

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

Cindy Schreier Attn: (916) 939-7300 Phone:

(916) 393-7398 Fax:

Date Received: 12/08/10

Job: NGEM-As-Mob

> Anions by IC EPA Method 300.0

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

Roger Scholl

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



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ANALYTICAL REPORT

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Phone: (916) 939-7300 Fax: (916) 393-7398

Date Received: 12/08/10

Job: NGEM-As-Mob

Perchlorate by Ion Chromatography

EPA Method 314.0

Parameter	Concentration	Reporting	Date	Date
		Limit	Extracted	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				

Roger Scholl

Kandy Saulmer

Walter Hirehow

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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	Date	Date
			Limit	Extracted	Analyzed
Client ID: NGEM-As-Mob-GV	v				
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

Roger Scholl Kundy Santon

Walter Horidow

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

Sample results were calculated on a wet weight basis.

ND = Not Detected

Roger Scholl

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12/10/10 Report Date



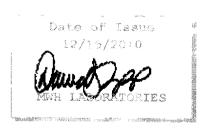
750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

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.

	aboratories.			
Sample #	Sample ID			Sample Date
201012080227	NGEM-AS-MOB-GW		 nit.	Dec 07, 2010 14:00
_	Chlorate by IC	RUSH		
Tes	t Description		_	



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	201012080227 22:23 Chlorate by IC	NGEM-AS-MOB-GW	28000		ug/L	1000

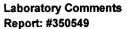


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc. Reyna Vallejo 255 Glendale Avenue, Suite 21 Sparks, NV 89431 Laboratory Data Report: 350549

Samples Received on: 12/08/2010

Prepared	Analyz	ed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
NGEM-AS-	MOB-GW	(2010	1208022	7)			Sampled on	12/07/2010 14	00
1	2/09/2010		300.0 - D 579260	isinfection ByF	Products by 300.0 Chiorate by IC	28000	ug/L	1000	100





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



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.

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

Laboratory QC Summary: 350549

Analysis Date: 12/09/2010

Analyzed by: LUPE



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.

Laboratory QC Report: 350549

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 579260 - Dis	sinfection ByProducts by 3	300.0 by EPA 300.0			A	nalysis Da	nte: 12/09/20	010	
LCS1	Chlorate by IC		200	203	ug/L	101	(90-110)		
LCS2	Chlorate by IC		200	200	ug/L	100	(90-110)	20	1.5
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	8.68	ug/L	87	(75-125)		
MS_201012010470	Chlorate by IC	120	100	217	ug/L	100	(80-120)		
MS_201012040062	Chlorate by IC	ND	100	103	ug/L	103	(80-120)		
MSD_201012010470	Chlorate by IC	120	100	217	ug/L	99	(80-120)	15	0.40
MSD_201012040062	Chlorate by IC	ND	100	98.7	ug/L	99	(80-120)	15	4.3

⁽S) Indicates surrogate compound.



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Date: 16-Dec-10			QC S	ummary	Report	<u> </u>				Work Orde 10120820	
Method Bla File ID: 20 Sample ID:	nk MB-25605	Units : mg/L	Type: N	Ba Run ID: IC	st Code: EP tch ID: 2560 1_101208A	5		Prep	Date:	12/08/2010 12:14 12/08/2010 11:49	
Analyte		Result	PQL	_	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Chloride		ND	0.5	<u> </u>							
Laboratory File ID: 21	Fortified Blank		Type: L		st Code: EP		thod 300.0	Analy	sis Date:	12/08/2010 12:33	
Sample ID: Analyte	LFB-25605	Units : mg/L Result	PQL		1_101208A SpkRefVal		C LCL(ME)	Prep UCL(ME)		12/08/2010 11:49 /al %RPD(Limit)	Qual
Chloride		49.7	0.5			99	90	110			
Sample Mat	•		Type: L	Ва	st Code: EP	5	thod 300.0	-		12/08/2010 18:06	
Sample ID: Analyte	10120802-11ALFM	Units : mg/L Result	PQL		_ 1_101208A SpkRefVal		LCL(ME)		Date: RPDRef\	12/08/2010 11:49 /al %RPD(Limit)	Qual
Chloride		87.7	0.5		52.41	71	80	120			M2
Sample Mat	rix Spike Duplicate		Type: L		est Code: EP		thod 300.0	Analy	sis Date:	12/08/2010 18:24	
Sample ID:	10120802-11ALFMD	Units : mg/L			1_101208A	-		Prep		12/08/2010 11:49	
Analyte		Result	PQL	_	, –		LCL(ME)			/al %RPD(Limit)	Qual
Chloride		89	0.5		52.41	73	80	120	87.67		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 S	ummary	Repor	t				Work Orde 10120820	
Method Blar File ID: 14	nk		Type: I		est Code: EF		thod 314.0		ate: 1	2/08/2010 15:07	—
Sample ID:	MB-25607	Units : µg/L		Run ID: IC	3_101208A			Prep Date:	1	2/08/2010 14:10	
Analyte		Result	PQL		1		LCL(ME)	UCL(ME) RPDI			Qual
Perchlorate		ND		 2							
-	Fortified Blank		Type: L	-FB Te	st Code: EF	A Met	hod 314.0			-	
File ID: 15				Ва	tch ID: 2560	7		Analysis Da	ate: 1	2/08/2010 15:25	
Sample ID:	LFB-25607	Units : µg/L		Run ID: IC_	3_101208A			Prep Date:	1	2/08/2010 14:10	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDI	RefVa	I %RPD(Limit)	Qual
Perchlorate		27.4		2 25		109	85	115			
Sample Mata	rix Spike		Type: L	FM Te	st Code: EF	A Met	hod 314.0				
File ID: 30				Ва	tch ID: 2560	7		Analysis Da	ate: 1	2/09/2010 18:34	
Sample ID:	10120905-04ALFM	Units : µg/L		Run ID: IC_	3_101208A			Prep Date:	1	2/08/2010 14:10	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPD	RefVa	I %RPD(Limit)	Qual
Perchlorate		25.8		2 25	0	103	80	120			
Sample Mati	rix Spike Duplicate		Type: i	FMD Te	st Code: EF	A Met	hod 314.0				
File ID: 31				Ва	tch ID: 2560	7		Analysis Da	ate: 1	2/09/2010 18:53	
Sample ID:	10120905-04ALFMD	Units : µg/L		Run ID: IC	3_101208A	i.		Prep Date:	1	2/08/2010 14:10	
Analyte		Result	PQL				LCL(ME)	UCL(ME) RPDF	RefVa	I %RPD(Limit)	Qual
Perchlorate		26.1	:	2 25	0	104	80		5.81	1.1(15)	_
Comments					+						

Comments:



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Date:			QC Si	ummar	y Repor	t			Work Orde 1 <u>012082</u> 0	
Method Blan	k		Type: M	IBLK Te	st Code: El	PA Met	hod SW60	20 / SW6020A		
File ID: 120810	.B\043_M.D\			Ba	tch ID: 256	08		Analysis Date:	12/09/2010 09:32	
Sample ID:	MB-25608	Units: mg/L		Run ID: ICI	P/MS_1012	09A		Prep Date:	12/08/2010 16:44	
Analyte		Result	PQL		_		LCL(ME)	UCL(ME) RPDRef		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) Arsenic (As)		ND	0.1							
Selenium (Se)		ND ND	0.005 0.005							
Silver (Ag)		ND	0.005		İ					
Cadmium (Cd)		ND	0.005							
Antimony (Sb)		ND	0.005							
Mercury (Hg)		ND	0.001							
Thallium (TI)		ND	0.002	:						
Lead (Pb)		ND	0.005							
Laboratory (Type: L	CS Te	est Code: El	PA Met	hod SW60	20 / SW6020A		
File ID: 120810	.B\044_M.D\			Ва	tch ID: 2560	08		Analysis Date:	12/09/2010 09:43	
Sample ID:	LCS-25608	Units : mg/L		Run ID: ICI	P/MS_1012	09A		Prep Date:	12/08/2010 16:44	
Analyte		Result	PQL	SpkVal	\$pkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Beryllium (Be)		0.242	0.004	0.25		97	80	120		
Chromium (Cr)		0.232	0.005			93	80	120		
Iron (Fe)		49.5	0.3			99	80	120		
Nickel (Ni) Copper (Cu)		0.242	0.01			97	80	120		
Zinc (Zn)		0.235	0.01			94	80	120		
Arsenic (As)		0.248 0.244	0.1 0.005			99 98	80 80	120 120		
Selenium (Se)		0.239	0.005			96 95	80	120		
Silver (Ag)		0.219	0.005			88	80	120		
Cadmium (Cd)		0.241	0.005			96	80	120		
Antimony (Sb)		0.245	0.005			98	80	120		
Mercury (Hg)		0.00434	0.001	0.005		87	80	120		
Thallium (TI)		0.225	0.002			90	80	120		
Lead (Pb)		0.24	0.005	0.25		96	80	120		
Sample Matr			Type: M	IS Te	st Code: Ef	PA Met	hod SW60	20 / SW6020A		
File ID: 120810				Ba	tch ID: 2560	08		Analysis Date:	12/09/2010 10:12	
	10120820-01AMS	Units : mg/L			P/MS_1012			Prep Date:	12/08/2010 16:44	
Analyte		Result	PQL	SpkVal	\$pkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Beryllium (Be)		0.241	0.004		0	96	75	125		
Chromium (Cr)		0.214	0.005		0	86	75	125		
Iron (Fe) Nickel (Ni)		49.7	0.3		1.643	96	75 75	125		
Copper (Cu)		0.253	0.01		0.01408	95 07	75 75	125		
Zinc (Zn)		0.241 0.273	0.01 0.1		0	97 109	75 75	125 125		
Arsenic (As)		0.273	0.005		0.03367	103	75 75	125		
Selenium (Se)		0.249	0.005		0.03307	96	75 75	125		
Silver (Ag)		0.216	0.005		0.01041	87	75	125		
Cadmium (Cd)		0.245	0.005		Ö	98	75	125		
Antimony (Sb)		0.25	0.005		0	100	75	125		
Mercury (Hg)		0.00461	0.001		0	92	75	125		
Thallium (TI)		0.232	0.002		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 Su	ımmary	Repor	t				Work Orde 10120820	
Sample Matrix Spike Duplicate		Type: M	SD Te	st Code: EF	A Met	hod SW60	20 / SW6	020A		
File ID: 120810.B\050_M.D\			Ba	tch ID: 2560	8		Analy	sis Date: 12	2/09/2010 10:17	
Sample ID: 10120820-01AMSD	Units : mg/L	l	Run ID: ICI	/MS_1012	09A		Prep	Date: 12	2/08/2010 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 (TI)	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 Su	ımmary	Report	ţ			Work Ordo 10120820	
Method Blank File ID: 120810.B\020_M.D\		Type: MI				hod SW60	020 / SW6020A	40/00/0040 45:00	
	1.1-24			tch ID: 2559				12/08/2010 15:08	
Sample ID: MB-25596 Analyte	Units : mg/K	_		/MS_10120		. 01 (145)	Prep Date:	12/07/2010 10:43	^
	Result	PQL	Spkvai	SpkRetVal	%REC	LCL(ME)	UCL(ME) RPDRe	rvai %RPD(Limit)	Qual
Beryllium (Be) Chromium (Cr)	ND ND	1							
Iron (Fe)	ND ND	1 500							
Nickel (Ni)	ND	2							
Copper (Cu)	ND	2							
Zinc (Zn)	ND	20							
Arsenic (As) Selenium (Se)	ND	1							
Silver (Ag)	ND ND	1							
Cadmium (Cd)	ND	1							
Antimony (Sb)	ND	i							
Mercury (Hg)	ND	0.2							
Thallium (TI)	ND	1							
Lead (Pb)	ND	1				_			
Laboratory Control Spike		Type: LC	S Te	st Code: EP	A Meti	hod SW60)20 / SW6020A		
File ID: 120810.B\021_M.D\			Bat	tch ID: 2559	6		Analysis Date:	12/08/2010 15:14	
Sample ID: LCS-25596	Units : mg/K	(g	Run ID: ICP	/MS_10120	8A		Prep Date:	12/07/2010 10:43	
Analyte	Result	PQL		_		LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Beryllium (Be)	23.9	1	25		96	80	120		
Chromium (Cr)	24.2	1	25		97	80	120		
Iron (Fe) Nickel (Ni)	4730 23.9	500	5000 25		95 95	80	120 120		
Copper (Cu)	23.9 24.5	2	25 25		95 98	80 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) Cadmium (Cd)	21.7 23.5	1	25		87	80	120		
Antimony (Sb)	23.5 21.7	1	25 25		94 87	80 80	120 120		
Mercury (Hg)	0.44	0.2	0.5		88	80	120		
Thallium (TI)	22.2	1	25		89	80	120		
Lead (Pb)	23.3	1	25		93	80	120		
Sample Matrix Spike		Type: MS	S Te	st Code: EP	A Meti	nod SW60	20 / SW6020A		
File ID: 120810.B\026_M.D\				ch ID: 2559			Analysis Date:	12/08/2010 15:43	
Sample ID: 10120622-01AMS	Units : mg/K	∑g f	Run ID: ICP	/MS_10120	8A		Prep Date:	12/07/2010 10:43	
Analyte	Result	PQL	SpkVal 3	SpkRefVal ¹	%REC	LCL(ME)	UCL(ME) RPDRef	Val_%RPD(Limit)	Qual
Beryllium (Be) Chromium (Cr)	24.5	1	25 25	0	98	75	125		MO
Iron (Fe)	26.2 21000	500	25 5000	8.6	70 40	75 75	125 125		M2 M3
Nickel (Ni)	27.1	500	5000 25	22960 7.724	-40 77	75 75	125		IVIO
Copper (Cu)	54.2	2 2	25 25	34.74	78	75 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) Antimony (Sb)	23.2	1	25	0	93	75 75	125		
Mercury (Hg)	23.1 0.467	1 0.2	25 0.5	0	92 93	75 75	125 125		
Thallium (TI)	22.4	1	25	0	90	75 75	125		
Lead (Pb)	27.7	1	25	5.768	88	75	125		



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									er:	
Sample Matrix Spike Duplicate File ID: 120810.B\027_M.D\		Type: MSD Test Code: EPA Method SW6020 / SW6020A Batch ID: 25596 Analysis Date: 12/0									
Sample ID: 10120622-01AMSD	Units : mg/	Kg F	Run ID: IC	P/MS_1012	A80		Prep	Date: 1:	2/07/2010 10:43		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual	
Beryllium (Be) Chromium (Cr)	25.3 28.5	1 1	25 25	0 8.6	101 80	75 75	125 125	24.5 26.22	3.1(20) 8.5(20)		
Iron (Fe)	22900	500	5000	22960	-0.6	75	125	20980	8.9(20)	МЗ	
Nickel (Ni) Copper (Cu) Zinc (Zn)	28.4 55 109	2 2 20	25 25 25	7.724 34.74 91.08	83 81 72	75 75 75	125 125 125	27.07 54.24 103.5	4.6(20) 1.4(20) 5.4(20)	M2	
Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Antimony (Sb)	24.7 22.6 21.7 23.8	1 1 1	25 25 25 25	1.543 0 0	93 90 87 95	75 75 75 75	125 125 125 125	24.97 22.62 20.4 23.24	1.1(20) 0.0(20) 6.2(20) 2.6(20)		
Mercury (Hg) Thallium (TI) Lead (Pb)	23.4 0.471 23.1 28.4	0.2 1 1	25 0.5 25 25	0 0 0 5.768	94 94 92 91	75 75 75 75	125 125 125 125	23.11 0.4665 22.44 27.66	1.4(20) 1.0(20) 2.9(20) 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.

Page: 1 of 1

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

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

Client:
Prima Environmental

5070 Robert J. Mathews Parkway

Suite 300

El Dorado Hills, CA 95762

T. (775) 255 1044 EAV. (7

Phone Number

EMail Address

Cindy Schreier (916) 939-7300 x

data@primaenvironmental.com

EDD Required : No

NVR: 1!

WorkOrder: PES10120820

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

Sampled by: RG

4 °C

Cooler Temp

Samples Received 08-Dec-10 Date Printed
10-Dec-10

PO:

Client's COC #: 32693

ob : NGEM-As-Mob

Signature

Report Attention

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

							Requested Tests					
Alpha	Client		Collection	No. of	Bottle	S	300_0(D)_	300_0_W	314_W	METALS_A	METALS_S	
Sample ID	Sample ID	Matrix	Date	Alpha	Sub	TAT	**			: W		Sample Remarks
PES10120820-01A	NGEM-As-Mob-GW	AQ	12/07/10 14:00	4	2	2	Cl, Chlorate	Cl, Chlorate	Perchlorate	Special List	i	
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

Logged in by: Killinay

Kminay

Print Name

Company

Alpha Analytical, Inc.

12/10/10 0930

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:

Suite 300

Client's COC #: 32693

Prima Environmental

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

Client:

PO:

CHAIN-OF-CUSTODY RECORD

NVR = 1!

WorkOrder: PES10120820

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

Perchlorate due 12-13-10

Page: 1 of 1

Alpha Analytical, Inc.

