.

Hakan Gürleyük, Ph.D.
Senior Scientist
Applied Speciation and Consulting, LLC

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: December 29, 2010
Report Generated by: Hakan Gürleyük
Applied Speciation and Consulting, LLC

Sample Results

Sample ID	Date Sampled	Total As	As(III)	As(V)
NGEM-AS-M06-GW	12/16/10	37.8	ND (<0.074)	31.9
NGEM-AS-M06-T0	12/16/10	33.6	ND (<0.074)	28.7
NGEM-AS-M06-CON-A	12/16/10	27.4	ND (<0.074)	24.2
NGEM-AS-M06-EOS-hi-A	12/16/10	31.7	ND (<0.074)	26.2
NGEM-AS-M06-EOS-lo-A	12/16/10	32.6	3.69	25.0

All results reflect the applied dilution and are reported in µg/L
ND = Not detected at the applied dilution

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: December 29, 2010
Report Generated by: Hakan Gürleyük
Applied Speciation and Consulting, LLC

Quality Control Summary - Preparation Blank Summary

Analyte (µg/L)	PBW1	PBW2	PBW3	PBW4	Mean	StdDev	eMDL*	RL
Total As	0.204	0.139	0.132	0.115	0.148	0.039	0.118	0.40
As(III)	0.000	0.000	0.000	0.000	0.000	0.000	0.074	0.50
As(V)	0.00	0.00	0.00	0.00	0.000	0.000	0.148	0.50

eMDL = Estimated Method Detection Limit; RL = Reporting Limit

*Please see narrative regarding eMDL calculations

Quality Control Summary - Certified Reference Materials

Analyte (µg/L)	CRM	True Value	Result	Recovery
Total As	TMDA-70	40.7	41.1	101.1
As(III)	ICV	10.00	10.7	107.5
As(V)	ICV	10.00	9.76	97.6

Arsenic Results for Prima Environmental
 Project Name: NGEM-As-Mob
 Contact: Catherine Liguori

Report Date: December 29, 2010
 Report Generated by: Hakan Gürleyük
 Applied Speciation and Consulting, LLC

Quality Control Summary - Matrix Duplicates

Analyte (µg/L)	Sample ID	Rep 1	Rep 2	Mean	RPD
Total As	Batch QC	28.56	27.51	28.03	3.7
As(III)	NGEM-AS-M06-EOS-lo-A	3.685	3.811	3.748	3.3
As(V)	NGEM-AS-M06-EOS-lo-A	25.03	25.42	25.23	1.5

Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

Analyte (µg/L)	Sample ID	Spike Conc	MS Result	Recovery	Spike Conc	MSD Result	Recovery	RPD
Total As	Batch QC	1000	965.6	93.8	1000	909.3	88.1	6.0
As(III)	NGEM-AS-M06-EOS-lo-A	50.00	55.59	103.7	50.00	56.12	104.7	0.9
As(V)	NGEM-AS-M06-EOS-lo-A	50.00	72.26	94.1	50.00	73.64	96.8	1.9



January 14, 2011

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762
(916) 939 7300

Re: NGEM-As-Mob

Ms. Liguori,

Attached is the report associated with three (3) aqueous samples submitted for total recoverable arsenic, arsenite, and arsenate quantitation on December 20, 2010. The samples were received on December 21, 2010 in a sealed cooler at 9.9°C. Arsenite and arsenate analysis was performed via ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS), whereas total recoverable arsenic analysis was performed via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Gerads".

Russell Gerads
Vice President
Applied Speciation and Consulting, LLC

Applied Speciation and Consulting, LLC

Report Prepared for:

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762

January 14, 2011

1. Sample Reception

Three (3) aqueous samples were submitted for total recoverable arsenic, arsenite, and arsenate quantitation on December 20, 2010. The samples were received in acceptable condition on December 21, 2010 in a sealed cooler at 9.9°C, as indicated on the attached chain of custody (COC) form.

The samples were received in a laminar flow clean hood, void of trace metals contamination and ultra-violet radiation, and assigned discrete sample identifiers. Immediately upon reception, an aliquot of each sample bottle submitted for arsenic speciation analysis was transferred into a polypropylene centrifuge tube; all splits and original bottles designated for arsenite and arsenate quantitation were then stored in a secure, monitored refrigerator (maintained at a temperature of $\leq 6^{\circ}\text{C}$) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to $\text{pH} < 2$ with concentrated HNO_3 and then stored in a secure polyethylene container, known to be free from trace metals contamination, until digestion and analysis could be performed.

2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are also monitored for contamination to account for any biases associated with the sample results.

Arsenic Speciation Analysis by IC-ICP-DRC-MS An aliquot of each sample was transferred directly into a sealed autosampler vial. No further sample preparation was performed as a buffered EDTA solution was provided by Applied Speciation and Consulting for field-preservation of the submitted samples.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO_3 (v/v) upon sample receipt. Prior to analysis, each total recoverable arsenic sample fraction was then further digested on a hotblock apparatus with aliquots of 50% HNO_3 (v/v) and 50% HCl (v/v), in accordance with the digestion procedure specified in EPA Method 200.8.

3. Sample Analysis

All sample analysis is preceded by a minimum of a five-point calibration curve spanning the entire concentration range of interest. All calibration curves, associated with each species of interest, are standardized by linear regression resulting in a response factor. All sample results are **instrument blank corrected** to account for any operational biases.

Prior to sample analysis, all calibration curves are verified using second source standards which are identified as initial calibration verification standards (ICV).

