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28 August 2020

Michael Hannigan
Kinder Morgan
17801 Hwy 491
Cortez, CO 81321
RE: EC/pH/SAR

Enclosed are the results of analyses for samples received by the laboratory on 08/26/20 14:45.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Jeremy D. Allen".

Jeremy D Allen For Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



Kinder Morgan
17801 Hwy 491
Cortez CO, 81321

Project: EC/pH/SAR
Project Name / Number: Drilling Pit Soil Samples GP-11 Surface
Project Manager: Michael Hannigan

Reported:
08/28/20 16:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
GP-11-SB-4	2008320-01	Solid	08/26/20 07:50	08/26/20 14:45	
GP-11-SB-5	2008320-02	Solid	08/26/20 07:55	08/26/20 14:45	
GP-11-SB-6	2008320-03	Solid	08/26/20 08:00	08/26/20 14:45	
GP-11-SB-7	2008320-04	Solid	08/26/20 08:05	08/26/20 14:45	
GP-11-SB-8	2008320-05	Solid	08/26/20 08:10	08/26/20 14:45	

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Kinder Morgan 17801 Hwy 491 Cortez CO, 81321	Project: EC/pH/SAR Project Name / Number: Drilling Pit Soil Samples GP-11 Surface Project Manager: Michael Hannigan	Reported: 08/28/20 16:48
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GP-11-SB-4

2008320-01 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	272	0.200	0.033	mg/L	2	08/28/20 14:12	EPA200.7		AES
Conductivity	1720			umho/cm @ 25.0°C	1	08/28/20 11:15	ASA#9 10-3.3		VJW
Magnesium	86.8	0.200	0.047	mg/L	2	08/28/20 14:12	EPA200.7		AES
pH	7.60			pH Units	1	08/28/20 07:49	ASA#9 10-3.2		VJW
SAR	0.67			No Unit	1	08/28/20 14:12	Calculation		AES
Sodium	49.7	2.00	0.201	mg/L	2	08/28/20 14:12	EPA200.7		AES

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GP-11-SB-5

2008320-02 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	492	0.500	0.083	mg/L	5	08/28/20 14:16	EPA200.7		AES
Conductivity	2570			umho/cm @ 25.0°C	1	08/28/20 11:15	ASA#9 10-3.3		VJW
Magnesium	155	0.500	0.117	mg/L	5	08/28/20 14:16	EPA200.7		AES
pH	7.54			pH Units	1	08/28/20 07:49	ASA#9 10-3.2		VJW
SAR	0.57			No Unit	1	08/28/20 14:16	Calculation		AES
Sodium	56.2	5.00	0.503	mg/L	5	08/28/20 14:16	EPA200.7		AES

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GP-11-SB-6

2008320-03 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	467	0.500	0.083	mg/L	5	08/28/20 14:23	EPA200.7		AES
Conductivity	2680			umho/cm @ 25.0°C	1	08/28/20 11:15	ASA#9 10-3.3		VJW
Magnesium	198	0.500	0.117	mg/L	5	08/28/20 14:23	EPA200.7		AES
pH	7.72			pH Units	1	08/28/20 07:49	ASA#9 10-3.2		VJW
SAR	0.50			No Unit	1	08/28/20 14:23	Calculation		AES
Sodium	51.0	5.00	0.503	mg/L	5	08/28/20 14:23	EPA200.7		AES

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GP-11-SB-7

2008320-04 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	105	0.100	0.017	mg/L	1	08/28/20 14:27	EPA200.7		AES
Conductivity	777			umho/cm @ 25.0°C	1	08/28/20 11:15	ASA#9 10-3.3		VJW
Magnesium	39.2	0.100	0.023	mg/L	1	08/28/20 14:27	EPA200.7		AES
pH	7.72			pH Units	1	08/28/20 07:49	ASA#9 10-3.2		VJW
SAR	0.33			No Unit	1	08/28/20 14:27	Calculation		AES
Sodium	15.7	1.00	0.101	mg/L	1	08/28/20 14:27	EPA200.7		AES

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GP-11-SB-8

2008320-05 (Solid)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Saturated Paste Extraction

Calcium	126	0.100	0.017	mg/L	1	08/28/20 14:31	EPA200.7		AES
Conductivity	821			umho/cm @ 25.0°C	1	08/28/20 11:15	ASA#9 10-3.3		VJW
Magnesium	34.7	0.100	0.023	mg/L	1	08/28/20 14:31	EPA200.7		AES
pH	7.54			pH Units	1	08/28/20 07:49	ASA#9 10-3.2		VJW
SAR	0.28			No Unit	1	08/28/20 14:31	Calculation		AES
Sodium	13.6	1.00	0.101	mg/L	1	08/28/20 14:31	EPA200.7		AES