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

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

Report Attention

Phone Number

EMail Address

Cindy Schreier

(916) 939-7300 x

data@primaenvironmental.com

EDD Required: No

Sampled by: RG

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	Client	Collection	No. of	Bottles	;	300_0(D)_	300_0_W	314_W	METALS_A	METALS_S	
Sample ID	Sample ID	Matrix Date	Alpha	Sub	TAT	W		: 	Q	0	Sample Remarks
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

Signature

Print Name

Company

Date/Time

Logged in by:

K Munay

K Muray

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

Suite 300

Prima Environmental

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

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

Report Attention

Phone Number

EMail Address

Cindy Schreier

(916) 939-7300 x

data@primaenvironmental.com

EDD Required: No

Sampled by: RG

4°C

PO:

Client:

Client's COC #: 32693

El Dorado Hills, CA 95762

5070 Robert J. Mathews Parkway

Job: NGEM-As-Mob

Cooler Temp

Samples Received 08-Dec-10

NV R Jage: 1 of 1

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

WorkOrder: PES10120820

Date Printed 08-Dec-10

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

							Requested Tests					
Alpha	Client	Collection	No. of	Bottles	;	300_0(D)_	300_0_W	314_W	METALS_A	METALS_S		:
Sample ID	Sample ID	Matrix Date	Alpha	Sub	TAT	W			Q	0		Sample Remarks
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		1

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

Logged in by:

KMUMay

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

																	*	2693
	a Info	rmatio	on:			Alpha A	nalytica	al, In	c.	Sar	nples	Coll	lecte	d Fro	m Wi	gich S	State?) Site
Comp	PRIMA	A ENVI	RONMENTAL, Inc.			255 Glendal Sparks, Nev	e Avenue,	Suite	21	ID.		OR	`	N\ . OTI	HER .		Page #	: 1
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	Sample	See Key Below	Lab ID Number (Use Only)		Sample Description		TAT	Field Filtered	# Containers**	Chlorida	Nitrope (280)	37 / COO 9	Perchange I	305	ر (در/	3	/	RKS
1400	12/7/0	AQ	PES10120820-01	NGEM-	AS-Mob-	(2W)	48hrs	Y	2-P,1-0	水		X					*6020 Me	etak =
			***		45-Majo-		48ks	N	3V				X				Sb, AS, P	
					As-Mob		Stal	7	1P		X						Cr, (۷, F	=e, Pb,
4		1			AS-MOb.		Std	Y	10T						X		Hay Ni,	Se, Ag,
1300		50			45-Mob-		548		15			}		X			$t_{1,2n}$, J,
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NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.



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

ANALYTICAL REPORT

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

Cindy Schreier Attn: Phone: (916) 939-7300

(916) 393-7398 Fax:

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

Date Sampled 12/07/10 14:00

8.1

1.3 mg/L

12/08/10 11:49 12/08/10 13:10

Roger Scholl

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



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** (916) 939-7300 Phone: (916) 393-7398 Fax:

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	12/14/10
Date Sampled 12/07/10 13:00	Chromium (Cr)	ND	0.10 mg/L	12/14/10	12/14/10
	Iron (Fe)	9.5	0.10 mg/L	12/14/10	12/14/10
	Nickel (Ni)	ND	0.10 mg/L	12/14/10	12/14/10
	Copper (Cu)	0.27	0.20 mg/L	12/14/10	12/14/10
	Zinc (Zn)	ND	2.0 mg/L	12/14/10	12/14/10
	Arsenic (As)	ND	0.10 mg/L	12/14/10	12/14/10
	Selenium (Se)	ND	0.10 mg/L	12/14/10	12/14/10
	Silver (Ag)	ND	0.10 mg/L	12/14/10	12/14/10
	Cadmium (Cd)	ND	0.10 mg/L	12/14/10	12/14/10
	Antimony (Sb)	ND	0.10 mg/L	12/14/10	12/14/10
	Mercury (Hg)	ND	0.10 mg/L	12/14/10	12/14/10
	Thallium (Tl)	ND	0.10 mg/L	12/14/10	12/14/10
	Lead (Pb)	ND	0.10 mg/L	12/14/10	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 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



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 Date Sampled 12/07/10 13:00	Chromium (Cr), Hexavalent (+6)	ND	0.40 mg/L	12/14/10 12:36	12/14/10 12:36

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

amento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.con 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

NGEM-As-Mob



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

Cindy Schreier Attn:

(916) 939-7300 Phone: (916) 393-7398 Fax:

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 Date Sampled 12/07/10 14:00	4.4	1.0 mg/L	12/14/10	12/14/10

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / 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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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 S	ummar	y Repor	t				Work Orde 10120821	
Method Blank File ID: 20		Type N		est Code: E		thod 300.0	Analysis	Date:	12/08/2010 12:14	
Sample ID: MB-25605	Units: mg/L		Run ID: IC	1_101208	A		Prep Da	te:	12/08/2010 11:49	
Analyte	Result	PQL				LCL(ME)	UCL(ME) RI	PDRefV	/al %RPD(Limit)	Qual
Nitrate (NO3) - N	ND	0.25	5							
Laboratory Fortified Blank		Type L	FB To	est Code: E	PA Met	thod 300.0				
File ID: 21			Ва	atch ID: 256	05		Analysis	Date:	12/08/2010 12:33	
Sample ID: LFB-25605	Units : mg/L		Run ID: IC	_1_101208	4		Prep Da	te:	12/08/2010 11:49	
Analyte	Result	PQL				LCL(ME)	UCL(ME) RI	PDRefV	/al %RPD(Limit)	Qual
Nitrate (NO3) - N	5.29	0.25	5 5		106	90	110			_
Sample Matrix Spike		Type L	FM To	est Code: E	PA Met	thod 300.0				
File ID: 39			Ва	atch ID: 256	05		Analysis	Date:	12/08/2010 18:06	
Sample ID: 10120802-11ALFM	Units: mg/L		Run ID: IC	_1_101208	A		Prep Da	te:	12/08/2010 11:49	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RI	PDRefV	/al %RPD(Limit)	Qual
Nitrate (NO3) - N	6.78	0.25	5 5	1.539	105	80	120			
Sample Matrix Spike Duplicate		Type L	FMD To	est Code: E	PA Met	thod 300.0			·	
File ID: 40			Ва	atch ID: 256	05		Analysis	Date:	12/08/2010 18:24	
Sample ID: 10120802-11ALFMD	Units: mg/L		Run ID: IC	_1_101208/	Ą		Prep Da	te:	12/08/2010 11:49	
Analyte	Result	PQL				LCL(ME)	UCL(ME) RI	PDRefV	al %RPD(Limit)	Qual
Nitrate (NO3) - N	6.9	0.25		1.539		80	120	6.779		

Comments:



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Date: 21-Dec-10	(QC S	ummaı	y Repor	t			Work Ordo 10120821	
Method Blank File ID: 121310.B\067_M.D\		Type: N		Fest Code: EF		thod SW60	020 / SW6020A Analysis Dat	te: 12/13/2010 22:19	
Sample ID: MB-25627	Units: mg/L		Run ID: IC	CP/MS_1012	13C		Prep Date:	12/13/2010 10:49	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDR	tefVal %RPD(Limit)	Qual
Beryllium (Be)	ND	0.004	<u> </u>	· · · · · · · · · · · · · · · · · · ·			·		
Chromium (Cr)	ND	0.005							
Iron (Fe)	ND	0.3	3						
Nickel (Ni)	ND	0.01							
Copper (Cu) Zinc (Zn)	ND	0.01							
Arsenic (As)	ND	0.1							
Selenium (Se)	ND	0.005							
Silver (Ag)	ND ND	0.005							
Cadmium (Cd)	ND	0.005							
Antimony (Sb)	ND	0.005							
Mercury (Hg)	ND	0.001							
Thallium (TI)	ND	0.002							
Lead (Pb)	ND	0.005	5						
Laboratory Control Spike		Type: L				thod SW60	20 / SW6020A		
File ID: 121310.B\068_M.D\			В	latch ID: 2562	?7		Analysis Dat	te: 12/13/2010 22:25	
Sample ID: LCS-25627	Units : mg/L		Run ID: IC	P/MS_10121	3C		Prep Date:	12/13/2010 10:49	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDR	efVal %RPD(Limit)	Qual
Beryllium (Be)	0.261	0.004	0.25	-	104	80	120		
Chromium (Cr)	0.243	0.005			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) Zinc (Zn)	0.245	0.01			98	80	120		
Arsenic (As)	0.265	0.1			106	80	120		
Selenium (Se)	0.256 0.254	0.005			102	80	120		
Silver (Ag)	0.234	0.005 0.005			102 92	80 80	120 120		
Cadmium (Cd)	0.263	0.005			105	80	120		
Antimony (Sb)	0.262	0.005			105	80	120		
Mercury (Hg)	0.00425	0.001			85	80	120		
Thallium (TI)	0.23	0.002			92	80	120		
Lead (Pb)	0.262	0.005			105	80	120		
Sample Matrix Spike		Type: M	IS T	est Code: EP	A Met	hod SW60	20 / SW6020A		
File ID: 121310.B\073_M.D\			В	atch ID: 2562	7		Analysis Dat	e: 12/13/2010 22:53	
Sample ID: 10121023-01AMS	Units : mg/L		Run ID: IC	P/MS_10121	3C		Prep Date:	12/13/2010 10:49	
Analyte	Result	PQL	SpkVal	SpkRefVal ⁴	%REC	LCL(ME)	UCL(ME) RPDR	efVal %RPD(Limit)	Qual
Beryllium (Be)	0.273	0.004	0.25	0	109	75	125		
Chromium (Cr)	0.238	0.005			95	75	125		
Iron (Fe)	65.6	0.3	50	12.92	105	75	125		
Nickel (Ni) Copper (Cu)	0.258	0.01	0.25	0	103	75	125		
Zinc (Zn)	0.241	0.01		0	96	75	125		
Arsenic (As)	0.27	0.1		0	108	75 75	125		
Selenium (Se)	0.264 0.259	0.005		0	105	75 75	125		
Silver (Ag)	0.259 0.226	0.005 0.005		0	104	75 76	125		
Cadmium (Cd)	0.259	0.005		0	90 104	75 75	125 125		
Antimony (Sb)	0.258	0.005		0	103	75 75	125		
Mercury (Hg)	0.00439	0.001	0.005	0	88	75 75	125		
Thallium (TI)	0.237	0.002		ŏ	95	75	125		
Lead (Pb)	0.259	0.005		Ö	103	75	125		



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Date: 21-Dec-10	### OF PARTIES AND TOTAL PROPERTY OF THE								Work Orde 10120821	
Sample Matrix Spike Duplicate File ID: 121310.B\074_M.D\									2/13/2010 22:59	
Sample ID: 10121023-01AMSD	Units: mg/L	F	Run ID: IC	P/MS_1012	13C		Prep	Date: 1	2/13/2010 10:49	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVa	I %RPD(Limit)	Qua
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	Ō	91	75	125	0.004388	3.3(20)	
Thallium (TI)	0.239	0.002	0.25	Ö	96	75	125	0.2372	0.8(20)	
Lead (Pb)	0.262	0.005	0.25	Ō	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 N		est Code: E		hod 7196			12/14/2010 12:34	
Sample ID: MBLK-W1214CR	Units : mg/L		Run ID: W	ETLAB_101	1214F		Prep i	Date:	12/14/2010 12:34	
Analyte	Result	PQL		_		LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	ND	0.02	-				·			
Laboratory Control Spike		Type L	.cs T	est Code: E	PA Met	hod 7196	A/SM35000	Cr-D		
File ID:			В	atch ID: W1:	214CR		Analy	sis Date:	12/14/2010 12:33	
Sample ID: LCS-W1214CR	Units: mg/L		Run ID: W	ETLAB_101	1214F		Prep l	Date:	12/14/2010 12:33	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	0.314	0.02	9 0.3		105	85	115			_
Sample Matrix Spike		Type N	IS T	est Code: E	PA Met	hod 7196	A/SM35000	Cr-D		
File ID:			8	atch ID: W1:	214CR		Analy	sis Date:	12/14/2010 12:35	
Sample ID: 10121404-01AMS	Units: mg/L		Run ID: W	ETLAB_101	1214F		Prep I	Date:	12/14/2010 12:35	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Chromium (Cr), Hexavalent (+6)	0.322	0.02	0.3	0.024	99	85	115			
Sample Matrix Spike Duplicate		Type N	ISD T	est Code: E	PA Met	hod 7196	VSM35000	Cr-D		
File ID:			В	atch ID: W1:	214CR		Analy	sis Date:	12/14/2010 12:35	
Sample ID: 10121404-01AMSD	Units: mg/L		Run ID: W	ETLAB_101	1214F		Prep (Date:	12/14/2010 12:35	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	/al %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 Batch ID: 25631 Analysis Date: 12	
Sample ID: MBLK-25631 Analyte	Units: mg/L Run ID: TOC_101214A Prep Date: 12 Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal	2/14/2010 09:25 %RPD(Limit) Qual
Total Organic Carbon	ND 1	7011 D(E.IIII) Q081
Laboratory Control Spike	Type LCS Test Code: EPA Method SW9060 / SM5310C	
File ID: Sample ID: LCS-25631 Analyte	Batch ID: 25631 Analysis Date: 12 Units: mg/L Run ID: TOC_101214A Prep Date: 12 Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal	2/14/2010 09:25
Total Organic Carbon	4.69 1 5 94 74 126	70.0 5(2)
Sample Matrix Spike File ID:	Type MS Test Code: EPA Method SW9060 / SM5310C Batch ID: 25631 Analysis Date: 12	<u></u>
Sample ID: 10120821-01AMS Analyte	Units : mg/L Run ID: TOC_101214A Prep Date: 12 Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal	2/14/2010 09:25 %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 Batch ID: 25631 Analysis Date: 12	2/14/2010 13:32
Sample ID: 10120821-01AMSD Analyte		2/14/2010 09:25
Total Organic Carbon	6.87 1 2.5 4.364 100 56 137 6.825	0.7(20)

Comments:

Billing Information:

CHAIN-OF-CUSTODY RECORD

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

Alpha Analytical, Inc.

NV

Page: 1 of 1

WorkOrder: PES10120821

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

Client:

EDD Required: No

Sampled by: RG

4°C

Suite 300

El Dorado Hills, CA 95762

5070 Robert J. Mathews Parkway

Prima Environmental

Cooler Temp

Samples Received 08-Dec-10 Date Printed
08-Dec-10

PO:

Client's COC #: 32693

Job: NGEM-As-Mob

Final Rot, MBLK, LCS, MS/MSD With Surrogates

						i			Requeste	ed Tests	5	
Alpha	Client	Collection	No. of	Bottles	i	300_0_W			SPLPMOD_	TOC_W	' !	 ,
Sample ID	Sample ID	Matrix Date	Alpha	Sub	TAT		Q	R6_W	SV_PREP			 Sample Remarks
PES10120821-01A	NGEM-As-Mob-GW	AQ 12/07/10 14:00	2	0	10	NO3	1		5	тос	İ	
PES10120821-02A	NGEM-As-Mob-SO	SO : 12/07/10 13:00	1	0	10		SPLP Special List	SPLP Cr6+	SPLP - MODIFIED (DI H2O)		i i	

Comments:

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

Logged in by: /Culluay

Kmmay

Print Name

Company

Alpha Analytical, Inc.

Date/Time
/2/8//0 /020

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

Comp Attn:	PRIMA 5070 R	obert J	RONMENTAL, Inc.	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Phone (775) 355-1044							Samples Collected From Which State? AZ CA NV _X WA DOD Site ID OR OTHER Page # __ of						93 or	
City, {	PH: 91 data@ _i	16-939-7 primen	vironmental.com			Fax (775)							nalys	ses R	equired	 	Data Validatio	
Addres		ent Nam	e	Job #		nention / Project	Name NGE Manager	M-	-AS-Ma	\d \	Wiffing (3.00)		: /.	/ */يو	. /	/	Level: III or	
Time	Date Sampled	Matrix* See Key	•	Email:	ample Description	Mobile: _	TAT	Field Filtered	d # Containers**	1000	J. J. J. J. J. J. J. J. J. J. J. J. J. J		Perchange !	P P	رر /۔ /در/	- 1		NO
1400	12/7/10	AQ	(Use Only)	NGEM-A	5-Mob-	GW	48hs	Y	9-b	X	/ < /	X		<i>, ,</i> ,		*60	REMARKS	<u></u>
			PES10120821-01	NGEM-	45-Mob-	6W	48hrs 5+2	7	3V 1P		X		X			<u></u>	As, Be, (U, Fe,	Pb,
1300		50		NGEM-A	5-Mob-	Set	Std	Y	10T					X		11,	, Nî, Se, Zn	Ag
	4	V	υ, _Α ι	NGEM-	ts-Mob-	So	48ho		15			X					PLP=5b, A	
		_	S S S S S S S S S S S S S S S S S S S													Be	· Col, Cr, C	V ₁
							ļ									_\Ns	Se. Ag,	
	TION		NSTRUCTIONS:													DO NE	2 con poly	to
Hi	1h	Sald	S high Percles to the validity and authenticity											no of o	allaction i	\$ 00 all	1e 50:1 ja	ts
groun	ds for le	egal acti : (Signatu	ion (NAC 445.0636 (c) (2)). Samplere/Affiliation)	pled By: Q.(ed by: (Signature//			EX						ate: 12/7//		Time: 1800	
Relinquished by: (Signature/Affiliation)						ed by: (Signature/A	Mu	U.B	ey 1s	31				Dá	ate: 2/8/10		Time: 1005	
	ished by:	(Signatu	re/Affiliation) re/Affiliation) SO - Soil WA - Wast	re OT - Othe	Receive	ed by: (Signature/A	Muffiliation)	<i>(()</i>	S-Soil Jar		Orbo	 		Da	_	P-Plas	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



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ANALYTICAL REPORT

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

Attn: Cindy Schreier (916) 939-7300 Phone:

Fax:

(916) 393-7398

Date Received: 12/17/10

Job:

NGEM-As-Mob

Anions by IC EPA Method 300.0

	Parameter	Conce	ntration	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-Co	n-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-EO	OS-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-EQ	OS-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

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.