Ongoing instrument performance is identified by the analysis of continuing calibration verification standards (CCV) and continuing calibration blanks (CCB) at a minimal interval of every ten analytical runs.

Arsenic Speciation Analysis by IC-ICP-DRC-MS All samples for arsenite and arsenate quantitation were analyzed by ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS) on January 3, 2011. Aliquots of each sample are injected onto an anion exchange column and are mobilized by an alkaline (pH > 7) gradient. The eluting arsenic species are then introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

Retention times for each eluting species are compared to known standards for species identification.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS The sample digests associated with the submitted aqueous samples were analyzed for total recoverable arsenic by inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS) on December 28, 2010. Aliquots of each sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

4. Analytical Issues

The overall analyses went well and no significant analytical issues were encountered. All quality control parameters associated with these samples were within acceptance limits.

The estimated method detection limits (eMDLs) for arsenite and arsenate have been generated from replicate analyses of the lowest standard in the calibration curve. Not all arsenic species are present in preparation blanks; therefore, eMDL calculations based on preparation blanks may be artificially biased low for these species. The eMDL for total recoverable arsenic has been calculated using the standard deviation of the preparation blanks digested and analyzed concurrently with the submitted samples.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Gerads", written in a cursive style.

Russell Gerads
Vice President
Applied Speciation and Consulting, LLC

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: January 14, 2011
Report Generated by: Russell Gerads
Applied Speciation and Consulting, LLC

Sample Results

Sample ID	Date Sampled	Total As	As(III)	As(V)
NGEM-As-Mob-Con-B	12/20/10	24.7	0.15	23.4
NGEM-As-EOS-Lo-B	12/20/10	26.0	24.0	1.03
NGEM-As-EOS-Hi-B	12/20/10	28.0	25.7	1.08

All results reflect the applied dilution and are reported in µg/L

Arsenic Results for Prima Environmental
 Project Name: NGEM-As-Mob
 Contact: Catherine Liguori

Report Date: January 14, 2011
 Report Generated by: Russell Gerads
 Applied Speciation and Consulting, LLC

Quality Control Summary - Preparation Blank Summary

Analyte (µg/L)	PBW1	PBW2	PBW3	PBW4	Mean	StdDev	eMDL*	RL
Total As	0.22	0.16	0.14	0.09	0.15	0.06	0.17	0.40
As(III)	0.88	0.35	0.24	0.19	0.41	0.32	0.044	0.50
As(V)	0.64	0.42	0.36	0.35	0.44	0.14	0.16	0.50

eMDL = Estimated Method Detection Limit; RL = Reporting Limit

*Please see narrative regarding eMDL calculations

Quality Control Summary - Certified Reference Materials

Analyte (µg/L)	CRM	True Value	Result	Recovery
Total As	TMDA-70	40.7	40.5	99.6
As(III)	ICV	10.00	9.1	91.2
As(V)	ICV	10.00	10.21	102.1

Arsenic Results for Prima Environmental
 Project Name: NGEM-As-Mob
 Contact: Catherine Liguori

Report Date: January 14, 2011
 Report Generated by: Russell Gerads
 Applied Speciation and Consulting, LLC

Quality Control Summary - Matrix Duplicates

Analyte (µg/L)	Sample ID	Rep 1	Rep 2	Mean	RPD
Total As	Batch QC	28.02	28.11	28.06	0.3
As(III)	NGEM-As-EOS-Hi-B	25.67	26.47	26.07	3.1
As(V)	NGEM-As-EOS-Hi-B	1.08	1.17	1.13	7.6

Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

Analyte (µg/L)	Sample ID	Spike Conc	MS Result	Recovery	Spike Conc	MSD Result	Recovery	RPD
Total As	Batch QC	1000	960.7	93.3	1000	905.1	87.7	6.0
As(III)	NGEM-As-EOS-Hi-B	50.00	73.97	95.8	50.00	77.08	102.0	4.1
As(V)	NGEM-As-EOS-Hi-B	50.00	46.47	90.7	50.00	49.04	95.8	5.4



January 19, 2011

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762
(916) 939 7300

Re: NGEM-As-Mob

Ms. Liguori,

Attached is the report associated with three (3) aqueous samples submitted for total recoverable arsenic, arsenite, and arsenate quantitation on December 28, 2010. The samples were received on December 29, 2010 in a sealed cooler at 0.6°C. Arsenite and arsenate analysis was performed via ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS), whereas total recoverable arsenic analysis was performed via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Gerads".

Russell Gerads
Vice President
Applied Speciation and Consulting, LLC

Applied Speciation and Consulting, LLC

Report Prepared for:

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762

January 19, 2011

1. Sample Reception

Three (3) aqueous samples were submitted for total recoverable arsenic, arsenite, and arsenate quantitation on December 28, 2010. The samples were received in acceptable condition on December 29, 2010 in a sealed cooler at 0.6°C, as indicated on the attached chain of custody (COC) form.

The samples were received in a laminar flow clean hood, void of trace metals contamination and ultra-violet radiation, and assigned discrete sample identifiers. Immediately upon reception, an aliquot of each sample bottle submitted for arsenic speciation analysis was transferred into a polypropylene centrifuge tube; all splits and original bottles designated for arsenite and arsenate quantitation were then stored in a secure, monitored refrigerator (maintained at a temperature of $\leq 6^{\circ}\text{C}$) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to $\text{pH} < 2$ with concentrated HNO_3 and then stored in a secure polyethylene container, known to be free from trace metals contamination, until digestion and analysis could be performed.

