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13 August 2015

Katie Wohlust
Red Willow Production
PO Box 369
Ignacio, CO 81137
RE: ph, EC, SAR

Enclosed are the results of analyses for samples received by the laboratory on 08/10/15 09:43.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

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



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PO Box 369
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Project: ph, EC, SAR
Project Name / Number: 34-10 #28-2 PL
Project Manager: Katie Wohlust

Reported:
08/13/15 15:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Origin	1508107-01	Solid	08/08/15 15:10	08/10/15 09:43
Mid	1508107-02	Solid	08/08/15 15:10	08/10/15 09:43
Terminus	1508107-03	Solid	08/08/15 15:20	08/10/15 09:43

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Debbie Zufelt, Reports Manager

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Origin

1508107-01 (Solid)

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

Calcium	18.6	10.0	0.039	mg/L	10	08/13/15	EPA200.7		JGS
Conductivity	402			umhos/cm	1	08/13/15	ASA#9 10-3.3		LLG
Magnesium	<10.0	10.0	0.190	mg/L	10	08/13/15	EPA200.7		JGS
pH	7.80			pH Units	1	08/13/15	ASA#9 12-2.6		LLG
SAR	4.94			[blank]	1	08/13/15	Calculation		JGS
Sodium	89.9	20.0	0.041	mg/L	10	08/13/15	EPA200.7		JGS

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Mid

1508107-02 (Solid)

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

Calcium	17.3	10.0	0.039	mg/L	10	08/13/15	EPA200.7		JGS
Conductivity	326			umhos/cm	1	08/13/15	ASA#9 10-3.3		LLG
Magnesium	<10.0	10.0	0.190	mg/L	10	08/13/15	EPA200.7		JGS
pH	8.04			pH Units	1	08/13/15	ASA#9 12-2.6		LLG
SAR	5.59			[blank]	1	08/13/15	Calculation		JGS
Sodium	98.0	20.0	0.041	mg/L	10	08/13/15	EPA200.7		JGS

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Terminus

1508107-03 (Solid)

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

Calcium	39.9	10.0	0.039	mg/L	10	08/13/15	EPA200.7		JGS
Conductivity	456			umhos/cm	1	08/13/15	ASA#9 10-3.3		LLG
Magnesium	<10.0	10.0	0.190	mg/L	10	08/13/15	EPA200.7		JGS
pH	7.59			pH Units	1	08/13/15	ASA#9 12-2.6		LLG
SAR	3.10			[blank]	1	08/13/15	Calculation		JGS
Sodium	81.5	20.0	0.041	mg/L	10	08/13/15	EPA200.7		JGS

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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 B508112 - General Prep - Wet Chem

Duplicate (B508112-DUP1)	Source: 1508105-01			Prepared & Analyzed: 08/13/15						
pH	8.54		pH Units		8.59			0.584	20	

Batch B508114 - General Prep - Wet Chem

Duplicate (B508114-DUP1)	Source: 1508105-01			Prepared & Analyzed: 08/13/15						
Conductivity	882		umhos/cm		1060			18.6	20	

Batch B508115 - Paste Extract

Duplicate (B508115-DUP1)	Source: 1508105-01			Prepared: 08/12/15 Analyzed: 08/13/15						
Calcium	37.3	10.0	mg/L		30.2			20.8	20	R2
Magnesium	5.64	10.0	mg/L		3.50			46.7	20	R2
Sodium	266	20.0	mg/L		262			1.70	20	

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Notes and Definitions

R2 Duplicate sample RPD exceeded the method control limit. One or more of the duplicates was less than 5X reporting limit.

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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