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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 Date Sampled 12/16/10 11:00		25,100	2,000 μg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-Co Lab ID: PES10121720-02A Date Sampled 12/16/10 11:00		23,100	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-EC Lab ID: PES10121720-03A Date Sampled 12/16/10 11:00		23,700	2,000 μg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-EC Lab ID: PES10121720-04A Date Sampled 12/16/10 11:00		22,300	2,000 µg/L	12/22/10	12/22/10

Roger Scholl Randy Saulan Walter Atrihan

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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ANALYTICAL REPORT

Attn:

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

Phone: (916) 939-7300 Fax: (916) 393-7398

Date Received: 12/17/10

Cindy Schreier

Job: NGEM-As-Mob

Metals by ICPMS EPA Method SW6020 / SW6020A

	Parameter	Concentration	Reporting	Date	Date
			Limit	Extracted	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-Co	n-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

NGEM-As-Mob



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Client ID: NGEM-As-Mob-EO	S-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-EO	OS-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 (T1)	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 Kandy Saulin Walter Hinchman, Quality Assurance Officer

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

Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / 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



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ANALYTICAL REPORT

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

Cindy Schreier Attn: (916) 939-7300 Phone:

(916) 393-7398 Fax: Date Received: 12/17/10

NGEM-As-Mob Job:

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

	Parameter	Concer	ntration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-T0 Lab ID: PES10121720-01A Date Sampled 12/16/10 11:00	Total Organic Carbon	3.8	*	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Co Lab ID: PES10121720-02A Date Sampled 12/16/10 11:00	·· · ·	3.4	*	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-EO Lab ID: PES10121720-03A Date Sampled 12/16/10 11:00		160	*	40 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-EO Lab ID: PES10121720-04A 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

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.

Report Date



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

Date: 28-Dec-10		(QC Si	ımmar	y Repor	t				Work Orde 10121720	
Method Blar File ID: 20 Sample ID: Analyte	nk MB-25681	Units : mg/L Result	Type M	Ba Run ID: IC	est Code: E atch ID: 256 _1_101221 SpkRefVal	81 A		Prep	Date:	12/21/2010 11:56 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N .	ND ND	0.5 0.25		·	-					
Laboratory : File ID: 21 Sample ID: Analyte	Fortified Blank LFB-25681	Units : mg/L Result	Type L PQL	Ba Run ID: IC	est Code: E atch ID: 256 _ 1_101221 SpkRefVal	81 A		Prep	Date:	12/21/2010 12:15 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	49.6 5.16	0.5 0.25	50	•	99 103	90	110 110		· · ·	
Sample Matt File ID: 80 Sample ID: Analyte	rix Spike 10122145-13ALFM	Units : mg/L Result	Type L	Ba Run ID: IC	est Code: E atch ID: 256 _1_101221 SpkRefVal	81 A		Prep	Date:	12/22/2010 06:28 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	59.4 6.4	0.5 0.25	50	13.31 1.641	92 95	80 80	120 120			
Sample Matr File ID: 81 Sample ID: Analyte	rix Spike Duplicate	Units : mg/L Result	Type L	Ba Run ID: IC	est Code: E atch ID: 256 _1_101221 SpkRefVal	81 A		Prep	Date:	12/22/2010 06:46 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	60.4 6.53	0.5 0.25	50	13.31 1.641	94	80 80	120 120	59.42 6.403	2 1.6(15)	

Comments



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Date: 28-Dec-10			QC S	umma	ry Repor	t			Work Ore 1012172	
Method Bla	nk		Type I		Test Code: E		thod 314.0	Analysis Da	ate: 12/22/2010 12:54	<u> </u>
Sample ID:	MB-25691	Units : µg/L		Run ID: I	C_3_101222	A		Prep Date:	12/22/2010 11:58	3
Analyte		Result	PQL	SpkVa	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Perchlorate		ND	:	2						
Laboratory File ID: 15	Fortified Blank		Type I		Test Code: E		thod 314.0	Analysis Da	ate: 12/22/2010 13:1	3
Sample ID:	LFB-25691	Units : µg/L Result	PQL	Run ID: I	C_3_101222	A	: LCL(ME)	Prep Date:		
Perchlorate		24.8		2 25		99	85	115	10.10.1.70.1.1.2(2)	
Sample Mar	trix Spike		Type I		Test Code: E Batch ID: 256		thod 314.0	Analysis Da	ate: 12/22/2010 14:20	
Sample ID: Analyte	10122220-04ALFM	Units : µg/L Result	PQL		C_3_101222 I SpkRefVal		C LCL(ME)	Prep Date: UCL(ME) RPDF	12/22/2010 11:5 8 RefVal %RPD(Limit)	3 Qual
Perchlorate		24.6		2 2	5 0	98	80	120		
Sample Mar	trix Spike Duplicate		Type I		Test Code: E		thod 314.0	Analysis Da	ate: 12/22/2010 14:4	 5
Sample ID:	10122220-04ALFMD	Units : µg/L		Run ID: I	C_3_101222	A		Prep Date:	12/22/2010 11:5	8
Analyte		Result	PQL				LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Perchlorate		24.1		2 2			80		4.56 2.1(15)	

Comments:



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

Date: _28-Dec-10	QC Summary Report						Work Order: 10121720		
Method Blank File ID: 122110.B\025_M.D\		Type Mi		est Code: El		hod SW60	20 / SW6020A Analysis Date	12/21/2010 16:41	
Sample ID: MB-25677	Units : mg/L			P/MS_1012			Prep Date:	12/21/2010 10:11	
•	_					LOLIME	•		Ougl
Analyte	Result	PQL	Spkvai	SpkRerval	%REC	LCL(IVIE)	UCL(ME) RPDRef	vai %RPD(Limit)	Qual
Beryllium (Be)	ND	0.004							
Chromium (Cr)	ND	0.005							
Iron (Fe)	ND	0.3							
Nickel (Ni) Copper (Cu)	ND ND	0.01 0.01							
Zinc (Zn)	ND	0.01							
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 (TI)	ND	0.002							
Lead (Pb)	ND	0.005							
Laboratory Control Spike		Type LC	CS T	est Code: El	PA Met	hod SW60	20 / SW6020A		
File ID: 122110.B\026_M.D\			Ba	atch ID: 256	77		Analysis Date:	12/21/2010 16:47	
Sample ID: LCS-25677	Units: mg/L	İ	Run ID: IC	P/MS_1012	21A		Prep Date:	12/21/2010 10:11	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %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) Arsenic (As)	0.256 0.257	0.1 0.005	0.25 0.25		102 103	80 80	120 120		
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 (TI)	0.221	0.002	0.25		88	80	120		
Lead (Pb)	0.254	0.005	0.25		101	80	120		
Sample Matrix Spike		Type M	s T	est Code: El	PA Met	hod SW60	20 / SW6020A		
File ID: 122110.B\031_M.D\			В	atch ID: 256	77		Analysis Date:	12/21/2010 17:15	
Sample ID: 10121845-01AMS	Units : mg/L		Run ID: IC	P/MS_1012	21A		Prep Date:	12/21/2010 10:11	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %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 75	125		
Arsenic (As)	0.277	0.005	0.25	0	111	75 75	125		
Selenium (Se) Silver (Ag)	0.269 0.255	0.005	0.25	0	108	75 75	125 125		
Cadmium (Cd)	0.255	0.005 0.005	0.25 0.25	0	102 112	75 75	125 125		
Antimony (Sb)	0.284	0.005	0.25	0	114	75 75	125		
Mercury (Hg)	0.00488	0.003	0.005	0	98	75 75	125		
Thallium (TI)	0.244	0.002	0.25	ő	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									
Sample Matrix Spike Duplicate File ID: 122110.B\032_M.D\		Type M:	-	est Code: El atch ID: 256		hod SW6			2/21/2010 17:21	_
Sample ID: 10121845-01AMSD	Units: mg/L	F	Run ID: IC	P/MS_1012	21A		Prep	Date: 1	2/21/2010 10:11	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVa	l %RPD(Limit)	Qual
Beryllium (Be) Chromium (Cr) Iron (Fe) Nickel (Ni) Copper (Cu) Zinc (Zn) Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Antimony (Sb) Mercury (Hg)	0.279 0.249 52.1 0.265 0.261 0.267 0.264 0.255 0.239 0.268 0.269	0.004 0.005 0.3 0.01 0.01 0.05 0.005 0.005 0.005 0.005	0.25 0.25 50 0.25 0.25 0.25 0.25 0.25 0.	0 0.6736 0.01621 0.01579 0 0 0 0	99.6 103 99 98 107 106 102 95 107 108 94	75 75 75 75 75 75 75 75 75 75	125 125 125 125 125 125 125 125 125 125	0.2872 0.2574 53.75 0.2759 0.2747 0.2809 0.2767 0.2693 0.255 0.2798 0.2838 0.00487	3.0(20) 3.3(20) 3.2(20) 4.1(20) 5.3(20) 5.2(20) 4.7(20) 5.3(20) 6.6(20) 4.4(20) 5.2(20) 7 3.7(20)	
Thallium (TI) Lead (Pb)	0.239 0.259	0.001 0.002 0.005	0.005 0.25 0.25	_	95 103	75 75 75	125 125 125	0.2437 0.2716	2.1(20) 4.9(20)	

Comments:



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Date:	(QC S	ummar	y Repor	t			Work Orde 10121720	
Method Blank		Type N	BLK T	est Code: El	PA Met	thod SW90	060 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Da	ite: 12/29/2010 10:47	
Sample ID: MBLK-25715	Units: mg/L		Run ID: To	OC_101229/	4		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Total Organic Carbon	ND	1							
Laboratory Control Spike		Type L	.cs T	est Code: El	PA Me	thod SW90	060 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Da	ite: 12/29/2010 11:14	
Sample ID: LCS-25715	Units: mg/L		Run ID: To	OC_101229/	Ą		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Total Organic Carbon	5.16	1	5		103	74	126		
Sample Matrix Spike		Type N	ns T	est Code: E	PA Me	thod SW90	060 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Da	te: 12/29/2010 14:26	
Sample ID: 10121720-04AMS	Units : mg/L		Run ID: To	OC_101229/	4		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Total Organic Carbon	9.84	4	5	6.874	59	56	137		
Sample Matrix Spike Duplicate		Type N	ASD T	est Code: E	PA Me	thod SW90	060 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Da	ite: 12/29/2010 14:55	
Sample ID: 10121720-04AMSD	Units: mg/L		Run ID: To	OC_101229/	4		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qual
Total Organic Carbon	10.4	4	5	6.874	70	56	137 9.	.841 5.4(20)	

Comments:

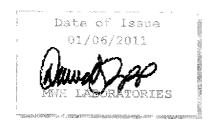


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

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#: 351539

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 #: 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.

Sample # Sample ID Sample Date 201012180077 NGEM-As-Mob-T0 Dec 16, 2010 11:00 Variable ID: PES10121720-01A Chlorate by IC 201012180078 NGEM-As-Mob-Con-A Dec 16, 2010 11:00 Variable ID: PES10121720-02A Chlorate by IC 201012180079 NGEM-As-Mob-EOS-hi-A Dec 16, 2010 11:00 Variable ID: PES10121720-03A Chlorate by IC 201012180080 NGEM-As-Mob-EOS-lo-A Dec 16, 2010 11:00 Variable ID: PES10121720-04A Chlorate by IC

Test Description



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: 351539

Samples Received on: 12/17/2010

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
12/27/2010	201012180077 22:18 Chlorate by IC	NGEM-As-Mob-T0	26000		ug/L	5000
12/27/2010	201012180078 22:43 Chlorate by IC	NGEM-As-Mob-Con-A	26000		ug/L	5000
12/29/2010	201012180080 23:15 Chlorate by IC	NGEM-As-Mob-EOS-lo-A	22000		ug/L	2000

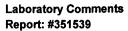


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc. Reyna Vallejo 255 Glendale Avenue, Suite 21 Sparks, NV 89431 Laboratory Data Report: 351539

Samples Received on: 12/17/2010

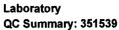
			_					
Prepared	Analyz	ed	QC Ref#	Method	Analyte	Result	Units	MRL Dilution
NGEM-A	s-Mob-T0 (2	201012	<u>180077)</u>				Sampled on	12/16/2010 1100
	Varia	ble ID	: PES101	.21720-01A				
		EPA 3	00.0 - Di	sinfection ByP	roducts by 300.0			
	12/27/2010			(EPA 300.0)	Chlorate by IC	26000	ug/L	5000 500
NGEM-A	s-Mob-Con	-A (201	0121800	78)			Sampled on	12/16/2010 1100
	Varia	ble ID	: PES101	21720-02A				
		EPA 3	00.0 - Di	sinfection ByP	roducts by 300.0			
	12/27/2010	22:43	581331	(EPA 300.0)	Chlorate by IC	26000	ug/L	5000 500
NGEM-A	s-Mob-EOS	<u>-hi-A (2</u>	2010121	<u>80079)</u>			Sampled on	12/16/2010 1100
	Varia	ble ID	: PES101	.21720-03A				
		EPA 3	00.0 - Di	sinfection ByP	roducts by 300.0			
	12/22/2010	02:36	580855	(EPA 300.0)	Chlorate by IC	ND	ug/L	10 1
NGEM-A	s-Mob-EOS	-lo-A (2	<u> 2010121</u> 2	<u>80080)</u>			Sampled on	12/16/2010 1100
	Varia	ble ID	: PES101	21720-04A				
		EPA 3	00.0 - Di	sinfection ByP	roducts by 300.0			
	12/29/2010	23:15	581960	(EPA 300.0)	Chlorate by IC	22000	ug/L	2000 100





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





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.

QC Ref # 580855 - Disinfection ByProducts by 300.0

201012180079

NGEM-As-Mob-EOS-hi-A

QC Ref # 581331 - Disinfection ByProducts by 300.0

201012180077

NGEM-As-Mob-T0

201012180078

NGEM-As-Mob-Con-A

QC Ref # 581960 - Disinfection ByProducts by 300.0

201012180080

NGEM-As-Mob-EOS-Io-A

Analysis Date: 12/22/2010

Analyzed by: TLH

Analysis Date: 12/27/2010

Analyzed by: LUPE

Analyzed by: LUPE

Analysis Date: 12/29/2010

Analyzed by: TLH



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 Report: 351539

Alpha Analytical, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 580855 - Dis	infection ByProducts by	300.0 by EPA 300.0			Α	nalysis Da	ate: 12/21/26)10	
LCS1	Chlorate by IC		200	204	ug/L	102	(90-110)		
LCS2	Chlorate by IC		200	208	ug/L	104	(90-110)	20	1.9
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	11.2	ug/L	112	(75-125)		
MS_201012170393	Chlorate by IC	ND	100	101	ug/L	101	(80-120)		
MS_201012220105	Chlorate by IC	ND	100	524	ug/L	100	(80-120)		
MSD_201012170393	Chlorate by IC	ND	100	101	ug/L	101	(80-120)	15	0.0
MSD_201012220105	Chlorate by IC	ND	100	522	ug/L	100	(80-120)	15	0.20
QC Ref# 581331 - Dis	infection ByProducts by	300.0 by EPA 300.0			Analysis Date: 12/27/2010				
LCS1	Chlorate by IC		200	199	ug/L	99	(90-110)		
LCS2	Chlorate by IC		200	198	ug/L	99	(90-110)	20	0.50
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	9.32	ug/L	93	(75-125)		
MS_201012150224	Chlorate by IC	80	100	174	ug/L	95	(80-120)		
MS_201012160200	Chlorate by IC	ND	100	90.0	ug/L	90	(80-120)		
MSD_201012150224	Chlorate by IC	80	100	175	ug/L	95	(80-120)	15	0.53
MSD_201012160200	Chlorate by IC	ND	100	88.9	ug/L	89	(80-120)	15	1.2
QC Ref# 581960 - Dis	infection ByProducts by	300.0 by EPA 300.0			A	nalysis Da	ate: 12/29/20	010	
LCS1	Chlorate by IC		200	211	ug/L	105	(90-110)		
LCS2	Chlorate by IC		200	210	ug/L	105	(90-110)	20	0.48
MBLK	Chlorate by IC			<10	ug/L				
MRLHI	Chlorate by IC		20	19.7	ug/L	98	(50-150)		
MS_201012230028	Chlorate by IC	100	100	204	ug/L	103	(80-120)		
MS_201012290155	Chlorate by IC		100	88.3	ug/L	88	(80-120)		
MSD_201012230028	Chlorate by IC	100	100	201	ug/L	100	(80-120)	15	3.0
MSD_201012290155	Chlorate by IC		100	88.4	ug/L	88	(80-120)	15	0.11

