

Analytical Report

Report Summary

Client: Mustang Resources LLC

Samples Received: 4/1/2020

Job Number: 18109-0002

Work Order: P004004

Project Name/Location: Simmons E 2A **API #30-045-22802**

Report Reviewed By:



Date: 4/8/20

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNi unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.
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Envirotech, Inc, holds the Utah TNi certification NM009792018-1 for the data reported.
Envirotech, Inc, holds the Texas TNi certification T104704557-19-2 for the data reported.

Mustang Resources LLC	Project Name:	Simmons E 2A	Reported: 04/08/20 10:11
1220 S Main	Project Number:	18109-0002	
Aztec NM, 87410	Project Manager:	Don Johnson	

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Simmons E2A	P004004-01A	Aqueous	03/31/20	04/01/20	Poly 500mL

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Mustang Resources LLC 1220 S Main Aztec NM, 87410	Project Name: Simmons E 2A Project Number: 18109-0002 Project Manager: Don Johnson	API #30-045-22802	Reported: 04/08/20 10:11
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**Simmons E2A
P004004-01 (Water)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Wet Chem/Gravimetric

Total Dissolved Solids	9620	25.0	mg/L	1	2014014	04/01/20	04/07/20	SM2540C	
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Dissolved Metals by 6010

Sodium Absorption Ratio	65.8		N/A	1	2014031	04/03/20	04/03/20	[CALC]	
Calcium	184	1.00	mg/L	1	2014018	04/02/20	04/02/20	EPA 6010C	
Iron	ND	2.00	mg/L	1	2014018	04/02/20	04/02/20	EPA 6010C	
Magnesium	ND	1.00	mg/L	1	2014018	04/02/20	04/02/20	EPA 6010C	
Potassium	11.2	1.00	mg/L	1	2014018	04/02/20	04/02/20	EPA 6010C	
Sodium	3240	100	mg/L	50	2014018	04/02/20	04/02/20	EPA 6010C	

Anions by 300.0/9056A

Fluoride	ND	5.00	mg/L	20	2014021	04/01/20	04/01/20	EPA 300.0/9056A	
Chloride	93.6	40.0	mg/L	20	2014021	04/01/20	04/01/20	EPA 300.0/9056A	
Nitrite-N	ND	5.00	mg/L	20	2014021	04/01/20 15:51	04/01/20 18:54	EPA 300.0/9056A	
Nitrate-N	ND	5.00	mg/L	20	2014021	04/01/20 15:51	04/01/20 18:54	EPA 300.0/9056A	
o-Phosphate-P	ND	5.00	mg/L	20	2014021	04/01/20 15:51	04/01/20 18:54	EPA 300.0/9056A	
Sulfate	5740	40.0	mg/L	20	2014021	04/01/20	04/01/20	EPA 300.0/9056A	

Wet Chemistry

pH @25°C	12.0		pH Units	1	2015004	04/06/20 09:31	04/06/20 15:36	9040C/4500 H+B	H5
Specific Conductance (@ 25 C)	13800	10.0	uS/cm	1	2015005	04/06/20	04/07/20	9050A/2510 B	
Total Alkalinity (as CaCO3 at pH 4.5)	1000	10.0	mg/L	1	2015009	04/07/20	04/07/20	SM2320B	

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Wet Chem/Gravimetric - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2014014 - Wet Chemistry Preparation

Blank (2014014-BLK1)	Prepared: 04/01/20 0 Analyzed: 04/06/20 0									
Total Dissolved Solids	ND	10.0	mg/L							
LCS (2014014-BS1)	Prepared: 04/01/20 0 Analyzed: 04/06/20 0									
Total Dissolved Solids	89.0	10.0	mg/L	100		89.0	55-134			
Duplicate (2014014-DUP1)	Source: P003140-02 Prepared: 04/01/20 0 Analyzed: 04/06/20 0									
Total Dissolved Solids	77100	100	mg/L		77400			0.363	5	

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Dissolved Metals by 6010 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2014018 - Metals Water Hotblock Digestion EPA 3010A/200.2

Blank (2014018-BLK1)

Prepared & Analyzed: 04/02/20 1

Calcium	ND	1.00	mg/L							
Iron	ND	2.00	"							
Magnesium	ND	1.00	"							
Potassium	ND	1.00	"							
Sodium	ND	2.00	"							

LCS (2014018-BS1)

Prepared & Analyzed: 04/02/20 1

Calcium	47.6	1.00	mg/L	50.0		95.2	80-120			
Iron	94.1	2.00	"	100		94.1	80-120			
Magnesium	49.4	1.00	"	50.0		98.9	80-120			
Potassium	4.88	1.00	"	5.00		97.5	80-120			
Sodium	17.8	2.00	"	20.0		89.1	80-120			

Matrix Spike (2014018-MS1)