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Project: EC/pH/SAR
Project Name / Number: Drilling Pit Soil Samples GP-11 Surface
Project Manager: Michael Hannigan

Reported:
08/28/20 16:48

Saturated Paste Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201717 - Paste Extract

Duplicate (B201717-DUP1)		Source: 2008317-01		Prepared: 08/27/20		Analyzed: 08/28/20				
pH	7.54		pH Units		7.46			1.07	20	
Duplicate (B201717-DUP2)		Source: 2008320-05		Prepared: 08/27/20		Analyzed: 08/28/20				
pH	7.54		pH Units		7.54			0.00	20	
Duplicate (B201717-DUP3)		Source: 2008326-02		Prepared: 08/27/20		Analyzed: 08/28/20				
pH	9.18		pH Units		9.14			0.437	20	
Reference (B201717-SRM1)				Prepared: 08/27/20		Analyzed: 08/28/20				
pH	7.19		pH Units	6.98		103	95-105			
Reference (B201717-SRM2)				Prepared: 08/27/20		Analyzed: 08/28/20				
pH	7.20		pH Units	6.98		103	95-105			

Batch B201718 - Paste Extract

Duplicate (B201718-DUP1)		Source: 2008317-01		Prepared: 08/27/20		Analyzed: 08/28/20				
Conductivity	1910		umho/cm @ 25.0°C		1940			1.19	20	
Duplicate (B201718-DUP2)		Source: 2008320-05		Prepared: 08/27/20		Analyzed: 08/28/20				
Conductivity	882		umho/cm @ 25.0°C		821			7.16	20	
Duplicate (B201718-DUP3)		Source: 2008326-02		Prepared: 08/27/20		Analyzed: 08/28/20				
Conductivity	2180		umho/cm @ 25.0°C		2300			5.36	20	
Reference (B201718-SRM1)				Prepared: 08/27/20		Analyzed: 08/28/20				
Conductivity	2990		umho/cm @ 25.0°C	2930		102	90-110			
Reference (B201718-SRM2)				Prepared: 08/27/20		Analyzed: 08/28/20				
Conductivity	2690		umho/cm @ 25.0°C	2930		91.8	90-110			

Batch B201719 - Paste Extract

Blank (B201719-BLK1)				Prepared: 08/27/20		Analyzed: 08/28/20				
Calcium	ND	0.100	mg/L							
Magnesium	ND	0.100	mg/L							
SAR	0.00		No Unit							
Sodium	ND	1.00	mg/L							

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**Saturated Paste Extraction - Quality Control
(Continued)**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B201719 - Paste Extract (Continued)

Duplicate (B201719-DUP1)		Source: 2008317-01		Prepared: 08/27/20		Analyzed: 08/28/20		
Calcium	396	0.200	mg/L		407		2.60	20
Magnesium	94.6	0.200	mg/L		97.1		2.66	20
SAR	0.28		No Unit		0.29		3.51	20
Sodium	24.1	2.00	mg/L		24.7		2.24	20
Duplicate (B201719-DUP2)		Source: 2008320-05		Prepared: 08/27/20		Analyzed: 08/28/20		
Calcium	136	0.100	mg/L		126		7.88	20
Magnesium	38.0	0.100	mg/L		34.7		9.09	20
SAR	0.27		No Unit		0.28		3.64	20
Sodium	14.0	1.00	mg/L		13.6		3.06	20
Duplicate (B201719-DUP3)		Source: 2008326-02		Prepared: 08/27/20		Analyzed: 08/28/20		
Calcium	ND	0.100	mg/L		475			20
Magnesium	ND	0.100	mg/L		18.7			20
SAR	1.88		No Unit		1.90		1.06	20
Sodium	ND	1.00	mg/L		155			20
Reference (B201719-SRM1)				Prepared: 08/27/20		Analyzed: 08/28/20		
SAR	5.63		No Unit	5.79		97.2	90-110	
Reference (B201719-SRM2)				Prepared: 08/27/20		Analyzed: 08/28/20		
SAR	5.64		No Unit	5.79		97.4	90-110	

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Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.
- RPD Relative Percent Difference
- LCS Laboratory Control Sample (Blank Spike)
- RL Report Limit
- MDL Method Detection Limit

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