2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are also monitored for contamination to account for any biases associated with the sample results.

Arsenic Speciation Analysis by IC-ICP-DRC-MS An aliquot of each sample was transferred directly into a sealed autosampler vial. No further sample preparation was performed as a buffered EDTA solution was provided by Applied Speciation and Consulting for field-preservation of the submitted samples.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO_3 (v/v) upon sample receipt. Prior to analysis, each total recoverable arsenic sample fraction was then further digested on a hotblock apparatus with aliquots of 50% HNO_3 (v/v) and 50% HCl (v/v), in accordance with the digestion procedure specified in EPA Method 200.8.

3. Sample Analysis

All sample analysis is preceded by a minimum of a five-point calibration curve spanning the entire concentration range of interest. All calibration curves, associated with each species of interest, are standardized by linear regression resulting in a response factor. All sample results are **instrument blank corrected** to account for any operational biases.

Prior to sample analysis, all calibration curves are verified using second source standards which are identified as initial calibration verification standards (ICV).

Ongoing instrument performance is identified by the analysis of continuing calibration verification standards (CCV) and continuing calibration blanks (CCB) at a minimal interval of every ten analytical runs.

Arsenic Speciation Analysis by IC-ICP-DRC-MS All samples for arsenite and arsenate quantitation were analyzed by ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS) on January 3, 2011. Aliquots of each sample are injected onto an anion exchange column and are mobilized by an alkaline (pH > 7) gradient. The eluting arsenic species are then introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

Retention times for each eluting species are compared to known standards for species identification.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS The sample digests associated with the submitted aqueous samples were analyzed for total recoverable arsenic by inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS) on January 15, 2011. Aliquots of each sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

4. Analytical Issues

The overall analyses went well and no significant analytical issues were encountered. All quality control parameters associated with these samples were within acceptance limits.

The estimated method detection limits (eMDLs) for arsenite and arsenate have been generated from replicate analyses of the lowest standard in the calibration curve. Not all arsenic species are present in preparation blanks; therefore, eMDL calculations based on preparation blanks may be artificially biased low for these species. The eMDL for total recoverable arsenic has been calculated using the standard deviation of the preparation blanks digested and analyzed concurrently with the submitted samples.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Gerads", written over a light gray circular stamp.

Russell Gerads
Vice President
Applied Speciation and Consulting, LLC

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: January 19, 2011
Report Generated by: Russell Gerads
Applied Speciation and Consulting, LLC

Sample Results

Sample ID	Date Sampled	Total As	As(III)	As(V)
NGEM-As-Mob-Con-C	12/28/10	27.5	ND (<0.044)	22.7
NGEM-As-EOS-Lo-C	12/28/10	25.8	20.5	ND (<0.16)
NGEM-As-EOS-Hi-C	12/28/10	26.6	16.6	0.52

All results reflect the applied dilution and are reported in µg/L
ND = Not detected at the applied dilution

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: January 19, 2011
Report Generated by: Russell Gerads
Applied Speciation and Consulting, LLC

Quality Control Summary - Preparation Blank Summary

Analyte (µg/L)	PBW1	PBW2	PBW3	PBW4	Mean	StdDev	eMDL*	RL
Total As	0.068	-0.002	-0.020	0.007	0.013	0.038	0.11	0.40
As(III)	0.000	0.000	0.000	0.000	0.000	0.000	0.044	0.50
As(V)	0.000	0.000	0.000	0.000	0.000	0.000	0.16	0.50

eMDL = Estimated Method Detection Limit; RL = Reporting Limit

*Please see narrative regarding eMDL calculations

Quality Control Summary - Certified Reference Materials

Analyte (µg/L)	CRM	True Value	Result	Recovery
Total As	TMDA-70	40.7	40.1	98.5
As(III)	ICV	10.00	9.12	91.2
As(V)	ICV	10.00	10.21	102.1

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: January 19, 2011
Report Generated by: Russell Gerads
Applied Speciation and Consulting, LLC

Quality Control Summary - Matrix Duplicates

Analyte (µg/L)	Sample ID	Rep 1	Rep 2	Mean	RPD
Total As	NGEM-As-EOS-Hi-C	26.65	26.37	26.51	1.0
As(III)	NGEM-As-EOS-Hi-C	16.65	15.89	16.27	4.7
As(V)	NGEM-As-EOS-Hi-C	0.52	0.53	0.52	1.7

Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

Analyte (µg/L)	Sample ID	Spike Conc	MS Result	Recovery	Spike Conc	MSD Result	Recovery	RPD
Total As	NGEM-As-EOS-Hi-C	1000	1032	100.5	1000	1100	107.3	6.4
As(III)	NGEM-As-EOS-Hi-C	50.00	63.53	94.5	50.00	65.62	98.7	3.2
As(V)	NGEM-As-EOS-Hi-C	50.00	46.12	91.2	50.00	47.91	94.8	3.8



February 18, 2011

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762
(916) 939 7300

Re: NGEM-As-Mob

Ms. Liguori,

Attached is the report associated with three (3) aqueous samples submitted for total recoverable arsenic, arsenite, and arsenate quantitation on January 24, 2011. The samples were received on January 25, 2011 in a sealed cooler at 2.8°C. Arsenite and arsenate analysis was performed via ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS), whereas total recoverable arsenic analysis was performed via inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Russell Gerads".