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 ia for MS and Dup are advisory only, pation control in the method, 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

Billing Information:

Client:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

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

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

5070 Robert J. Mathews Parkway Suite 300

El Dorado Hills, CA 95762

Prima Environmental

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

11:00

EDD Required: No

1°C

Sampled by: Beth Brewer

WorkOrder: PES10121720

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

Cooler Temp Samples Received 17-Dec-10

Date Printed 20-Dec-10

Page: 1 of 1

QC Level: S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates **Requested Tests** Alpha Client Collection No. of Bottles 300_0(D) 300 0 W 314 W METALS A: TOC W Sample ID Sample ID Matrix Date Alpha Sub TAT Sample Remarks Chlorate, Cl, Chlorate, Cl, Perchlorate Special List TOC PES10121720-01A NGEM-As-Mob-T0 AQ 12/16/10 10 NO3 11:00 PES10121720-02A NGEM-As-Mob-Con-A AQ 12/16/10 6 10 Chlorate, Cl, Chlorate, Cl, Perchlorate Special List TOC 1 NO₃ 11:00 PES10121720-03A NGEM-As-Mob-EOS-hi-A AQ Chlorate, Cl, Chlorate, Cl, Perchlorate Special List TOC 12/16/10 10 NO3 11:00 TOC PES10121720-04A NGEM-As-Mob-EOS-lo-A AQ 12/16/10 Chlorate, Cl, Chlorate, Cl, Perchlorate Special List 10

NO3

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
Logged in by:	Kllunay	KMunay	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

Billina Information			Alpha Ar						NV <u>V</u>	WA	? DOD Site	
Add El Dorado Hills, CA	hews Parkway, Suite 300 \ 95762		255 Glendale Sparks, Neva Phone (775) Fax (775) 38	ada 89431-9 355-1044			OR		OTHER _		Page # of	_
City PH: 916-939-7300 Pho data@primenviron	FAX: 916 939 7398 mental.com					/	,	-	s Require	ed	Data Walled Alam	
Consultant / Client Name		Job#	Job	Name	As-Mob		1		43/ 12/	7/	Data Validation Level: III or IV	
Address		Repo	ort Attention / Project I		15 111010	$-\int \int_{0}^{\infty}$	id /	3/ =	श्रे हैं।	//		
City, State, Zip		Name:	chreier			320 (4)	/ /	3i4-Ren	30-cm at	/ / _{ED}	DD/EDF? YES NO	_
Time Date Matrix* P.C	O. #	Phone:	Mobile:			[/ 🖏	920	ह्ये मं)-i	Glo.		
Sampled Sampled See Key Below	Lab ID Number (Use Only)	Sample Descr	iption	TAT _F	Field iltered # Containers**	<u> </u>	8 2	13	30		REMARKS	
1100 DIGH AQ P	ES10121720-01	NOEM-AS-MOL	O-TO	SID	* 37,2-P 2-OT	X	x x		Χ	mes	tals=Sb, As	_
	02		-con-A		1 1				X	Be,	Cd, Cr, Cu,	_
	03		-Eos-hi-A				<u> </u>	1	\times	Fe.	Pb, Hq.N	1
	<u> </u>		- EUS-lo-A	V	ψ 	X	× ×	X	\times	Se	Ag.TI, 2r	<u>1</u>
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										Ch	brate to	
										mi	# HW	
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		L	1.			<u> </u>						_
ADDITIONAL INS	TRUCTIONS: Sam	iples are ~	30 mg/L 1	erchle	rate, 1	righ	Îm_	Salt	ts			_
I, (field sampler), attest t grounds for legal action	to the validity and authenticity (NAC 445.0636 (c) (2)). Samp	of this sample. Lam aware tholed By: Della Document	nat tampering with or	intentionally	/ mislabeling the ,	sample lo	cation, da	te or time	of collection	n is conside	red fraud and may be	,
Reliperiished buk (Signature/A			Received by: (Signature/A		a ch Sel		_		Date: 2	16.10	Time: 4:00	_
Relinquished by: (Signature/A	Attiliarfon)	2-16-16 F	Received by: (Signature/A	ffiliation)	way				Date:	20/10	Time: 0800	
Relinquished by: (Signature/A			Received by: (Signature/A		may				Date:	0110	Time:	
*Kev: AQ - Aqueous	SO - Soil WA - Wast	re OT - Other AF		er \/-\/r	pa S-Soil Jar	O-Or	ho T	-Tedlar	B-Brass	B P-Plas	stic OT-Other	

32096

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



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

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-Cor	n-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	s-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	s-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

Kandy Sandner

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.

Report Date



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-Co Lab ID: PES10122120-01A Date Sampled 12/20/10 11:00	n-B Perchlorate	22,000	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-Eo Lab ID: PES10122120-02A Date Sampled 12/20/10 11:00	s-Lo-B Perchlorate	5,560	2,000 µg/L	12/22/10	12/22/10
Client ID: NGEM-As-Mob-Eos Lab ID: PES10122120-03A Date Sampled 12/20/10 11:00	s- Hi-B Perchlorate	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 Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 info@alpha-analytical.com

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1/5/11

Report Date



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ANALYTICAL REPORT

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

Fax:

Attn:

Cindy Schreier Phone: (916) 939-7300

(916) 393-7398 Date Received: 12/21/10

Job: NGEM-As-Mob

Metals by ICPMS EPA Method SW6020 / SW6020A

	Parameter	Concentration	Reporting	Date	Date
			Limit	Extracted	Analyzed
Client ID: NGEM-As-Mob-Co	n-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-Eo	s-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

NGEM-As-Mob



Lead (Pb)

Alpha Analytical, Inc.

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Client ID: NGEM-As-Mob-Eo	s-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

ND

0.0050 mg/L

ND = Not Detected

Roger Scholl

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

12/21/10

12/21/10



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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-Co Lab ID: PES10122120-01A Date Sampled 12/20/10 11:00		3.7	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Eo Lab ID: PES10122120-02A Date Sampled 12/20/10 11:00		14	1.0 mg/L	12/29/10	12/29/10
Client ID: NGEM-As-Mob-Eo Lab ID: PES10122120-03A Date Sampled 12/20/10 11:00	s-Hi-B Total Organic Carbon	110	10 mg/L	12/29/10	12/29/10

Roger Scholl Kandy Sudmer Wa

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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Report Date

NGEM-As-Mob



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 S	ummar	y Repor	t				Work Orde 10122120	
Method Blan File ID: 20 Sample ID: Analyte	nk MB-25681	Units : mg/L Result	Type N	Ba Run ID: IC	est Code: E l atch ID: 256 _ 1_101221 SpkRefVal	81 A		Prep I	Date:	12/21/2010 11:56 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N_	ND ND	0.5 0.25								
Laboratory I File ID: 21 Sample ID: Analyte	Fortified Blank LFB-25681	Units : mg/L Result	Type L	Bar Run ID: IC	est Code: El atch ID: 256 _ 1_101221 SpkRefVal	81 A		Prep l	Date:	12/21/2010 12:15 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	49.6 5.16	0.5 0.25	50		99 103	90 90	110 110			
Sample Matri File ID: 80 Sample ID: Analyte	rix Spike 10122145-13ALFM	Units : mg/L Result	Type L	Bar Run ID: IC	est Code: E atch ID: 256 :_1_101221/ SpkRefVal	81 A		Prep l	Date:	12/22/2010 06:28 12/21/2010 11:56 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N .	59.4 6.4	0.5 0.25	5 50	13.31 1.641	92	80 80	120 120	_	· · · · · · · · · · · · · · · · · · ·	
File ID: 81 Sample ID:	rix Spike Duplicate	Units : mg/L		Bi Run ID: IC	est Code: E atch ID: 256 :_1_101221	81 A		Analy Prep	Date:	12/22/2010 06:46 12/21/2010 11:56	O !
Analyte Chloride Nitrate (NO3) -	N	60.4 6.53	PQL 0.5 0.25	5 50	13.31 1.641	94 98	80 80	120 120	59.42 6.403	(- /	Qual

Comments



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							der: 20
Method Bla	nk		Type N	MBLK T	est Code: EF	A Met	thod 314.0			
File ID: 14				Ва	atch ID: 256 9	91		Analysis Dat	te: 12/22/2010 12:5	4
Sample ID:	MB-25691	Units : µg/L		Run ID: IC	_3_1012224	١.		Prep Date:	12/22/2010 11:5	8
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDR	tefVal %RPD(Limit)	Qual
Perchlorate		ND	2	2						
Laboratory	Fortified Blank		Type L	FB T	est Code: EF	A Met	thod 314.0			
File ID: 15				В	atch ID: 256 9	91		Analysis Dat	te: 12/22/2010 13:1	3
Sample ID:	LFB-25691	Units : µg/L.		Run ID: IC	_3_101222A	١		Prep Date:	12/22/2010 11:5	8
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDR	RefVal %RPD(Limit)	Qual
Perchlorate		24.8	2	2 25		99	85	115		
Sample Mat	trix Spike		Type L	FM T	est Code: EF	PA Met	thod 314.0			
File ID: 19				В	atch ID: 256 9	91		Analysis Dat	te: 12/22/2010 14:2	6
Sample ID:	10122220-04ALFM	Units : µg/L		Run ID: IC	_3_101222 <i>A</i>	١.		Prep Date:	12/22/2010 11:5	8
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDR	RefVal %RPD(Limit)	Qual
Perchlorate		24.6	:	2 25	0	98	80	120		
Sample Mat	trix Spike Duplicate		Type I	FMD T	est Code: Ef	PA Met	thod 314.0			
File ID: 20	-			В	atch ID: 256 9	91		Analysis Dat	te: 12/22/2010 14:4	5
Sample ID:	10122220-04ALFMD	Units : µg/L		Run ID: IC	_3_101222#	١		Prep Date:	12/22/2010 11:5	8
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDR	RefVal %RPD(Limit)	Qual
Perchlorate		24.1		2 25	0	96	80	120 24	4.56 2.1(15)	

Comments:



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Date: 03-Jan-11		QC Summary Report						Work Orde 10122120		
Method Blan File ID: 122110			Type M		est Code: EP atch ID: 2567		hod SW602	20 / SW6020A Analysis Date:	12/21/2010 16:41	
Sample ID:	MB-25677	Units : mg/L		Run ID: IC	P/MS_10122	21A		Prep Date:	12/21/2010 10:11	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME) l	JCL(ME) RPDRef	Val %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) Arsenic (As)		ND ND	0.1 0.005							
Selenium (Se)		ND ND	0.005							
Silver (Ag)		ND	0.005							
Cadmium (Cd)		ND	0.005							
Antimony (Sb)		ND	0.005							
Mercury (Hg)		ND	0.001							
Thallium (TI)		ND	0.002							
Lead (Pb)		ND	0.005	<u> </u>			_			
Laboratory (Control Spike		Type L	CS T	est Code: EF	A Met	hod SW602	20 / SW6020A		
File ID: 122110	.B\026_M.D\			В	atch ID: 2567	77		Analysis Date:	12/21/2010 16:47	
Sample ID:	LCS-25677	Units : mg/L			P/MS_10122			Prep Date:	12/21/2010 10:11	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	JCL(ME) RPDRef	Val %RPD(Limit)	Qual
Beryllium (Be)		0.255	0.004			102	80	120		
Chromium (Cr)		0.244	0.005			98	80	120		
Iron (Fe)		51.4	0.3			103	80	120		
Nickel (Ni) Copper (Cu)		0.256 0.257	0.01 0.01			102 103	80 80	120 120		
Zinc (Zn)		0.256	0.01			103	80	120		
Arsenic (As)		0.257	0.005			103	80	120		
Selenium (Se)		0.256	0.005			103	80	120		
Silver (Ag)		0.235	0.005			94	80	120		
Cadmium (Cd)		0.259	0.005			104	80	120		
Antimony (Sb)		0.261	0.005			105	80	120		
Mercury (Hg)		0.00443	0.001			89	80	120		
Thallium (TI) Lead (Pb)		0.221 0.254	0.002			88 101	80 80	120 120		
Sample Matr	=		Type N				hod SW602	20 / SW6020A		
File ID: 122110					atch ID: 256 7			•	12/21/2010 17:15	
Sample ID:	10121845-01AMS	Units : mg/L			P/MS_10122			Prep Date:	12/21/2010 10:11	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	JCL(ME) RPDRef	Val %RPD(Limit)	Qual
Beryllium (Be)		0.287	0.004		0	115	75	125		
Chromium (Cr)		0.257	0.005			103	75	125		
Iron (Fe)		53.8	0.3			106	75	125		
Nickel (Ni) Copper (Cu)		0.276 0.275	0.01		0.01621	104	75 75	125 125		
Zinc (Zn)		0.275 0.281	0.01 0.1		0.01579 0	104 112	75 75	125		
Arsenic (As)		0.277	0.005		0	111	75 75	125		
Selenium (Se)		0.269	0.005		Ő	108	75	125		
Silver (Ag)		0.255	0.005		0	102	75	125		
Cadmium (Cd)		0.28	0.005		0	112	75	125		
Antimony (Sb)		0.284	0.005	0.25	0	114	75	125		
Mercury (Hg)		0.00488	0.001		0	98	75	125		
Thallium (TI)		0.244	0.002		0	97	75 75	125		
Lead (Pb)		0.272	0.005	0.25	0	109	75	125		



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 Orde 10122120		
Sample Matrix Spike Duplicate File ID: 122110.B\032_M.D\		Type MS	_	est Code: El		hod SW60			2/21/2010 17:21	—
Sample ID: 10121845-01AMSD	Units : mg/L	F	Run ID: IC	P/MS_1012	21A		Prep l	Date: 1	2/21/2010 10:11	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVa	%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 (TI)	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



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Date: 03-Jan-11		(QC S	umr	nary	Repor	t				Work Orde 10122120	
Method Blan	nk		Туре	MBLK		st Code: El		hod SW90			12/29/2010 10:47	
Sample ID:	MBLK-25715	Units : mg/L		Run	D: TO	C_101229A	١		Prep	Date:	12/29/2010 08:26	
Analyte		Result	PQL	Sp	kVal :	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Total Organic	Carbon	ND		1								
Laboratory	Control Spike		Type I	LCS	Te	st Code: El	PA Met	hod SW90	60 / SM53	310C		
File ID:	·				Bat	tch ID: 257	15		Analy	sis Date:	12/29/2010 11:14	
Sample ID:	LCS-25715	Units: mg/L		Run	ID: TO	C_101229 <i>F</i>	4		Prep	Date:	12/29/2010 08:26	
Analyte		Result	PQL	Sp	kVal :	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Total Organic	Carbon	5.16		1	5		103	74	126		-	
Sample Mat	rix Spike		Туре	MS	Te	st Code: El	PA Met	hod SW90	60 / SM53	310C		
File ID:					Ba	tch ID: 257	15		Analy	sis Date:	12/29/2010 14:26	
Sample ID:	10121720-04AMS	Units: mg/L		Run	ID: TO	C_101229A	4		Prep	Date:	12/29/2010 08:26	
Analyte		Result	PQL	Sp	kVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Total Organic	Carbon	9.84		4	5	6.874	59	56	137			
Sample Mat	rix Spike Duplicate		Туре	MSD	Te	st Code: El	PA Met	hod SW90	60 / SM53	310C		
File ID:	•				Ba	tch ID: 257	15		Analy	sis Date:	12/29/2010 14:55	
Sample ID:	10121720-04AMSD	Units: mg/L		Run	ID: TO	C_101229A	4		Prep	Date:	12/29/2010 08:26	
Analyte		Result	PQL	Sp	kVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Total Organic	Carbon	10.4		4	5	6.874	70	56	137	9.84	1 5.4(20)	_

Comments



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#: 351711

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#: 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

Dec 20, 2010 11:00

201012210243

NGEM-As-Mob-Con-B

Variable ID: PES10122120-01A

Dec 20, 2010 11:00

Chlorate by IC

201012210244

NGEM-As-Mob-Eos-Lo-B

Variable ID: PES10122120-02A

Dec 20, 2010 11:00

Chlorate by IC

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

Variable ID: PES10122120-03A

Chlorate by IC

Test Description



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: 351711

Samples Received on: 12/21/2010

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

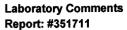


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc. Reyna Vallejo 255 Glendale Avenue, Suite 21 Sparks, NV 89431 Laboratory Data Report: 351711

Samples Received on: 12/21/2010

Prepared	Analyz	ed	QC Ref#	Method	Analyte	Result	Units	MRL	Dilution
NGEM-As	-Mob-Con	-B (20	10122102	243)	-		Sampled on	12/20/2010 11	100
	Varia	ble II	D: PES101	L22120-01A					
		EPA:	300.0 - Di	isinfection ByP	roducts 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	<u>(2010122</u>	<u>10244)</u>			Sampled on	12/20/2010 11	100
	Varia	ble II	D: PES101	L22120-02A					
		EPA:	300.0 - Di	isinfection ByP	roducts by 300.0				
	12/29/2010	23:40	581960	(EPA 300.0)	Chlorate by IC	1100	ug/L	200	10
NGEM-As	-Mob-Eos	<u>-Hi-B (</u>	2010122	<u>10245)</u>			Sampled on	12/20/2010 11	100
	Varia	ble II	D: PES101	122120-03A					
		EPA:	300.0 - Di	isinfection ByPı	roducts by 300.0				
	01/05/2011	21:34	582467	(EPA 300.0)	Chlorate by IC	ND (MC)	ug/L	100	10



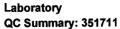


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

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

Flags Legend:

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





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.