Source: P003140-01

Prepared & Analyzed: 04/02/20 1

Calcium	54.7	1.00	mg/L	50.0	6.26	96.9	75-125			
Iron	106	2.00	"	100	8.06	97.5	75-125			
Magnesium	52.8	1.00	"	50.0	4.10	97.4	75-125			
Potassium	30.5	1.00	"	5.00	23.9	132	75-125			M2
Sodium	1020	20.0	"	20.0	1010	30.0	75-125			M5

Matrix Spike Dup (2014018-MSD1)

Source: P003140-01

Prepared & Analyzed: 04/02/20 1

Calcium	57.7	1.00	mg/L	50.0	6.26	103	75-125	5.31	20	
Iron	109	2.00	"	100	8.06	101	75-125	3.53	20	
Magnesium	56.0	1.00	"	50.0	4.10	104	75-125	5.84	20	
Potassium	32.0	1.00	"	5.00	23.9	162	75-125	4.86	20	M2
Sodium	1100	20.0	"	20.0	1010	430	75-125	7.55	20	

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Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2014021 - Anion Extraction EPA 300.0/9056A

Blank (2014021-BLK1)

Prepared & Analyzed: 04/01/20 1

Fluoride	ND	0.250	mg/L							
Chloride	ND	2.00	"							
Nitrite-N	ND	0.250	"							
Nitrate-N	ND	0.250	"							
o-Phosphate-P	ND	0.250	"							
Sulfate	ND	2.00	"							

LCS (2014021-BS1)

Prepared & Analyzed: 04/01/20 1

Fluoride	2.50	0.250	mg/L	2.50		100	90-110			
Chloride	24.9	2.00	"	25.0		99.4	90-110			
Nitrite-N	2.46	0.250	"	2.50		98.4	90-110			
Nitrate-N	2.54	0.250	"	2.50		102	90-110			
o-Phosphate-P	12.3	0.250	"	12.5		98.2	90-110			
Sulfate	24.9	2.00	"	25.0		99.4	90-110			

LCS Dup (2014021-BSD1)

Prepared & Analyzed: 04/01/20 1

Fluoride	2.52	0.250	mg/L	2.50		101	90-110	0.836	20	
Chloride	24.8	2.00	"	25.0		99.1	90-110	0.363	20	
Nitrite-N	2.46	0.250	"	2.50		98.5	90-110	0.0812	20	
Nitrate-N	2.53	0.250	"	2.50		101	90-110	0.552	20	
o-Phosphate-P	12.2	0.250	"	12.5		97.8	90-110	0.327	20	
Sulfate	24.8	2.00	"	25.0		99.2	90-110	0.209	20	

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Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2015004 - Wet Chemistry Preparation

LCS (2015004-BS1)										Prepared: 04/06/20 0 Analyzed: 04/06/20 1
pH	7.95		pH Units	8.00		99.7	98.75-101.25			
Duplicate (2015004-DUP1)										Source: P004004-01 Prepared: 04/06/20 0 Analyzed: 04/06/20 1
pH	12.0		pH Units	12.0				0.00	20	

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Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2015005 - Wet Chemistry Preparation

Blank (2015005-BLK1)										Prepared: 04/06/20 0 Analyzed: 04/07/20 1
Specific Conductance (@ 25 C)	ND	10.0	uS/cm							
LCS (2015005-BS1)										Prepared: 04/06/20 0 Analyzed: 04/07/20 1
Specific Conductance (@ 25 C)	1430	10.0	uS/cm	1410		101	98-102			
Duplicate (2015005-DUP1)										Source: P004004-01 Prepared: 04/06/20 0 Analyzed: 04/07/20 1
Specific Conductance (@ 25 C)	13900	10.0	uS/cm		13800			0.434	20	

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Wet Chemistry - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2015009 - Wet Chemistry Preparation

LCS (2015009-BS1)

Prepared: 04/07/20 0 Analyzed: 04/07/20 1

Total Alkalinity (as CaCO3 at pH 4.5)	231	10.0	mg/L	250		92.4	70-130			
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LCS Dup (2015009-BSD1)

Prepared: 04/07/20 0 Analyzed: 04/07/20 1

Total Alkalinity (as CaCO3 at pH 4.5)	245	10.0	mg/L	250		98.0	70-130	5.88	20	
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QC Summary Report

Comment:

Calculations are based off of the 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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1220 S Main	Project Number:	18109-0002		Reported:
Aztec NM, 87410	Project Manager:	Don Johnson		04/08/20 10:11

Notes and Definitions

- M5 The analysis of the MS sample required a dilution such that the spike recovery calculation does not provide useful information. The associated LCS spike recovery was acceptable.
- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- H5 pH is specified to be performed in the field within 15 minutes of sampling. The sample was performed as quickly as possible.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- ** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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