Russell Gerads
Vice President
Applied Speciation and Consulting, LLC

Applied Speciation and Consulting, LLC

Report Prepared for:

Catherine Liguori
Prima Environmental
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762

February 18, 2011

1. Sample Reception

Three (3) aqueous samples were submitted for total recoverable arsenic, arsenite, and arsenate quantitation on January 24, 2011. The samples were received in acceptable condition on January 25, 2011 in a sealed cooler at 2.8°C, as indicated on the attached chain of custody (COC) form.

The samples were received in a laminar flow clean hood, void of trace metals contamination and ultra-violet radiation, and assigned discrete sample identifiers. Immediately upon reception, an aliquot of each sample bottle submitted for arsenic speciation analysis was transferred into a polypropylene centrifuge tube; all splits and original bottles designated for arsenite and arsenate quantitation were then stored in a secure, monitored refrigerator (maintained at a temperature of $\leq 6^{\circ}\text{C}$) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to $\text{pH} < 2$ with concentrated HNO_3 and then stored in a secure polyethylene container, known to be free from trace metals contamination, until digestion and analysis could be performed.

2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are also monitored for contamination to account for any biases associated with the sample results.

Arsenic Speciation Analysis by IC-ICP-DRC-MS An aliquot of each sample was transferred directly into a sealed autosampler vial. No further sample preparation was performed as a buffered EDTA solution was provided by Applied Speciation and Consulting for field-preservation of the submitted samples.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO_3 (v/v) upon sample receipt. Prior to analysis, each total recoverable arsenic sample fraction was then further digested on a hotblock apparatus with aliquots of 50% HNO_3 (v/v) and 50% HCl (v/v), in accordance with the digestion procedure specified in EPA Method 200.8.

3. Sample Analysis

All sample analysis is preceded by a minimum of a five-point calibration curve spanning the entire concentration range of interest. All calibration curves, associated with each species of interest, are standardized by linear regression resulting in a response factor. All sample results are **instrument blank corrected** to account for any operational biases.

Prior to sample analysis, all calibration curves are verified using second source standards which are identified as initial calibration verification standards (ICV).

Ongoing instrument performance is identified by the analysis of continuing calibration verification standards (CCV) and continuing calibration blanks (CCB) at a minimal interval of every ten analytical runs.

Arsenic Speciation Analysis by IC-ICP-DRC-MS All samples for arsenite and arsenate quantitation were analyzed by ion chromatography inductively coupled plasma dynamic reaction cell mass spectrometry (IC-ICP-DRC-MS) on February 14, 2011. Aliquots of each sample are injected onto an anion exchange column and are mobilized by an alkaline (pH > 7) gradient. The eluting arsenic species are then introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

Retention times for each eluting species are compared to known standards for species identification.

Total Recoverable Arsenic Quantitation by ICP-DRC-MS The sample digests associated with the submitted aqueous samples were analyzed for total recoverable arsenic by inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS) on February 9, 2011. Aliquots of each sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which preferentially reacts with arsenic, producing an entirely different mass to charge ratio (m/z) which can then be differentiated from the initial isobaric interferences. A solid-state detector detects ions transmitted through the mass analyzer on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

4. Analytical Issues

The overall analyses went well and no significant analytical issues were encountered. All quality control parameters associated with these samples were within acceptance limits.

The estimated method detection limits (eMDLs) for arsenite and arsenate have been generated from replicate analyses of the lowest standard in the calibration curve. Not all arsenic species are present in preparation blanks; therefore, eMDL calculations based on preparation blanks may be artificially biased low for these species. The eMDL for total recoverable arsenic has been calculated using the standard deviation of the preparation blanks digested and analyzed concurrently with the submitted samples.

A number of unknown arsenic species were identified in the samples identified as AGEM.As.Mob.EOS.Lo.D and AGEM.As.Mob.EOS.Hi.D. These species were considerably higher in concentration than arsenite or arsenate.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,



Russell Gerads
Vice President
Applied Speciation and Consulting, LLC

Arsenic Results for Prima Environmental
Project Name: NGEM-As-Mob
Contact: Catherine Liguori

Report Date: February 18, 2011
Report Generated by: Russell Gerads
Applied Speciation and Consulting, LLC

Sample Results

Sample ID	Date Sampled	Total As	As(III)	As(V)
NGEM-As-Mob-Con-D	1/24/11	25.6	ND (<0.11)	18.5
NGEM-As-EOS-Lo-D	1/24/11	50.7	21.8	1.14
NGEM-As-EOS-Hi-D	1/24/11	65.5	1.02	1.43

All results reflect the applied dilution and are reported in µg/L
ND = Not detected at the applied dilution

Arsenic Results for Prima Environmental
 Project Name: NGEM-As-Mob
 Contact: Catherine Liguori

Report Date: February 18, 2011
 Report Generated by: Russell Gerads
 Applied Speciation and Consulting, LLC

Quality Control Summary - Preparation Blank Summary

Analyte (µg/L)	PBW1	PBW2	PBW3	PBW4	Mean	StdDev	eMDL*	RL
Total As	0.059	0.054	0.057	0.019	0.047	0.019	0.057	0.40
As(III)	0.000	0.000	0.000	0.000	0.000	0.000	0.11	0.50
As(V)	0.005	-0.266	-0.085	-0.104	-0.112	0.113	0.27	0.50

eMDL = Estimated Method Detection Limit; RL = Reporting Limit

*Please see narrative regarding eMDL calculations

Quality Control Summary - Certified Reference Materials

Analyte (µg/L)	CRM	True Value	Result	Recovery
Total As	TMDA-70	40.7	37.0	90.8
As(III)	ICV	10.00	9.94	99.4
As(V)	ICV	10.00	9.75	97.5