QC Ref # 581331 - Disinfection ByProducts by 300.0

201012210243

NGEM-As-Mob-Con-B

QC Ref # 581960 - Disinfection ByProducts by 300.0

201012210244

NGEM-As-Mob-Eos-Lo-B

QC Ref # 582467 - Disinfection ByProducts by 300.0

201012210245

NGEM-As-Mob-Eos-Hi-B

Analysis Date: 12/28/2010

Analyzed by: LUPE

Analysis Date: 12/29/2010

Analyzed by: TLH

Analysis Date: 01/05/2011

Analyzed by: TLH



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 Report: 351711

Alpha Analytical, Inc.

QC Туре	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 581331 - Dis	infection ByProducts by	300.0 by EPA 300.0			A	nalysis Da	ate: 12/27/20)10	
LCS1	Chlorate by IC		200	199	ug/L	99	(90-110)		
LCS2	Chlorate by IC		200	198	ug/L	99	(90-110)	20	0.50
MBLK	Chlorate by IC			<10	ug/L				
MRL_CHK	Chlorate by IC		10	9.32	ug/L	93	(75-125)		
MS_201012150224	Chlorate by IC	80	100	174	ug/L	95	(80-120)		
MS_201012160200	Chlorate by IC	ND	100	90.0	ug/L	90	(80-120)		
MSD_201012150224	Chlorate by IC	80	100	175	ug/L	95	(80-120)	15	0.53
MSD_201012160200	Chlorate by IC	ND	100	88.9	ug/L	89	(80-120)	15	1.2
QC Ref# 581960 - Dis	infection ByProducts by	300.0 by EPA 300.0			A	nalysis Da	ate: 12/29/20	10	
LCS1	Chlorate by IC		200	211	ug/L	105	(90-110)		
LCS2	Chlorate by IC		200	210	ug/L	105	(90-110)	20	0.48
MBLK	Chlorate by IC			<10	ug/L		,		
MRLHI	Chlorate by IC		20	19.7	ug/L	98	(50-150)		
MS_201012230028	Chiorate by IC	100	100	204	ug/L	103	(80-120)		
MS_201012290155	Chlorate by IC		100	88.3	ug/L	88	(80-120)		
MSD_201012230028	Chlorate by IC	100	100	201	ug/L	100	(80-120)	15	3.0
MSD_201012290155	Chlorate by IC		100	88.4	ug/L	88	(80-120)	15	0.11
QC Ref# 582467 - Dis	infection ByProducts by	300.0 by EPA 300.0			A	nalysis Da	ate: 01/05/20)11	
LCS1	Chlorate by IC		200	194	ug/L	97	(90-110)		
LCS2	Chlorate by IC		200	197	ug/L	99	(90-110)	20	1.5
MBLK	Chlorate by IC			<10	ug/L		, ,		
MRL_CHK	Chlorate by IC		10	9.37	ug/L	94	(75-125)		
MS_201012210245	Chlorate by IC	ND	100	1930	ug/L	<u>193</u>	(80-120)		
MS_201012230101	Chlorate by IC	ND	100	96.8	ug/L	97	(80-120)		
MSD_201012210245	Chlorate by IC	ND	100	1940	ug/L	<u>194</u>	(80-120)	15	0.52
MSD_201012230101	Chlorate by IC	ND	100	95.4	ug/L	95	(80-120)	15	1.5

Spikes which exceed Limits and Method Blanks with positive results are highlighted by <u>Underlining.</u> 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.

⁽a) indicates surrogate compound.

(l) 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)

Billing Information:

CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

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

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

Client: Prima Environmental

5070 Robert J. Mathews Parkway

Suite 300

El Dorado Hills, CA 95762

Report Attention Phone Number

(916) 939-7300 x

EMail Address

data@primaenvironmental.com

EDD Required: No

Sampled by: Beth Brewer

WorkOrder: PES10122120

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

Cooler Temp

4°C

Samples Received 21-Dec-10

Date Printed 21-Dec-10

Page: 1 of 1

PO:

Client's COC #: 32698

NGEM-As-Mob

Cindy Schreier

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

					Requested Tests						*			
Alpha	Client	(Collection	No. of	Bottles	3	300_0(D)_ W	300_0_W	314_W	METALS_A	TOC_W		!	
Sample ID	Sample ID	Matrix	Date	Alpha	Sub	TAT						· · · · · · · · · · · · · · · · · · ·		Sample Remarks
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

Logged in by:

1 minay

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:		Alpha Analytical, Inc.						Samples Collected From Which State? AZ CA NV WA DOD Site						****			
City, St	5070 F El Doi PH: 9	Robert . rado Hi 16-939	TIRONMENTAL, Inc. J. Mathews Parkway, Suite 300 Ils, CA 95762 -7300 FAX: 916 939 7398 avironmental.com		CO.	255 Glenda Sparks, Ne Phone (77 Fax (775)	vada 89431 5) 355-104	1-5778				OR		ER		Page #	_ of
Consu	Itant / Clie	ent Name		Job #		J	ob Name	<u>Az</u> .	Mob	-	$\overline{\mathcal{A}}$	\overline{I}	1.,[./	T / /	Data Valida Level: III d	
Addres	ss —				Report Att	tention / Project		<u>/[5</u>	MOD	/-{	án)		# \ #	الم	/ /		
City, S	tate, Zip	_ _		Name: <u>Und</u> Email:	y Schreje					- (É	;) {		Chloral Chloral	/ /	EDE	O / EDF? YES_	
Time	Date Sampled	Soo Koy	P.O. #	Phone:		Mobile:				-/8	6020	34 700	型 (で)	' /	Globa ID#_	al 	
<u> </u>	<u> </u>	Relow	Lab ID Number Office (Use Only)	 	Sample Description	Λ	TAT	Field Filtered	# Containers*						+	REMARK	S A D
1100	1201	OHQ	PES10122120-01	NGEM · F		5.40.B	std		3x V, 2x 2x or	' X	×	x x x X	X		metal	5 = 5h, 1, Lu	Hs, De, Fe Pb,
	1	1	03	<u> </u>	<u> </u>	5.Hi-B	\\ \	4				< 1×			Ha 1	√i¦Se;	Hath
			I A CO														
			time I X to I														
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				 			1						++		ATCO		
ADD	TION	AL IN	ISTRUCTIONS:	<u> </u>				<u> </u>	<u></u>								
6	2am	plus	are ~ 30 mg/	L Perch	Morate L	righ in	salts	<u> </u>									
l, (fiel groun	d sample ds for le	er), atte gal acti	st to the validity and authenticity on (NAC 445.0636 (c) (2)). Samp	of this sample. If	am aware that ta	mpeding with o	or intentiona	ally mis	labeling the	e sample	location	n, date or t	ime of col	lection is	consider	ed fraud and	d may be
Reling	uished by:	Signatu	re/Affiliation)			ed by: (Signature/	(Affiliation)	X.	ades	Beliro			Daty	1.20	110	Time 33	55
Relinqu	ıished by:	(Signatu	re/Affiliation) sa de Shr	12-50-10	Receive	ed by: (Signature/ ed by: (Signature/	Affiliation)	ш	au/A	141			Date 121	e: <u>21</u> 1		Time: 0925	
Relinqu	ished by:	(Signatu	re/Affiliation)	_	Receive	ed by: (Signature/	'Affiliation)		70	-			Date			Time:	
*Key: /	 AQ - Aqı	ueous	SO - Soil WA - Wast	te OT - Oth	L ner AR - Ai	r **; L-L	iter V-	Voa	S-Soil Jai	r 0-0	 Orbo	T-Tedla	ar B-I	Brass	P-Plast	tic OT-	Other

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



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

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-Cor	1-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	i-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 Scholl Kandy Saulur

Walter Hornhour

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.

Report Date

NGEM-As-Mob



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

Pa	arameter	Concen	tration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Con-C Lab ID: PES10122940-01A Perchlo Date Sampled 12/28/10 11:00	orate	24,800		2,000 μg/L	12/30/10	12/30/10
Client ID: NGEM-As-Mob-Eos-Lo-C Lab ID: PES10122940-02A Perchlo Date Sampled 12/28/10 11:00	orate	ND	x	3.00 μg/L	12/30/10	01/10/11
Client ID: NGEM-As-Mob-Eos-Hi-C Lab ID: PES10122940-03A Perchlo Date Sampled 12/28/10 11:00	orate	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

oger I. Scholl Ph D. Laboratory Directors . Randy Gardner Laboratory Man

Walter Strikm

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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Report Date



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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-Co	n-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-Eo	s-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

NGEM-As-Mob



Mercury (Hg)

Thallium (T1)

Lead (Pb)

Alpha Analytical, Inc.

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Client ID: NGEM-As-Mob-Eo	s-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	$0.010~\mathrm{mg/L}$	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	$0.0050~\mathrm{mg/L}$	12/30/10	12/31/10
	Antimony (Sb)	ND	0.0050 mg/L	12/30/10	12/31/10

ND

ND

ND

0.0010 mg/L

 $0.0020 \, \text{mg/L}$

0.0050 mg/L

ND = Not Detected

Roger Scholl

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

12/30/10

12/30/10

12/30/10

12/31/10

12/31/10

12/31/10

NGEM-As-Mob Page 2 of 2



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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 Kandy Sulman

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Report Date

NGEM-As-Mob Page 1 of 1



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Date: 05-Jan-11	(QC Sı	ummar	y Repor	t				Work Orde 10122940	
Method Blank File ID: 20 Sample ID: MB-25722 Analyte	Units : mg/L Result	Type M	Ba Run ID: IC	est Code: El atch ID: 257 _1_101229E	22 3		Prep C	Date:	12/29/2010 12:26 12/29/2010 12:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) - N	ND ND	0.5 0.25		opm to run	70, 120		<u> </u>		<u> </u>	
Laboratory Fortified Blank File ID: 21 Sample ID: LFB-25722 Analyte	Units : mg/L Result	Type L	Ba Run ID: IC	est Code: El atch ID: 257 ; _1_101229E	22 3		Prep D	Date:	12/29/2010 12:45 12/29/2010 12:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) - N	50.2 5.32	0.5 0.25	50	Spriterval	100 106	90 90	110 110	THE DITCH	Zi /ott D(Ellitt)	Quai
Sample Matrix Spike File ID: 33 Sample ID: 10122842-02ALFM Analyte	Units : mg/L Result	Type L	Ba Run ID: IC	est Code: El atch ID: 257 ; _ 1_101229 E SpkRefVal	22 3		Prep E	Date:	12/29/2010 16:27 12/29/2010 12:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) - N	102 10.3	0.5 0.25	50	71.52 5.963	60 87	80 80	120 120		, , ,	M2
Sample Matrix Spike Duplicate File ID: 34 Sample ID: 10122842-02ALFMD Analyte	Units : mg/L Result	Type L	Ba Run ID: IC	est Code: El atch ID: 257 _ 1_101229 SpkRefVal	22 3		Prep [Date:	12/29/2010 16:46 12/29/2010 12:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) - N	104 10.6	0.5 0.25	50	71.52 5.963	66 94	80 80	120 120	101.7 10.33	2.6(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: 11-Jan-11	555	(QC S	ummaı	y Repor	t _		_	Work Order: 10122940		
Method Blan	nk		Type I		est Code: El Batch ID: 257		thod 314.0	Analys	is Date:	12/30/2010 12:46	
Sample ID:	MB-25727	Units : µg/L		Run ID: 10	C_3_101230 <i>/</i>	4		Prep D	ate:	12/30/2010 11:49	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME) F	RPDRefV	/al_%RPD(Limit)	Qual
Perchlorate		ND	:	2							
Laboratory	Fortified Blank		Type I	LFB 1	est Code: El	PA Met	thod 314.0				
File ID: 15				Ε	Batch ID: 257	27		Analys	is Date:	12/30/2010 13:04	
Sample ID:	LFB-25727	Units : µg/L		Run ID: I	C_3_101230 <i>i</i>	4		Prep D	ate:	12/30/2010 11:49	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME) F	RPDRef√	/al %RPD(Limit)	Qual
Perchlorate		24.7	;	2 25	;	99	85	115			
Sample Mat	rix Spike		Type I	LFM 1	est Code: El	PA Met	thod 314.0				
File ID: 20	•			E	Batch ID: 257	27		Analys	is Date:	12/30/2010 14:39	
Sample ID:	10123006-08ALFM	Units : µg/L		Run ID: I	C_3_101230 <i>i</i>	4		Prep D	ate:	12/30/2010 11:49	
Analyte		Result	PQL	SpkVa	SpkRefVal	%REC	LCL(ME)	UCL(ME) F	RPDRef√	/al %RPD(Limit)	Qual
Perchlorate		24.8	:	2 25	5 0	99	80	120			
Sample Mat	rix Spike Duplicate		Type I	LFMD 7	rest Code: E	PA Met	thod 314.0				
File ID: 21	• •			E	Batch ID: 257	27		Analys	is Date:	12/30/2010 14:57	
Sample ID:	10123008-08ALFMD	Units : µg/L		Run ID: I	C_3_101230/	Ą		Prep D	ate:	12/30/2010 11:49	
Analyte		Result	PQL	SpkVa	l SpkRefVal	%REC	LCL(ME)	UCL(ME) F	RPDRef\	/al %RPD(Limit)	Qual
Perchlorate	,	23.9	:	2 25	5 0	95	80	120	24.83	3 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.



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Date: 07-Jan-11			C Su	ımmar	y Report	· •			Work Orde 10122940	
Method Blan File ID: 123010	.B\072_M1.D\		Type Mi	В	atch ID: 2572	4	hod SW602	•	12/31/2010 10:05	
Sample ID: Analyte	MB-25724	Units : mg/L Result	PQL		P/MS_10123 SpkRef\/al		LCL/ME)	Prep Date: UCL(ME) RPDRef\	12/30/2010 08:57	Qual
Beryllium (Be) Chromium (Cr) Iron (Fe) Nickel (Ni) Copper (Cu) Zinc (Zn)		ND ND ND ND ND ND	0.004 0.005 0.3 0.01 0.01 0.1	Sprvai	Opriverval	, or CEO	LOL(ML)	OOL(ME) IN BROWN	Var 701 (Cilling)	<u> </u>
Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Antimony (Sb)		ND ND ND ND ND	0.005 0.005 0.005 0.005 0.005							
Mercury (Hg) Thallium (TI)		ND ND	0.001 0.002							
Lead (Pb)		ND	0.005		+ Ondo ED	A 84 - 41	L . J CMCO			
Laboratory (File ID: 123010	Control Spike .B\072_M2.D\		Type L (est Code: EP atch ID: 2572		noa Swou	20 / SW6020A Analysis Date:	12/31/2010 10:11	
Sample ID:	LCS-25724	Units: mg/L	I	Run ID: IC	P/MS_10123	1 A		Prep Date:	12/30/2010 08:57	
Analyte		Result	PQL		SpkRefVal ⁹			UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Beryllium (Be) Chromium (Cr) Iron (Fe) Nickel (Ni) Copper (Cu) Zinc (Zn) Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Antimony (Sb) Mercury (Hg) Thallium (Tl) Lead (Pb)		0.239 0.244 52 0.256 0.258 0.263 0.256 0.247 0.232 0.245 0.232 0.00404 0.229 0.234	0.004 0.005 0.3 0.01 0.01 0.005 0.005 0.005 0.005 0.005 0.005	0.25 0.25 50 0.25 0.25 0.25 0.25 0.25 0.		96 98 104 102 103 105 102 99 93 98 93 81 92 94	80 80 80 80 80 80 80 80 80 80 80	120 120 120 120 120 120 120 120 120 120		
Sample Matr	ix Spike		Type M	s T	est Code: EP	A Met	hod SW60	20 / SW6020A		
File ID: 123010	_	11-16			atch ID: 2572			•	12/31/2010 10:39	
Sample ID: Analyte	10122804-01AMS	Units : mg/L Result	PQL		P/ MS_10123 SokRefVal ^o		LCL(ME)	Prep Date: UCL(ME) RPDRef	12/30/2010 08:57 Val %RPD(Limit)	Qual
Beryllium (Be) Chromium (Cr) Iron (Fe) Nickel (Ni) Copper (Cu) Zinc (Zn) Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Antimony (Sb) Mercury (Hg) Thallium (Tl) Lead (Pb)		0.249 0.25 63.2 0.298 0.262 0.284 0.259 0.251 0.241 0.247 0.234 0.00402 0.233 0.238	0.004 0.005 0.3 0.01 0.01 0.005 0.005 0.005 0.005 0.005 0.001 0.002 0.005	0.25 0.25 50 0.25 0.25 0.25 0.25 0.25 0.	0 0 12.52	99.5 100 101 101 105 114 104 100 97 99 94 80 93 95	75 75 75 75 75 75 75 75 75 75 75 75 75	125 125 125 125 125 125 125 125 125 125		



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Date: 07-Jan-11	(QC Su	ımmar	y Repor	t			_	Work Ord 1012294	
Sample Matrix Spike Duplicate File ID: 123010.B\078_M.D\		Type M:		est Code: EF		hod SW60			12/31/2010 10:44	
Sample ID: 10122804-01AMSD	Units : mg/L	ı		P/MS_1012			Prep		12/30/2010 08:57	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVa	l %RPD(Limit)	Qual
Beryllium (Be) Chromium (Cr) Iron (Fe) Nickel (Ni) Copper (Cu) Zinc (Zn) Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Antimony (Sb) Mercury (Hg) Thallium (Ti) Lead (Pb)	0.261 0.269 67.7 0.316 0.279 0.3 0.278 0.267 0.339 0.26 0.257 0.00442 0.251 0.252	0.004 0.005 0.3 0.01 0.01 0.005 0.005 0.005 0.005 0.005 0.001 0.002	0.25 0.25 50 0.25 0.25 0.25 0.25 0.25 0.	0 12.52 0.0445 0 0 0 0 0 0	104 107 110 109 112 120 111 107 135 104 103 88 101 101	75 75 75 75 75 75 75 75 75 75 75 75	125 125 125 125 125 125 125 125 125 125	0.2488 0.2503 63.2 0.2976 0.2621 0.2842 0.259 0.2506 0.2414 0.2467 0.2339 0.00402 0.233	7.1(20) 6.8(20) 6.0(20) 6.3(20) 5.5(20) 7.0(20) 6.5(20) 33.5(20) 5.2(20) 9.2(20) 1 9.4(20) 7.6(20)	M1 R58

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.