Arsenic Results for Prima Environmental
 Project Name: NGEM-As-Mob
 Contact: Catherine Liguori

Report Date: February 18, 2011
 Report Generated by: Russell Gerads
 Applied Speciation and Consulting, LLC

Quality Control Summary - Matrix Duplicates

Analyte (µg/L)	Sample ID	Rep 1	Rep 2	Mean	RPD
Total As	NGEM-As-EOS-Hi-D	65.48	68.70	67.09	4.8
As(III)	NGEM-As-EOS-Hi-D	1.02	0.80	0.91	23.6
As(V)	NGEM-As-EOS-Hi-D	1.43	0.98	1.21	37.2*

*Sample concentrations are within 10x the eMDL

Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

Analyte (µg/L)	Sample ID	Spike Conc	MS Result	Recovery	Spike Conc	MSD Result	Recovery	RPD
Total As	NGEM-As-EOS-Hi-D	200.0	241.0	87.0	200.0	274.3	103.6	12.9
As(III)	NGEM-As-EOS-Hi-D	40.00	34.78	84.7	40.00	33.58	81.7	3.5
As(V)	NGEM-As-EOS-Hi-D	40.00	36.40	88.0	40.00	36.34	87.8	0.2



**APPLIED SPECIATION
AND CONSULTING, LLC**

18804 Northcreek Parkway
Bothell, WA 98011

Phone (425) 483-3300
Fax (425) 483-9818

Company Name:

Contact Person:

Address:

Phone Number:

Fax Number:

Email Address:

Project Name:

Project Number:

PO Number:

PRIMA ENVIRONMENTAL, Inc.
5070 Robert J. Mathews Parkway, Suite 300
El Dorado Hills, CA 95762
PH: 916-939-7300 FAX: 916 939 7398
data@primenvironmental.com

NGEM-As-Mob

ASC Project Manager:

By submitting of samples the client agrees to all terms and conditions set forth in the quotation provided by the ASC project manager. If you are not familiar with the term and conditions associated with your project, please contact your ASC representative as soon as possible (425) 483-3300.

Requested Turn Around Time:

Method of Sample Delivery:

Carrier Tracking Number:

Confirmation of Sample Reception: Yes No

Sample ID	Bottle ID	Date and Time	Matrix*	Volume	Preservative	Initials	Requested Analytes and Methods	Comments
NGEM-As-Mob-LOWID		1/24/11 1100	AQ	125 ml	EDTA	BB	As(III), As(V)	field filtered
↓ EDS-LO-D		↓	↓	↓	↓	↓	↓	↓
↓ EDS-HI-D		↓	↓	↓	↓	↓	↓	↓
								All six's expected to be high in perchlorate ~30 mg/L
								LOWID contains ~7500 ppb As(III) contains 15,000 ppb As(V)

Relinquished by: (sign) Both Brewer (print) Both Brewer

Received by: (sign) _____ (print) _____

Date/Time: 1/24/11 ~1130
FedEx 8747-8367-2998

Date/Time: _____

Comments: Samples collected from Nevada

Temp: _____

Relinquished by: (sign) _____ (print) _____

Received by: (sign) Nancy Cullinan (print) Nancy Cullinan

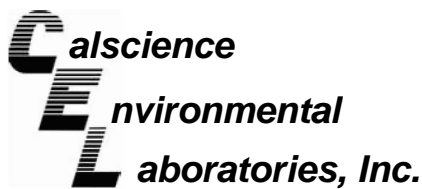
Date/Time: _____

Date/Time: 1/25/11 9:00

Temp: 2.8°C

Please account for each sample bottle as a separate line item for verification purposes.

*Matrix: Air, Freshwater (FW), seawater (SW), groundwater (GW), wastewater (WW), soil (SL), sediment (SD), tissue (TS), product (P), other (O)



December 10, 2010

Cindy Schreier
Prima Environmental
5070 Robert J. Mathews Pkwy, Ste. 300
El Dorado Hills, CA 95762-5702

Subject: **CalScience Work Order No.: 10-12-0586**
Client Reference: NGEM-AS-Mob

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 12/8/2010 and analyzed in accordance with the attached chain-of-custody.

CalScience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

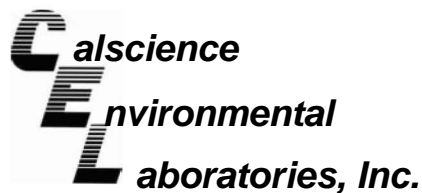
If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Stearns".

CalScience Environmental
Laboratories, Inc.
Robert Stearns
Project Manager

A handwritten signature in black ink, appearing to read "M. [unclear]".



Analytical Report



Prima Environmental
 5070 Robert J. Mathews Pkwy, Ste. 300
 El Dorado Hills, CA 95762-5702

Date Received: 12/08/10
 Work Order No: 10-12-0586

Project: NGEM-AS-Mob

Page 1 of 1

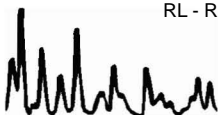
Client Sample Number	Lab Sample Number	Date Collected	Matrix
NGEM-AS-Mob-So	10-12-0586-1	12/07/10	Solid

Comment(s): (3) The reporting limit is elevated resulting from matrix interference.

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent (3)	ND	400	10		ug/kg	12/08/10	12/08/10	EPA 7199
Method Blank					N/A			Solid

Parameter	Results	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chromium, Hexavalent	ND	40	1		ug/kg	12/08/10	12/08/10	EPA 7199

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



Prima Environmental
5070 Robert J. Mathews Pkwy, Ste. 300
El Dorado Hills, CA 95762-5702

Date Received:
Work Order No:

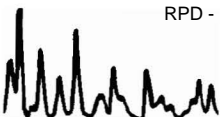
N/A
10-12-0586

Project: NGEM-AS-Mob

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Chromium, Hexavalent	EPA 7199	10-12-0313-3	12/08/10	12/8/10	101	100	75-125	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Prima Environmental
5070 Robert J. Mathews Pkwy, Ste. 300
El Dorado Hills, CA 95762-5702

Date Received:
Work Order No:

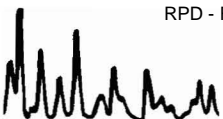
N/A
10-12-0586

Project: NGEM-AS-Mob

Matrix: Aqueous or Solid

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Chromium, Hexavalent	EPA 7199	099-05-125-2,212	12/08/10	12/08/10	104	104	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Glossary of Terms and Qualifiers



Work Order Number: 10-12-0586

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



0586

FedEx US Airbill
Express

FedEx Tracking Number

8704 0156 2328

1 From This portion can be removed for Recipient's records.

Date 12/7/10 FedEx Tracking Number 870401562328

Sender's Name CINDY SCHREIER Phone 916 435-3339

Company PRIMA ENVIRONMENTAL, INC.

Address 8070 ROBERT J MATHEWS PKY

City EL DORADO HILLS State CA ZIP 95768-3767

2 Your Internal Billing Reference

GEN - As-mob

3 To

Recipient's Name SAMPLE RECEIVING Phone 714 895-8494

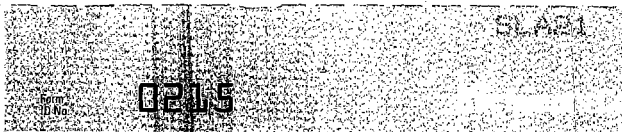
Company CA SCIENCE ENVIRON HOLD Weekday HOLD Saturday

Address 7440 LINCOLN WAY

Address GARDEN GROVE State CA ZIP 92841



8704 0156 2328



4a Express Package Service

- FedEx Priority Overnight
- FedEx Standard Overnight
- FedEx First Overnight
- FedEx 2Day
- FedEx Express Saver

4b Express Freight Service

- FedEx 1Day Freight
- FedEx 2Day Freight
- FedEx 3Day Freight

5 Packaging

- FedEx Envelope*
- FedEx Pak*
- FedEx Box
- FedEx Tube
- Other

6 Special Handling and Delivery Signature Options

- SATURDAY Delivery
- No Signature Required
- Direct Signature
- Indirect Signature

Does this shipment contain dangerous goods? No Yes Dry Ice Cargo Aircraft Only

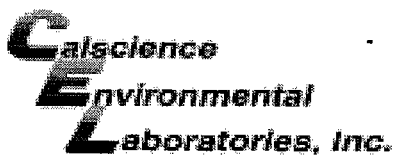
7 Payment Bill to:

- Sender Acct. No. in Section I will be billed.
- Recipient
- Third Party
- Credit Card
- Cash/Check

Total Packages Total Weight Credit Card Auth.

Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

553



WORK ORDER #: 10-12-0586

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: PRIMA ENV'L

DATE: 12/08/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C – 6.0°C, not frozen)

Temperature 2.5 °C + 0.5°C (CF) = 3.0 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter

Initial: WB

CUSTODY SEALS INTACT:

- Cooler _____ No (Not Intact) Not Present N/A
- Sample _____ No (Not Intact) Not Present

Initial: WB

Initial: _____

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

- Solid:** 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® 1ozCGJ
- Water:** VOA VOA_h VOA_{na2} 125AGB 125AGB_h 125AGB_p 1AGB 1AGB_{na2} 1AGB_s
- 500AGB 500AGJ 500AGJ_s 250AGB 250CGB 250CGB_s 1PB 500PB 500PB_{na}
- 250PB 250PB_n 125PB 125PB_{zanna} 100PJ 100PJ_{na2} _____ _____ _____

Air: Tedlar® Summa® **Other:** _____ **Trip Blank Lot#:** _____ **Labeled/Checked by:** WB

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** YC

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ zanna: ZnAc₂+NaOH f: Field-filtered **Scanned by:** WB



Laboratory Results

Cindy Schreier
PRIMA Environmental, Inc.
5070 Robert J. Mathews Parkway, Ste. 300
El Dorado Hills, CA 95762

Subject : 5 Water Samples
Project Name : NGEM-AS-MOB
Project Number :

Dear Ms. Schreier,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Project Name : **NGEM-AS-MOB**

Project Number :

Sample : **NGEM-AS-MOB-T0**

Matrix : Water

Lab Number : 75778-01

Sample Date :12/16/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/17/10 08:52

Sample : **NGEM-AS-MOB-GW**

Matrix : Water

Lab Number : 75778-02

Sample Date :12/16/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/17/10 09:12

Sample : **NGEM-AS-MOB-CON-A**

Matrix : Water

Lab Number : 75778-03

Sample Date :12/16/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/17/10 09:18

Sample : **NGEM-AS-MOB-EOS-HI-A**

Matrix : Water

Lab Number : 75778-04

Sample Date :12/16/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/17/10 09:25