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Date: 06-Jan-11	(QC St	ımmar	y Repor	t			Work Orde 10122940	
Method Blank File ID:		Туре М		est Code: E atch ID: 257		thod SW90	60 / SM5310C Analysis Date:	12/29/2010 10:47	
Sample ID: MBLK-25715	Units : mg/L		Run ID: T	OC_101229	Ą		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Total Organic Carbon	ND	1							
Laboratory Control Spike		Type Lo	cs T	est Code: E	PA Met	thod SW90	60 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Date:	12/29/2010 11:14	
Sample ID: LCS-25715	Units : mg/L		Run ID: T	OC_101229	Ą		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Total Organic Carbon	5.16	1	5		103	74	126		
Sample Matrix Spike		Type M	s T	est Code: E	PA Met	thod SW90	60 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Date	12/29/2010 14:26	
Sample ID: 10121720-04AMS	Units : mg/L		Run ID: T	OC_101229	Ą		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Total Organic Carbon	9.84	4	5	6.874	59	56	137		_
Sample Matrix Spike Duplicate		Туре М	SD T	est Code: E	PA Met	thod SW90	60 / SM5310C		
File ID:			В	atch ID: 257	15		Analysis Date	12/29/2010 14:55	
Sample ID: 10121720-04AMSD	Units: mg/L		Run ID: T	OC_101229	A		Prep Date:	12/29/2010 08:26	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	C LCL(ME)	UCL(ME) RPDRef	fVal %RPD(Limit)	Qual
Total Organic Carbon	10.4	4	5	6.874	70	56	137 9.84	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.



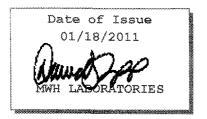
750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

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#: 352342

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 #: 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
20101230011	NGEM-As-Mob-Con-C Variable ID: PES10122940-01A	Dec 26, 2010 11:00
	Chlorate by IC	
<u>20101230012</u> 6	NGEM-Aş-Mob-Eos-Lo-C Variable ID: PES10122940-02A	Dec 28, 2010 11:00
	Chlorate by IC	
<u>20101230012</u>	7 NGEM-As-Mob-Eos-Hi-C Variable ID: PES10122940-03A	Dec 28, 2010 11:00
	Chlorate by IC	

Test Description



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: 352342

Samples Received on: 12/29/2010

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

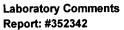


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc. Reyna Vallejo 255 Glendale Avenue, Suite 21 Sparks, NV 89431 Laboratory Data Report: 352342

Samples Received on: 12/29/2010

Prepared	Analyz	ed	QC Ref#	Method	Analyte	Result	Units	MRL [Dilution
NGEM-As	-Mob-Con-	C (201	10123001	19)			Sampled on	12/28/2010 110	0
	Varia	ble II	: PES101	L22940-01A					
		EPA :	300.0 - Di	isinfection ByPi	oducts by 300.0				
	01/12/2011	12:25	583238	(EPA 300.0)	Chlorate by IC	27000	ug/L	1000	100
NGEM-As	-Mob-Eos-	Lo-C	2010123	00126)			Sampled on	12/28/2010 110	0
	Varia	ble II	: PES10:	122940-02A					
		EPA:	300.0 - D	isinfection ByP	roducts by 300.0				
	01/12/2011	13:15	583238	(EPA 300.0)	Chlorate by IC	ND	ug/L	50	5
NGEM-As	-Mob-Eos	Hi-C (<u> 2010123</u>	<u>00127)</u>			Sampled on	12/28/2010 110	0
	Varia	ble II	ES10	122940-03A					
		EPA:	300.0 - D	isinfection ByP	roducts by 300.0				
	01/12/2011	14:05	583238	(EPA 300.0)	Chlorate by IC	ND	ug/L	50	5





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





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.

QC Ref # 583238 - Disinfection ByProducts by 300.0

201012300119 201012300126 201012300127 NGEM-As-Mob-Con-C NGEM-As-Mob-Eos-Lo-C NGEM-As-Mob-Eos-Hi-C Analysis Date: 01/12/2011

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



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 Report: 352342

Alpha Analytical, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 583238 -	Disinfection ByProduct	s by 300.0 by EPA 300.0			A	nalysis Da	ate: 01/11/20	D11	
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_20101218024	8 Chlorate by IC	ND	100	96.1	ug/L	96	(80-120)		
MS_20110104015	7 Chlorate by IC	49	100	141	ug/L	92	(80-120)		
MSD_2010121802	48 Chlorate by IC	ND	100	94.6	ug/L	95	(80-120)	15	1.6
MSD_2011010401	57 Chlorate by IC	49	100	145	ug/L	96	(80-120)	15	4.8

Billing Information:

Suite 300

Prima Environmental

El Dorado Hills, CA 95762

CHAIN-OF-CUSTODY RECORD

1 of 1

Alpha Analytical, Inc.

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

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

Report Attention

Phone Number

EMail Address

Cindy Schreier

(916) 939-7300 x

data@primaenvironmental.com

EDD Required: No

Sampled by: Beth Brewer

WorkOrder: PES10122940

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

PO:

Client:

Client's COC #: 32702

5070 Robert J. Mathews Parkway

NGEM-As-Mob

Cooler Temp 2°C

Samples Received 29-Dec-10

Date Printed 29-Dec-10

- Final Dat MDLK LCC MC/MCD With Surrogator

								Requested Tests						
Alpha	Client		Collection				300_0(D)_ W	300_0_W	314_W	METALS_A	TOC_W			-
Sample ID	Sample ID	Matrix	x Date	Alpha	Sub	TAT			<u> </u>		<u> </u>			Sample Remarks
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	тос			
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	тос			
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	тос			

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.:-

Signature

Print Name

Company

Date/Time

Logged in by:

Alpha Analytical, Inc.

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

Samples Collected From Which State?

Billin	a Infoi	rmatio	n:			Alpha A	nalytica	al, Ind	c.	Sami	ples Co	llected	From	Which	State?	
Attii. į	6070 Ro	bert J. I	ONMENTAL, Inc. Wathews Parkway, Suite 300 CA 95762		Ca Ca	255 Glenda Sparks, Nev Phone (775 Fax (775) 3	ile Avenue, vada 8943 5) 355-104	Suite 2 1-5778	21				OTHE			OD Site
City, I	PH: 916	-939-73		<u> </u>		- Tax (113) C						Analys	es Requ	uired		
Consu	Itant / Clie	ent Name	9	Job #		Je	b Name	Ac	Mob		n /	7 7	<i>a)</i> [1	7	, ,	Validation : III or IV
Addre	ss			1.10	Report Atte	ention / Project	Manager	1 / [-	· MOD	7	[]			/ /	' /	
City, S	tate, Zip			Name: Uhd	14 Schire	er					10/	F/-	-Chlorad		EDD / EDF?	YES NO
Time	Date	Matrix* See Key		Phone:		Mobile: _		_		- (A)	6020	34-Recht			Global ID#	
·	Sampled	Below	Lab ID Number (Use Only)		Sample Description		TAT	Field Filtered		78/	00	() () ()	\&		REM	MARKS
HOC	12:28:10	AR					Std	*	3×1,2×1	X)	\angle	x	<i>X</i>			sb. Hz be
1			-02	-	E05.	force				× s		7 7	X		fd, Cr, L	u,Pb,Fe,
V	V	V			<u> </u>	Hi.C			7	X	<u> </u>		X		Ho NI =	18, Hg, 72,
														<u> </u>	<u> </u>	
															ACI NO.	3, 6020,
															# 1060	<u>are</u>
															field f	ittered
	-													-	_	MWH
		-	<u> </u>							+					#10199	940
ΔDD	⊥ ITION	LIN	L ISTRUCTIONS:				<u></u>		<u> </u>							
	1		1.	11 Q		1 . (
I (fiel	d samul	er) atte	st to the validity and authenticity	of this sample() a	orate for	nperiod with o	r intentiona	Sim ville	labeling the	sample lo	cation da	ate or tim	ne of colle	ction is	considered frau	 ud and may be
			st to the validity and autheriticity on (NAC 445.0636 (c) (2)). Sam	pled By:	prenie			,c								
Re t nq	ud bádeiu S	(Signatur	re/Affiliation)		Received	d by: (Signature/	Affiliation)	~ (Bh	~ ~ ~			Date:	28	·/D Time	1400
			re/Affiliation)	12-29-	10 Redeived	d by: \Signature/	Affiliation)	lis	Agn	\ 1	UP.	he	Date:	129	Time	148
Relinq	uished by:	(Sign atur	re/Affiliation)			d by: (Signature/	Affiliation)			- (-			Date:	, - ·	Time	:
*Key:	AQ - Aqı	ueous	SO - Soil WA - Was	te OT - Oth	er AR - Air	**: L-Li	ter V-	Voa	S-Soil Jar	0-0	rbo	T-Tedlar	B-Br	ass	P-Plastic	OT-Other

Billing Information:

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



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

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-Co	n-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-EO	OS-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-EO	OS-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 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**



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

Perchlorate by Ion Chromatography EPA Method 314.0

	Parameter	Concer	ntration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NGEM-As-Mob-Co Lab ID: PES11012520-01A Date Sampled 01/24/11 11:00		22,600		2,000 μg/L	01/24/11	01/25/11
Client ID: NGEM-As-Mob-EC Lab ID: PES11012520-02A Date Sampled 01/24/11 11:00		ND	x	3.00 µg/L	01/24/11	01/25/11
Client ID: NGEM-As-Mob-EC Lab ID: PES11012520-03A 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 Kundy Saulner Walter Hinchman Quality Assurance Offi

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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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-Co	on-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-EC	OS-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 (TI)	ND	0.0020 mg/L	01/27/11	02/07/11
	Lead (Pb)	ND	0.0050 mg/L	01/27/11	01/27/11



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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 Scholl Kandy San

Walter Finhon

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.

Report Date



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

ANALYTICAL REPORT

Fax:

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

Cindy Schreier Attn:

Phone: (916) 939-7300

(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-Co Lab ID: PES11012520-01A Date Sampled 01/24/11 11:00		3.7	1.0 mg/L	01/25/11	01/26/11
Client ID: NGEM-As-Mob-EO Lab ID: PES11012520-02A Date Sampled 01/24/11 11:00		24	4.0 mg/L	01/25/11	01/26/11
Client ID: NGEM-As-Mob-EO Lab ID: PES11012520-03A 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 Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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Date: 04-Feb-11			QC S	ummar	y Repor	t			_	Work Orde 11012520	
Method Blar File ID: 20 Sample ID: Analyte	nk MB-25870	Units : mg/L Result	Type: N	Ba Run ID: IC	est Code: El atch ID: 258 _ 1_110125 SpkRefVal	70 A		Prep	Date:	01/25/2011 15:58 01/25/2011 15:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	ND ND	0.5 0.25				-				
Laboratory I File ID: 21 Sample ID: Analyte	Fortified Blank LFB-25870	Units : mg/L Result	Type: L	Ba Run ID: IC	est Code: El atch ID: 258 _ 1_110125 / SpkRefVal	70 A		Prep	Date:	01/25/2011 16:16 01/25/2011 15:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	50.7 5.06	0.5 0.25	5 50	Оркі согча	101 101	90 90	110 110			
Sample Matri File ID: 25 Sample ID: Analyte	rix Spike 11012520-01ALFM	Units : mg/L Result	Type: L	Ba Run ID: IC	est Code: El atch ID: 258 _1_110125/	70 \		Prep	Date:	01/25/2011 17:30 01/25/2011 15:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	2500 62.4	2.5 1.3	5 500	2027 10.36	94 104	80 80	120 120		<u> </u>	
Sample Matr File ID: 26 Sample ID: Analyte	rix Spike Duplicate	Units : mg/L Result	Type: L	Ba Run ID: IC	est Code: El atch ID: 258 _ 1_110125 SpkRefVal	70 N		Prep	Date:	01/25/2011 17:49 01/25/2011 15:57 /al %RPD(Limit)	Qual
Chloride Nitrate (NO3) -	N	2500 63.1	2.5 1.3	5 500	2027 10.36	94 105	80 80	120 120	2499 62.38	0.0(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.



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 Sı	ummar	y Repor	t				Work Orde 11012520	
Method Bla	nk	-	Type M		est Code: El atch ID: 258		hod 314.0	Analys	sis Date:	01/24/2011 13:27	
Sample ID:	MB-25859	Units : µg/L		Run ID: IC	_3_110124/	4		Prep [Date:	01/24/2011 10:39	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Perchlorate		ND	2	!							
Laboratory File ID: 21	Fortified Blank		Type L		est Code: El		thod 314.0	Analys	sis Date:	01/24/2011 13:46	
Sample ID:	LFB-25859	Units : µg/L		Run ID: IC	_3_110124/	A		Prep [Date:	01/24/2011 10:39	
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Perchlorate		23.1	2	25		92	85	115			
Sample Mar	trix Spike		Type L		est Code: El		thod 314.0	Analy	eie Data:	01/24/2011 14:23	
Sample ID:	11012472-06ALFM	Units : μg/L		Run ID: IC	3_110124	4		Prep [Date:	01/24/2011 10:39	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	Val %RPD(Limit)	Qual
Perchlorate		3590	200	2500	1187	96_	80	120			
Sample Ma	trix Spike Duplicate		Type L	FMD T	est Code: E	PA Met	thod 314.0				
File ID: 24				В	atch ID: 258	59		Analys	sis Date:	01/24/2011 14:41	
Sample ID:	11012472-06ALFMD	Units : µg/L		Run ID: IC	_3_110124	4		Prep [Date:	01/24/2011 10:39	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	Val %RPD(Limit)	Qual
Perchlorate		3600	200	2500	1187	97	80	120	3595	0.3(15)	

Comments:

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



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

Date: 04-Feb-11				Work Order: 11012520						
Method Blan File ID: 012611		<u>-</u>	Type: M		est Code: El		hod SW60	20 / SW6020A Analysis Date	: 01/27/2011 13:32	
Sample ID:	MB-25883	Units: mg/L			P/MS_1101			Prep Date:	01/27/2011 09:45	
Analyte		Result	PQL		_		LCL(ME)	•	fVal %RPD(Limit)	Qual
Beryllium (Be)		ND	0.004					<u></u>		
Chromium (Cr)		ND	0.005							
Iron (Fe)		ND	0.3							
Nickel (Ni)		ND	0.01							
Copper (Cu)		ND	0.01							
Zinc (Zn) Arsenic (As)		ND ND	0.1							
Selenium (Se)		ND ND	0.005 0.005							
Silver (Ag)		ND	0.005							
Cadmium (Cd)		ND	0.005							
Antimony (Sb)		ND	0.005							
Mercury (Hg)		ND	0.001							
Thallium (TI)		ND	0.002							
Lead (Pb)		ND	0.005				_			_
Laboratory (Control Spike	•	Type: L				hod SW60	20 / SW6020A		
File ID: 012611					atch ID: 258 8			-	: 01/27/2011 13:38	
Sample ID:	LCS-25883	Units : mg/L			P/MS_1101			Prep Date:	01/27/2011 09:45	
Analyte		Result	PQL		SpkRefVal	%REC	LCL(ME)		fVal %RPD(Limit)	Qual
Beryllium (Be)		0.247	0.004	0.25		99	80	120		
Chromium (Cr) Iron (Fe)		0.235	0.005			94	80	120		
Nickel (Ni)		52.5 0.247	0.3			105	80	120		
Copper (Cu)		0.247	0.01 0.01	0.25 0.25		99 99	80 80	120 120		
Zinc (Zn)		0.242	0.01	0.25		97	80	120		
Arsenic (As)		0.248	0.005			99	80	120		
Selenium (Se)		0.241	0.005			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) Thallium (Tl)		0.00483	0.001	0.005		97	80	120		
Lead (Pb)		0.209 0.24	0.002	0.25 0.25		83 96	80 80	120 120		
Sample Matr	riv Spiles		Type: M		ost Codo: El			20 / SW6020A		_
File ID: 012611			ype. IV		est Code. Er atch ID: 258 8		1100 34400		: 01/27/2011 14:06	
	11012520-01AMS	Units : mg/L			P/MS 11012	_		Prep Date:	01/27/2011 09:45	
Analyte		Result	PQL				LCL(ME)	•	fVal %RPD(Limit)	Qual
Beryllium (Be)		0.295	0.004	0.25		118	75	125	<u> </u>	<u> </u>
Chromium (Cr)		0.261	0.005	0.25		102	75	125		
Iron (Fe)		58.4	0.3	50		113	75	125		
Nickel (Ni)		0.273	0.01	0.25		104	75	125		
Copper (Cu)		0.269	0.01	0.25		107	75	125		
Zinc (Zn) Arsenic (As)		0.279	0.1	0.25		112	75 75	125		
Selenium (Se)		0.318	0.005	0.25	0.02434	117	75 75	125		
Silver (Ag)		0.311 0.237	0.005 0.005	0.25 0.25	0.02275 0	115 95	75 75	125 125		
Cadmium (Cd)		0.282	0.005	0.25	0	95 113	75 75	125		
Antimony (Sb)		0.29	0.005	0.25	0	116	75 75	125		
Mercury (Hg)		0.00563	0.001	0.005	Ő	113	75	125		
Thallium (TI)		0.242	0.002	0.25		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: MS			0 / SW6020A						
File ID: 012611.B\056_M.D\			В	atch ID: 258 8	33		Analy		1/27/2011 14:11		
Sample ID: 11012520-01AMSD	Units : mg/L	F	Run ID: IC	P/MS_1101:	27A		Prep	Date: 0	1/27/2011 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 (TI)	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:

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: 27-Jan-11	QC Summary Report											Order: 12520
Method Blank File ID:		Type MBLK Test Code: EPA Method SW9060 / SM5310C Batch ID: 25868 Analysis Date:								01/25/2011 1	6:24	
Sample ID: M	BLK-25868	Units : mg/L		Run ID	TOC	_110125A			Prep	Date:	01/25/2011 1	3:03
Analyte		Result	PQL	Spk\	/al Sp	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	Val %RPD(Lin	nit) Qual
Total Organic Carl	ND		1									
Laboratory Co		Type I	LCS		Code: EF h ID: 2586		hod SW90			01/25/2011 1	6:50	
Sample ID: LO	CS-25868	Units: mg/L		Run ID	TOC	_110125A			Prep	Date:	01/25/2011 1	3:03
Analyte		Result	PQL	Spk\	/al Sp	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	Val %RPD(Lin	nit) Qual
Total Organic Carl	bon	4.81		1	5		96	74	126			
Sample Matrix File ID:	Spike		Туре	MS		Code: EF h ID: 2586		hod SW90			01/25/2011 1	7:47
Sample ID: 11	1012104-01AMS	Units: mg/L		Run ID	TOC	_110125A	1		Prep	Date:	01/25/2011 1	3:03
Analyte		Result	PQL	Spk\	/al S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Lin	nit) Qual
Total Organic Carl	bon	8.35		1	5	3.472	97	56	137			
Sample Matrix Spike Duplicate		Type MSD Test Code: EPA Method SW9060 / SM5310C										
File ID:					Batc	h ID: 2586	8		Analy	sis Date:	01/25/2011 1	8:16
Sample ID: 11	1012104-01AMSD	Units : mg/L		Run ID	: TOC	_110125A	١		Prep	Date:	01/25/2011 1	3:03
Analyte		Result	PQL	Spk\	/al S	pkRefV <u>al</u>	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Lin	nit) Qual
Total Organic Carl	8.2		1	5	3.472	95	56	137	8.34	7 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.



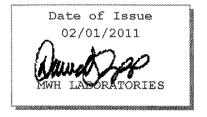
750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

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.



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

Test Description



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: 354230

Samples Received on: 01/25/2011

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

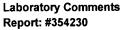


750 Royal Oak Dr., Suite 100 Monrovia, California, 91016-3629 Tel: 626 386 1100 Fax: 626 386 1101 1 800 566 LABS (1 800 566 5227)

Alpha Analytical, Inc. Reyna Vallejo 255 Glendale Avenue, Suite 21 Sparks, NV 89431 Laboratory Data Report: 354230

Samples Received on: 01/25/2011

Prepared	Analyz	ed	QC Ref#	Method	Analyte	Result	Units	MRL Dilution
NGEM-As	-Mob-Con	-D (20	11012502	<u>213)</u>			Sampled on	01/24/2011 1100
	Varia	ble II): PES11	012520-01A				
		EPA:	300.0 - D	isinfection ByP	roducts 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	(201101	<u>250214)</u>			Sampled on	01/24/2011 1100
	Varia	ble II): PES11	012520-02A				
		EPA:	300.0 - D	isinfection ByP	roducts 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	(2011012	<u>250215)</u>			Sampled on	01/24/2011 1100
	Varia	ble II	pesil	012520-03A				
		EPA .	300.0 - D	isinfection ByP	roducts by 300.0			
	01/27/2011	17:44	585077	(EPA 300.0)	Chlorate by IC	ND (D1)	ug/L	50 5





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

Flags Legend:

D1 - Sample required dilution due to matrix.





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.

QC Ref # 585077 - Disinfection ByProducts by 300.0

201101250214

NGEM-As-Mob-EOS-Lo-D

201101250215

NGEM-As-Mob-EOS-HI-D

QC Ref # 585107 - Disinfection ByProducts by 300.0

201101250213

NGEM-As-Mob-Con-D

Analysis Date: 01/27/2011

Analyzed by: LUPE Analyzed by: LUPE

Analysis Date: 01/28/2011

Analyzed by: LUPE



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 Report: 354230

Alpha Analytical, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 585077 - Dis	sinfection ByProducts	by 300.0 by EPA 300.0			_ A	nalysis Da	ate: 01/27/2	011	
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 - Dis	sinfection ByProducts	by 300.0 by EPA 300.0			A	nalysis Da	ate: 01/28/2	011	
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

Billing Information:

Client:

CHAIN-OF-CUSTODY RECORD

Page: 1 of 1

Alpha Analytical, Inc.

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

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

Report Attention Phone Number **EMail Address** Cindy Schreier (916) 939-7300 x

data@primaenvironmental.com

EDD Required: No

Sampled by: BB

WorkOrder: PES11012520

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

PO:

Suite 300

Prima Environmental

El Dorado Hills, CA 95762

Client's COC #: 32706

5070 Robert J. Mathews Parkway

NGEM-As-Mob

Cooler Temp 0°C

Samples Received 25-Jan-11

Date Printed 25-Jan-11

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

	Client Sample ID											
Alpha Sample ID		Collection Matrix Date	No. o		_	300_0(D)_ W	300_0_W	314_W	METALS_A Q	TOC_W		Sample Remarks
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.:

Date/Time Signature **Print Name** Company K-Mumy Alpha Analytical, Inc. Logged in by:

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

										_	_					347	ÛÁ
Billing Information: Cor Attn Addi El Dorado Hills, CA 95762 City, Phol Characterist Phol Cor Adda Care Primer Phol Cor Cor Cor Cor Cor Cor Cor Cor Cor Cor				255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Phone (775) 355-1044									ected	ea From Wrich State?			
														OTHE		Page #	
				Fax (775) 355-0406								Д	analyses Required				
Cons	ultant / Cli	ent Name)	Job #	·	No.	o Name	1	·Mob	/,			\overline{A}	e)/ a	7	Data Validati Level: III or	
Addre	ess			0 <	Report Att	ention / Project		11-	MOD			* / ₍	3/4/8	13 12 E	/ /	' /	
City,	State, Zip			Name: Email:	och rejet					- / <u>/</u>	<u>}</u>	9/5				EDD/EDF? YES	_ NO
Time		Can Kay	P.O. #	Phone:		Mobile: _				- />						Global ID #	
Sample	ed Sampled	Below	Lab ID Number (Use Only)		Sample Description		TAT	Field Filtered	# Containers*	- W		2	W/	mg/		REMARKS	
Apt	12411	AQ	000-3046 A 400 M (000-00-00-00-00-00-00-00-00-00-00-00-00	NGEM AS	· Mob. Co		Std	-	3×1° 2×01		X	X	X	$X \perp$			<u>_</u>
1	1.	 	02			5.40·D	-	**		X	X	X	X	$\frac{X}{Y}$		*metab=Sb	ر کار ج
V	Ψ	1	03		<u> </u>	C.iti.D	 	**	<u> </u>	X	X	X	X	4		De Cd, Cr (u Fe
-	1	 	<u> </u>	<u> </u>			+	:								TD,Hq,NI,S	e, 114
	_									_					-	112,CA	
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		<u> </u>							a						K	CHIURATE T	<u>ర</u>
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ADE	UTION	⊥ IA I IA	 STRUCTIONS:				1									# 110125	<u> 250</u>
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grou	nds for le	egal acti	st to the validity and authenticity on (NAC 445.0636 (c) (2)). Samp	pled By:				y 111131	71 O		locali						
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*Key:	AQ - Aq	ueous	SO - Soil WA - Was	te OT - Othe	er AR - Air	**: L-Lit	ter V-	Voa	S-Soil Jar	· 0-	-Orbo	Ţ-	·Tedlar	B-B	rass	P-Plastic OT-Ot	ther

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,

HAKAN CÜRLEYÜK

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 $\leq 6^{\circ}$ C) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to pH < 2 with concentrated HNO₃ 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.

<u>Arsenic Speciation Analysis by IC-ICP-DRC-MS</u> 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.

<u>Total Recoverable Arsenic Quantitation by ICP-DRC-MS</u> Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO₃ (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% HNO₃ (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,

Hakan Gürleyük, Ph.D.

Senior Scientist

Applied Speciation and Consulting, LLC

HAKAN GÜRLEYÜK

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

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

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

^{*}Please see narrative regarding eMDL calculations

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,

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 $\leq 6^{\circ}$ C) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to pH < 2 with concentrated HNO₃ 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.

<u>Arsenic Speciation Analysis by IC-ICP-DRC-MS</u> 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.

<u>Total Recoverable Arsenic Quantitation by ICP-DRC-MS</u> Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO₃ (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% HNO₃ (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,

Russell Gerads Vice President

Applied Speciation and Consulting, LLC

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

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

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

^{*}Please see narrative regarding eMDL calculations

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

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The second second	AND CONSULTING, LLC

18804 Northcreek Parkway Bothell, WA 98011 Phone (425) 483-3300 Fax (425) 483-9818

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Company Name:							ASC Project	Manager:		
Contact Person: Address:	5070 Robe	NVIRONMENTAL rt J. Mathews Park Hills, CA 95762					By submitting of samples the client agrees to all terms and conforth in the quotation provided by the ASC project manager. familiar with the term and conditions associated with your pro-			manager. If you are not
Phone Number:	PH: 916-93		: 916 939 7398		¥		contact you	ASC representative as so	on as possible	(425) 483-3300.
Fax Number:		environmental.com						urn Around Time: <		
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Project Name: NGEM . AS · MOh								king Number: 7965		
Project Number: PO Number:							Confirmatio	n of Sample Reception:	Yes Yes	□ No
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Please account for each sample bottle as a seperate 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)



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,

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 $\leq 6^{\circ}$ C) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to pH < 2 with concentrated HNO₃ 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.

<u>Arsenic Speciation Analysis by IC-ICP-DRC-MS</u> 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.

<u>Total Recoverable Arsenic Quantitation by ICP-DRC-MS</u> Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO₃ (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% HNO₃ (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

Russell Gerads

Vice President

Applied Speciation and Consulting, LLC

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

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

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

^{*}Please see narrative regarding eMDL calculations

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

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	AND CONSULTING, LLC

18804 Northcreek Parkway Bothell, WA 98011 Phone (425) 483-3300 Fax (425) 483-9818

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Company Name:					1		ASC Project	t Manager:		
Contact Person: Address:	5070 Robe	NVIRONMENTA ert J. Mathews Pa Hills, CA 95762					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 no familiar with the term and conditions associated with your project, please			manager. If you are not
Phone Number:	PH: 916-9		X: 916 939 7398				contact your ASC representative as soon as possible (425) 483-3300.			
Fax Number:		nenvironmental.co					Requested Turn Around Time:			
Email Address:				/			Method of S	Sample Delivery:		
Project Name: N6	EM.H	5. Mab						king Number:		
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Received by: (sign)		(print)				Date/Time:			Temp:	

Please account for each sample bottle as a seperate 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)



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,

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 $\leq 6^{\circ}$ C) until the analyses could be performed. Each sample bottle submitted for total arsenic quantitation was preserved to pH < 2 with concentrated HNO₃ 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.

<u>Arsenic Speciation Analysis by IC-ICP-DRC-MS</u> 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.

<u>Total Recoverable Arsenic Quantitation by ICP-DRC-MS</u> Each aqueous sample submitted for total recoverable arsenic quantitation was preserved with 1% HNO₃ (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% HNO₃ (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

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

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

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

^{*}Please see narrative regarding eMDL calculations

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 1 Rep 2		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

ANDCO	MOUL	ing, LLC						Boulca, WII 70011	1.4x (423) 403-7010		
Company Name:							ASC Projec	t Manager:			
Contact Person: Address: PRIMA ENVIRONMENTAL, Inc. 5070 Robert J. Mathews Parkway, Suite 300 El Dorado Hills, CA 95762							By submitting of samples the client agrees to all terms and conditions forth in the quotation provided by the ASC project manager. If you a familiar with the term and conditions associated with your project, pl				
Phone Number:	PH: 916-	-939-7300 F	AX: 916 939 7398		<u> </u>	·	contact your ASC representative as soon as possible (425) 483-3300.				
Fax Number:	data@pri	imenvironmental.	com	<u> </u>			Requested Turn Around Time:				
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Received by: (sign) James Culling (print) Vancy Cullinga						Date/Time: 1/	25/11	7.00	Temp: 2.8°C		

Please account for each sample bottle as a seperate line item for verification purposes.





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,

Calscience Environmental Laboratories, Inc. Robert Stearns

Project Manager



NELAP ID: 03220CA · DoD-ELAP ID: L10-41 · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830 7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



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	e Number	Date Collected	Matrix				
NGEM-AS-Mob-So	10-12-0586-1		12/07/10	Solid				
Comment(s): (3) The reporting	limit is elevated re	sulting fro	om matrix int	terference				
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



DF - Dilution Factor , Qual - Qualifiers





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



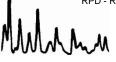
Prima Environmental 5070 Robert J. Mathews Pkwy, Ste. 300 El Dorado Hills, CA 95762-5702 Date Received: Work Order No:

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	





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
3	sample data was reported without further clarification. 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,
В	hence, the associated sample data was reported without further clarification. 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
X	greater. % 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.



Calscience
Environmental
Laboratories, Inc.

7440 LINCOLN WAY

GARDEN GROVE, CA 92841-1432

TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

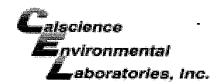
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Address SOZO ROBERT O MATHEWS PRY City EL DORADO HILLS State CA ZIP 70768-5767 2 Your Internal Billing Reference MG [A - M - M - M - M - M - M - M - M - M -	FedEx 2Day Freight Second business day.* Thursday shipments will be defivered on Monday unless SATURDAY Delivery is selected. FedEx 3Day Freight Third business day.* ** Saturday Delivery NOT available. Packaging FedEx Envelope* Declared value limit \$500. FedEx Envelope* FedEx Snall Pak, FedEx Large Pak, and FeeEx Stordy Pak. Special Handling and Delivery Signature Options
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SAMPLE RECEIPT FORM

Cooler <u>\</u> of <u>\</u>

CLIENT: PRIMA ENVIL	DATE: _	12/08/10
TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C − 6.0 °C, not froze temperature	□ Blank	☑ Sample
☐ Received at ambient temperature, placed on ice for transport by Co Ambient Temperature: ☐ Air ☐ Filter		Initial: <u>W</u>
CUSTODY SEALS INTACT: □ Cooler □ □ □ No (Not Intact) ☑ Not Present □ Sample □ □ No (Not Intact) ☑ Not Present	□ N/A	Initial: <u>WB</u> Initial:
SAMPLE CONDITION:	Yes	No N/A
Chain-Of-Custody (COC) document(s) received with samples	🛭	
COC document(s) received complete	/	
\square Collection date/time, matrix, and/or # of containers logged in based on sample labels	i.	
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.		
Sampler's name indicated on COC	. 🗹	
Sample container label(s) consistent with COC	_	
Sample container(s) intact and good condition	ar .	
Proper containers and sufficient volume for analyses requested	/	
Analyses received within holding time		
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	•	
Proper preservation noted on COC or sample container	. 🗆	
☐ Unpreserved vials received for Volatiles analysis		
Volatile analysis container(s) free of headspace	🗆	
Tedlar bag(s) free of condensation CONTAINER TYPE:		
Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCore	es [®] ⊟Terra	Cores® Ø[68 (4]
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Date: 12/23/2010

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,



Date: 12/23/2010

Project Name: **NGEM-AS-MOB**

Project Number:

Sample: NGEM-AS-MOB-T0 Matrix: Water Lab Number: 75778-01

Sample Date :12/16/2010

Method Measured Date/Time Reporting **Analysis** Parameter Value Limit Units Method Analyzed Hexavalent Chromium < 1.0 ug/L **EPA 7199** 12/17/10 08:52 1.0

Sample: NGEM-AS-MOB-GW Matrix: Water Lab Number: 75778-02

Sample Date :12/16/2010

Method Measured Reporting **Analysis** Date/Time Parameter Units Value Limit Method Analyzed Hexavalent Chromium **EPA 7199** 12/17/10 09:12 < 1.0 1.0 ug/L

Sample: NGEM-AS-MOB-CON-A Matrix: Water Lab Number: 75778-03

Sample Date :12/16/2010

Method Measured Date/Time Analysis Reporting Parameter Units Value Liṁit Method Analyzed Hexavalent Chromium 12/17/10 09:18 < 1.0 1.0 ug/L **EPA 7199**

Sample: NGEM-AS-MOB-EOS-HI-A Matrix: Water Lab Number: 75778-04

Sample Date :12/16/2010

Measured Analysis Date/Time Reporting Parameter Units Analyzed Value Limit Method 12/17/10 09:25 Hexavalent Chromium < 1.0 1.0 ug/L **EPA 7199**

Method



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

Method Reporting Limit Measured Analysis Date/Time Parameter Value Units Method Analyzed ug/L Hexavalent Chromium < 1.0 1.0 EPA 7199 12/17/10 09:45

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Method Blank Data

Project Name: NGEM-AS-MOB

Project Number:

Method Reporting Limit U Measured Value Parameter Date Analyzed 12/17/2010 Analysis Method **EPA 7199** Units ng/L Method Reporting Limit U 1.0 Measured Value < 1.0 Hexavalent Chromium Parameter

Date Analyzed

Analysis Method

Units

Report Number: 75778

Date: 12/23/2010

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number: 75778

Date: 12/23/2010

Project Name: NGEM-AS-MOB

Relative Percent Diff.	Limit		10
Spiked Sample e Percent it Recov.	LIMIT		90.0-110 10
Relative t Percent	DЩ.		2.20
Duplicate Spiked Sample F	Recov.		104
~ ~ ~	Recov.		12/17/10 101
Analysis	Method		EPA 7199
-	Onits		ng/L
Duplicate Spiked Sample	Value		5.18
Spiked Sample	Value		90.5
Spike Dup.	Level		2.00
Spike	Level		2.00
Sample	Value		< 1.0
Spiked	Sample	romium	75784-07 < 1.0
	Parameter	Hexavalent Chromium	

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Report Number: 75778

Date: 12/23/2010

Project Name: NGEM-AS-MOB

LCS Percent Recov. Limit	90.0-110
LCS Percent Recov.	95.9
Date Analyzed	12/17/10
Analysis Method	EPA 7199
Units	ng/L
Spike Level	2.00
Parameter	Hexavalent Chromium



2795 2nd Street, Suite 300 Davis, CA 95618

Lab: 530.297.4800 Fax: 530.297.4802 SRG # / Lab No.

75778

Page (of)

PRIMA ENVIR	ONMENTAL, Inc	 с.		Cali	forni	a EC)FRe	eport	?			Yes			No						Ch	ain-	of-	Cus	stoc	ly F	Rec	ord	ar	d A	۱na	lysi	s R	equ	uest			
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SAMPLE RECEIPT CHECKLIST 75778 Date:

RECEIVER	
LIR	
Initials	

SRG#:	75778	CIIE		216/0	Initials
Project ID:	-FM-A	10-1	406		
Method of Receipt:	Courier	Over-ti	he-counter [Shipper	
COC Inspection Is COC present? Custody seals on shipping container? Is COC Signed by Relinquisher? Is sampler name legibly indicated on COC? Is analysis or hold requested for all samples Is the turnaround time indicated on COC? Is COC free of whiteout and uninitialed cross	□No	Dated?	Yes ☐ Intact ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes	☐ No ☐ Broken ☐ Not ☐ No ☐ No ☐ No ☐ No ☐ No ☐ No ☐ No	present N/A
Are there custody seals on sample containers Do containers match COC? Are there samples matrices other than soil, w Are any sample containers broken, leaking or	No No, COC ater, air or carbon damaged? on sample contained ted? requested? e analyses request g odor or are other to the total to the total tot	c lists abs n? ers ted? erwise sus # of cont # of cont	☐ Intact sent sample(s) ☐ Yes ☐ Yes ☐ Yes, on COC ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes	☐ Broken ☐ No, Extra samp ☐ No Extra samp ☐ No ☐ No ☐ Not indicated ☐ No ☐ No ☐ No ☐ No ☐ No ☐ Yes	Not present le(s) present
If Sample ID's are listed on both COC and co Is the Project ID indicated: On CO If project ID is listed on both COC and conta Are the sample collection dates indicated: If collection dates are listed on both COC and	ontainers, do they OC	all match ple conta match? On sam ey all ma On sam	niner(s) On I Yes No iple container(s) itch? Yes iple container(s)	No E	Not indicated N/A licated Not indicated N/A Not indicated N/A Not indicated
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Date: 12/23/2010

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,



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

Method Measured Date/Time Reporting **Analysis** Parameter Value Limit Units Method 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

Method Measured Reporting Analysis Date/Time Parameter Value Units Method Limit Analyzed Hexavalent Chromium < 1.0 ug/L **EPA 7199** 12/21/10 09:06 1.0

Sample: NGEM-AS-EOS-HI-B Matrix: Water Lab Number: 75822-03

Sample Date :12/20/2010

Measured Date/Time Analysis Reporting Parameter Units Value Limit Method Analyzed Hexavalent Chromium 12/21/10 09:25 < 1.0 1.0 ug/L EPA 7199

Method

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF ANALYTICAL, LLC

QC Report : Method Blank Data

Report Number: 75822

Date: 12/23/2010

Project Name: NGEM-As-Mob

Project Number:

		Method						Method		
	Measured	Reportin	D	Analysis	Date		Measured	Reporting	_	Analysis
Parameter	Value	Limit	Units	Method	Analyzed	Parameter	Value	Limit	Units	Method
Hexavalent Chromium	< 1.0	1.0	na/L	EPA 7199 12/21/20	12/21/2010					

Date Analyzed

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number: 75822

Date: 12/23/2010

Project Name: NGEM-As-Mob

Relative Percent Diff. Limit	10
Spiked Sample Percent Recov. Limit	90.0-110
Relative Percent Diff.	0.0959
Duplicate Spiked Sample F Percent Recov.	96.7
Spiked Sample Date Percent Analyzed Recov.	12/21/10 96.6
Analysis Method	EPA 7199
e Units	ng/L
Duplicate Spiked Sample Value	5.37
Spiked Sample Value	5.37
Spike Dup. Level	5.00
Spike Level	5.00
Sample Value	v 1.0
Spiked Sample	omium 75822-01 < 1.0
Parameter	Hexavalent Chromium 75

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Report Number: 75822 Date: 12/23/2010

Project Name: NGEM-As-Mob

LCS Percent Recov. Limit	90.0-110
LCS Percent Recov.	98.8
Date Analyzed	12/21/10
Analysis Method	EPA 7199
Units	ng/L
Spike Level	5.00
Parameter	Hexavalent Chromium

KIFF Davis, CA Davis, CA Lab: 530 Fax: 53	95618	00	300									S	SRG	3 # /	Lab	No.		7	Z <u>•</u>	58	8	2"	2									Pa	ge		1	of	1
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Sample Designation Date NGEM: As: MDB: Con B 22010		4	S	<u>. (</u>	<u>} ⊢</u>	T	Ξ	I	╗	+		5 (C	S	<u> </u>	+	Σ δ	<u>m</u>	F	Ω.	_	۲	۲	Š	Χ	F	E	O	ίς.	Σ	Ĕ	≤	V	+	H	\dashv		0
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Distribution: White - Lab; Pink - Originator Rev: 060409



SAMPLE RECEIPT CHECKLIST

RECEIVER
TJB
Initials

SRG#: Date: 122010
Project ID: NGEM·As. Mob
Method of Receipt: Courier Over-the-counter Shipper
COC Inspection Is COC present? Custody seals on shipping container? Is COC Signed by Relinquisher? Is sampler name legibly indicated on COC? Is analysis or hold requested for all samples Is the turnaround time indicated on COC? Is COC free of whiteout and uninitialed cross-outs? Yes No No No Yes No No Yes No No Yes No No No No No No No No No N
Sample Inspection Coolant Present: Temperature °C
Are the Sample ID's indicated: On COC On sample container(s) On Both Not indicated If Sample ID's are listed on both COC and containers, do they all match? Yes No No N/A Is the Project ID indicated: On COC On sample container(s) On Both Not indicated If project ID is listed on both COC and containers, do they all match? Yes No NA Are the sample collection dates indicated: On COC On sample container(s) If collection dates are listed on both COC and containers, do they all match? Yes No NA Are the sample collection times indicated: On COC On sample container(s) If collection times are listed on both COC and containers, do they all match? Yes No No NA COMMENTS:
COMMENTS.
· ·



Date: 01/05/2011

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,



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

Method Measured Date/Time Reporting **Analysis** Parameter Value Limit Units Method 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

Method Measured Reporting Analysis Date/Time Parameter Units Method Value Limit Analyzed **Hexavalent Chromium** 1.0 ug/L **EPA 7199** 12/29/10 09:52 1.0

Sample: NGEM-AS-MOB-EOS-HI-C Matrix: Water Lab Number: 75883-03

Sample Date :12/28/2010

Measured Date/Time Analysis Reporting Parameter Units Value Limit Method Analyzed Hexavalent Chromium 12/29/10 10:02 < 1.0 1.0 ug/L EPA 7199

Method

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF ANALYTICAL, LLC

QC Report : Method Blank Data

Project Name: NGEM-As-Mob

Project Number:

	Analysis	Method	
	D	Units	
Method	Reporting	Limit	
	Measured	Value	
		Parameter	
	Date	Analyzed	12/29/2010
	Analysis	Method	EPA 7199 12/2
	g	Units	na/L
Method	Reportin	Limit	1.0
	Measured	Value	< 1.0
		Parameter	Hexavalent Chromium

Date Analyzed

Report Number: 75883

Date: 01/05/2011

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number: 75883

Date: 01/05/2011

Project Name: NGEM-As-Mob

Relative Percent Diff. Limit	10
Spiked Sample Percent Recov. Limit	90.0-110 10
te Relative t Percent Diff.	0.502
Duplicate Spiked Sample Percent Recov.	100
Spiked Sample Date Percent Analyzed Recov.	12/29/10 100
Analysis Method	EPA 7199
e Units	ng/L
Duplicate Spiked Sample Value	5.00
Spiked Sample Value	5.03
Spike Dup. Level	5.00
Spike Level	5.00
Sample Value	< 1.0
Spiked Sample	romium 75883-03 < 1.0
Parameter	Hexavalent Chromium

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Report Number: 75883

Date: 01/05/2011

Project Name: NGEM-As-Mob

LCS Percent Recov. Limit	90.0-110
LCS Percent Recov.	98.2
Date Analyzed	12/29/10
Analysis Method	EPA 7199
Units	ng/L
Spike Level	5.00
Parameter	Hexavalent Chromium

KIFF	
Analytical LLC	L

2795 2nd Street, Suite 300

Davis, CA 95618 Lab: 530.297.4800

SRG#/Lab No. ____75883

Page of _

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5070 Robert J. Mathews Pkwy, St El Dorado Hills, CA 95762	te 300	_	Sam	Sampling Company Log Code:																	Ana	llys	s R	equ	est						TAT				
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Project Name:			Sam	iple r	Prito	t Nar	ne;										ı		ME, T	Ĭ	EP/	۵	Volatile Organics Full List (EPA 8260B)	king			٦	PA 20		İ					S Us
Project Name: NGEM + AS, MOD)		-	10	0	<u>₹W</u> natur	\mathcal{L}	<u> 2</u>	ભા	<u>ر</u>	2					В)	l		E, TA	, Me	8	260E	P A 8	盲		ε	601	(F)	747	6				48hr	r Lal
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Sample Designation	Date	Time	40 ml VOA	Sleeve	Poly	Tedlar		ЮН	욁.	None		Water	Soil	₽į		MTBE @ 0.5 ppb (EPA	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE,	8	ead	Volatile Halocarbons (EPA 8260B)	/olati	/olati	TPH as Diesel (EPA 8015M)	TPH as Motor Oil (EPA 8015M)	CAM 17 Metals (EPA 200.7 / 6010)	Was	Mercury (EPA 245.1 / 7470 / 7471)	Total Lead (EPA 200.7 / 6010)	W.E.T. Lead (\exists		11 WK	
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Distribution: White - Lab; Pink - Originator

Rev: 060409



SAMPLE RECEIPT CHECKLIST

RECEIVER	
TJB	
Initials	

SRG#: 75883 Date: 1728/0
Project ID: NGEM - As - Mab
Method of Receipt:
COC Inspection Is COC present? Custody seals on shipping container? Is COC Signed by Relinquisher? Is sampler name legibly indicated on COC? Is analysis or hold requested for all samples Is the turnaround time indicated on COC? Is COC free of whiteout and uninitialed cross-outs? Yes No No Yes No Yes No Yes No No Yes No No Yes No No No No No No No No No No
Sample Inspection Coolant Present: Temperature °C
Are the Sample ID's indicated:
COMMENTS:



Date: 01/31/2011

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,



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

Method Measured Date/Time Reporting **Analysis** Parameter Value Limit Units Method 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

Method Measured Reporting Analysis Date/Time Parameter Units Method Value Limit Analyzed Hexavalent Chromium < 1.0 ug/L **EPA 7199** 01/25/11 09:54 1.0

Sample: NGEM-AS-MOB-EOS-HI-D Matrix: Water Lab Number: 76189-03

Sample Date :01/24/2011

Measured Date/Time Analysis Reporting Parameter Units Value Limit Method Analyzed 01/25/11 10:04 Hexavalent Chromium < 1.0 1.0 ug/L EPA 7199

Method

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Method Blank Data

Project Name: NGEM.As.Mob

Project Number:

ıe	Measured Value	Method Reporting Limit	g Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit l	Jnits	Analysis Method
ᄠ	< 1.0	1.0	ng/L	EPA 7199	01/25/2011					

Date Analyzed

Report Number: 76189

Date: 01/31/2011

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number: 76189

Date: 01/31/2011

Project Name: NGEM.As.Mob

Relative Percent Diff. Limit	10
Spiked Sample e Percent t Recov. Limit	90.0-110
Relative t Percent Diff.	5.71
Duplicate Spiked Sample F t Percent F Recov. L	108
Spiked Sample Percent Recov.	102
Date Analyzed	1/25/11
Analysis Method	EPA 7199
e Units	ng/L
Duplicate Spiked Sample Value	5.40
Spiked Sample Value	5.10
Spike Dup. Level	5.00
Spike Level	5.00
Sample Value	< 1.0
Spiked Sample	mium 76156-01 < 1.0
Parameter	Hexavalent Chromium

KIFF ANALYTICAL, LLC 2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Report Number: 76189

Date: 01/31/2011

Project Name: NGEM.As.Mob

LCS LCS Percent Date Percent Recov. Analyzed Recov. Limit	1/25/11 103 90.0-110
Analysis Method	EPA 7199
Units	ng/L
Spike Level	2.00
Parameter	Hexavalent Chromium

KIFF	
Analytical цо	

2795 2nd Street, Suite 300 Davis, CA 95618

Lab: 530.297.4800

SRG # / Lab No.

76189

Page ___ of ___

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SAMPLE RECEIPT CHECKLIST

RECEIVER
TJB
Initials

	SRG#:	7618	39		Date:	012411	
	Project ID:	NGE	M-As-	Mdb	17		
	Method of Re	eceipt:	Courier	Over-	the-counter	Shipper	
COC Inspection Is COC present? Custody seals on sh Is COC Signed by I Is sampler name leg Is analysis or hold r Is the turnaround tin Is COC free of white	Relinquisher? gibly indicated equested for a me indicated o	Yes on COC? Il samples n COC?		Dated?	Yes ☐ Intact X Yes X Yes X Yes X Yes X Yes X Yes	☐ No ☐ Broken ☐ Not present ☑ N ☐ No ☐ No ☐ No ☐ No ☐ No ☐ No ☐ No ☐	
Sample Inspection Coolant Present: Temperature °C Are there custody so Do containers matc Are there samples on Are preservatives in Are preservatives of Are samples within Are the correct sam Is there sufficient sa Does any sample coo Receipt Details Matrix Matrix Matrix Date and Time Sam	There eals on sample h COC? matrices other that ainers broken indicated? orrect for analyholding time fuple containers ample to performation product, Contain Contain	m. ID# containers Yes han soil, w , leaking or	No No, rater, air or car damaged? on sample conted? s requested? e analyses reag odor or are	COC lists aborbon? Intainers quested? otherwise su # of cor # of cor # of cor # of cor	☐ Intact psent sample(s) ☐ Yes ☐ Yes ☐ Yes, on CC ☐ Yes ☑ Yes ☑ Yes ☑ Yes ☑ Yes ☑ Yes ☑ Yes ☑ Yes ☑ Yes	Broken Not present No, Extra sample(s) present No No No No No No No No No No No No No	
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