Report Number : 75778

Date : 12/23/2010

Project Name : **NGEM-AS-MOB**

Project Number :

Sample : **NGEM-AS-MOB-EOS-LO-A**

Matrix : Water

Lab Number : 75778-05

Sample Date :12/16/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/17/10 09:45

Report Number : 75778

Date : 12/23/2010

QC Report : Method Blank Data

Project Name : **NGEM-AS-MOB**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/17/2010						

Report Number : 75778

Date : 12/23/2010

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **NGEM-AS-MOB**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Hexavalent Chromium	75784-07	< 1.0	5.00	5.00	5.06	5.18	ug/L	EPA 7199	12/17/10	101	104	2.20	90.0-110	10

Report Number : 75778

Date : 12/23/2010

QC Report : Laboratory Control Sample (LCS)

Project Name : **NGEM-AS-MOB**

Project Number :

<u>Parameter</u>	<u>Spike Level</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>	<u>LCS Percent Recov.</u>	<u>LCS Percent Recov. Limit</u>
Hexavalent Chromium	5.00	ug/L	EPA 7199	12/17/10	95.9	90.0-110

PRIMA ENVIRONMENTAL, Inc.
5070 Robert J. Mathews Pkwy, Ste 300
El Dorado Hills, CA 95762
PH: 916-939-7300
FAX: 916-939-7398
Fax number:
Project #: P.O. #:
Project Name:
NGEM-As-Mob

California EDF Report? Yes No
Sampling Company Log Code:
Global ID:
EDF Deliverable To (Email Address):
Bill data@primaenvironmental.com
Sampler Print Name:
Beth Brewer
Sampler Signature:
Beth Brewer

Chain-of-Custody Record and Analysis Request

Project Address:	Sampling		Container				Preservative			Matrix			
	Date	Time	40 ml VOA	Sleeve	Poly	Glass	Tedlar	HCl	HNO ₃	None	Water	Soil	Air
<u>NGEM-As-Mob-T0</u>	<u>12/6/10</u>	<u>1100</u>			X					X	X		
<u>-6W</u>					X					X	X		
<u>-6n-A</u>					X					X	X		
<u>-Eos-hi-A</u>					X					X	X		
<u>-Eos-lo-A</u>					X					X	X		

Analysis Request												TAT	
CIRCLE METHOD												<input type="checkbox"/> 12 hr	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 24 hr
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 48 hr
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 72hr
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 1 wk

For Lab Use Only

Relinquished by: Beth Brewer Date: 12/6/10 Time: _____ Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: 12/6/10 Time: 1521 Received by Laboratory: [Signature] Kiff Analytical

Remarks:
Expect high Perchlorate; concentration ~ 30mg/L.



Laboratory Results

Cindy Schreier
PRIMA Environmental, Inc.
5070 Robert J. Mathews Parkway, Ste. 300
El Dorado Hills, CA 95762

Subject : 3 Water Samples
Project Name : NGEM-As-Mob
Project Number :

Dear Ms. Schreier,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff



Report Number : 75822

Date : 12/23/2010

Project Name : **NGEM-As-Mob**

Project Number :

Sample : **NGEM-AS-MOB-CON-B**

Matrix : Water

Lab Number : 75822-01

Sample Date :12/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/21/10 08:38

Sample : **NGEM-AS-EOS-LO-B**

Matrix : Water

Lab Number : 75822-02

Sample Date :12/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/21/10 09:06

Sample : **NGEM-AS-EOS-HI-B**

Matrix : Water

Lab Number : 75822-03

Sample Date :12/20/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/21/10 09:25

Report Number : 75822

Date : 12/23/2010

QC Report : Method Blank Data

Project Name : **NGEM-As-Mob**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/21/2010						

Report Number : 75822

Date : 12/23/2010

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **NGEM-As-Mob**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Hexavalent Chromium	75822-01	< 1.0	5.00	5.00	5.37	5.37	ug/L	EPA 7199	12/21/10	96.6	96.7	0.0959	90.0-110	10

Report Number : 75822

Date : 12/23/2010

QC Report : Laboratory Control Sample (LCS)

Project Name : **NGEM-As-Mob**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Hexavalent Chromium	5.00	ug/L	EPA 7199	12/21/10	98.8	90.0-110



Laboratory Results

Cindy Schreier
PRIMA Environmental, Inc.
5070 Robert J. Mathews Parkway, Ste. 300
El Dorado Hills, CA 95762

Subject : 3 Water Samples
Project Name : NGEM-As-Mob
Project Number :

Dear Ms. Schreier,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff



Report Number : 75883

Date : 01/05/2011

Project Name : **NGEM-As-Mob**

Project Number :

Sample : **NGEM-AS-MOB-CON-C**

Matrix : Water

Lab Number : 75883-01

Sample Date :12/28/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	1.0	1.0	ug/L	EPA 7199	12/29/10 09:43

Sample : **NGEM-AS-MOB-EOS-LO-C**

Matrix : Water

Lab Number : 75883-02

Sample Date :12/28/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	1.0	1.0	ug/L	EPA 7199	12/29/10 09:52

Sample : **NGEM-AS-MOB-EOS-HI-C**

Matrix : Water

Lab Number : 75883-03

Sample Date :12/28/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/29/10 10:02

Report Number : 75883

Date : 01/05/2011

QC Report : Method Blank Data

Project Name : **NGEM-As-Mob**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	12/29/2010						

Report Number : 75883

Date : 01/05/2011

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **NGEM-As-Mob**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Hexavalent Chromium	75883-03	< 1.0	5.00	5.00	5.03	5.00	ug/L	EPA 7199	12/29/10	100	100	0.502	90.0-110	10

Report Number : 75883

Date : 01/05/2011

QC Report : Laboratory Control Sample (LCS)

Project Name : **NGEM-As-Mob**

Project Number :

<u>Parameter</u>	<u>Spike Level</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>	<u>LCS Percent Recov.</u>	<u>LCS Percent Recov. Limit</u>
Hexavalent Chromium	5.00	ug/L	EPA 7199	12/29/10	98.2	90.0-110



Laboratory Results

Cindy Schreier
PRIMA Environmental, Inc.
5070 Robert J. Mathews Parkway, Ste. 300
El Dorado Hills, CA 95762

Subject : 3 Water Samples
Project Name : NGEM.As.Mob
Project Number :

Dear Ms. Schreier,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff



Report Number : 76189

Date : 01/31/2011

Project Name : **NGEM.As.Mob**

Project Number :

Sample : **NGEM-AS-MOB-CON-D**

Matrix : Water

Lab Number : 76189-01

Sample Date :01/24/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	5.9	1.0	ug/L	EPA 7199	01/25/11 09:45

Sample : **NGEM-AS-MOB-EOS-LO-D**

Matrix : Water

Lab Number : 76189-02

Sample Date :01/24/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	01/25/11 09:54

Sample : **NGEM-AS-MOB-EOS-HI-D**

Matrix : Water

Lab Number : 76189-03

Sample Date :01/24/2011

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	01/25/11 10:04

Report Number : 76189

Date : 01/31/2011

QC Report : Method Blank Data

Project Name : **NGEM.As.Mob**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Hexavalent Chromium	< 1.0	1.0	ug/L	EPA 7199	01/25/2011						

Report Number : 76189

Date : 01/31/2011

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **NGEM.As.Mob**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Hexavalent Chromium	76156-01	< 1.0	5.00	5.00	5.10	5.40	ug/L	EPA 7199	1/25/11	102	108	5.71	90.0-110	10

Report Number : 76189

Date : 01/31/2011

QC Report : Laboratory Control Sample (LCS)

Project Name : **NGEM.As.Mob**

Project Number :

<u>Parameter</u>	<u>Spike Level</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>	<u>LCS Percent Recov.</u>	<u>LCS Percent Recov. Limit</u>
Hexavalent Chromium	5.00	ug/L	EPA 7199	1/25/11	103	90.0-110



2795 2nd Street, Suite 300
 Davis, CA 95618
 Lab: 530.297.4800
 Fax: 530.297.4802

SRG # / Lab No.

76189

Page

1 of 1

Project Contact (Use back of PDF for details): PRIMA ENVIRONMENTAL, Inc. 5070 Robert J. Mathews Parkway, Suite 300 El Dorado Hills, CA 95762 PH: 916-939-7300 FAX: 916 939 7398 data@primenvironmental.com		California EDF Report? <input type="checkbox"/> Yes <input type="checkbox"/> No Sampling Company Log Code: Global ID: EDF Deliverable To (Email Address): Bill to: Sampler Print Name: Sampler Signature: <i>Beth Brewer</i>		Chain-of-Custody Record and Analysis Request													
Project #: _____ P.O. #: _____		Project Name: NGEM-As-Mob		Analysis Request													
Project Address: _____		Sampling Date: _____ Time: _____		Container 40 ml VOA _____ Sleeve _____ Poly _____ Glass _____ Tedlar _____			Preservative HCl _____ HNO ₃ _____ None _____			Matrix Water _____ Soil _____ Air _____				CIRCLE METHOD		TAT <input type="checkbox"/> 12 hr <input type="checkbox"/> 24 hr <input type="checkbox"/> 48 hr <input type="checkbox"/> 72 hr <input checked="" type="checkbox"/> 1 wk	
Sample Designation NGEM-As-Mob-Con-D ↓ EDS-Lo-D ↓ EDS-Hi-D		Date: 1/24/11 Time: 1100		40 ml VOA Sleeve Poly 1 Glass Tedlar			HCl HNO ₃ None X			Water X Soil X Air				MTBE @ 0.5 ppb (EPA 8260B) BTEX (EPA 8260B) TPH Gas (EPA 8260B) 5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B) 7 Oxygenates (5 oxy + EIOH, MeOH) (EPA 8260B) Lead Scav. (1,2 DCA & 1,2 EDB) (EPA 8260B) Volatile Halocarbons (EPA 8260B) Volatile Organics Full List (EPA 8260B) Volatile Organics (EPA 524-2 Drinking Water) TPH as Diesel (EPA 8015M) TPH as Motor Oil (EPA 8015M) CAM 17 Metals (EPA 200.7 / 6010) 5 Waste Oil Metals (Cd,Cr,Ni,Pb,Zn) (EPA 200.7 / 6010) Mercury (EPA 245.1 / 7470 / 7471) Total Lead (EPA 200.7 / 6010) W.E.T. Lead (STLC)		(7199) X X X	01 02 03
Relinquished by: <i>Beth Brewer</i>		Date: 1/24/11		Time: _____		Received by: _____				Remarks: Expect high perchlorate, ~30mg/L Sx's are from Nevada							
Relinquished by: _____		Date: _____		Time: _____		Received by: _____											
Relinquished by: _____		Date: 01/24/11		Time: 1450		Received by Laboratory: <i>[Signature]</i> KIFF Analytical LLC											

