

Attachment A

Chemical Analysis of Recycled Water

HALLIBURTON

Rockies Lab Water Analysis Report
District: Grand Junction

Tested By Zac Davis
Reported By Zac Davis

Customer and Well Information

Company	<u>WPX</u>	Well/Sample Name	<u>Parachute</u>
Report To	<u>Mark Mayo</u>	Date Received	<u>1/15/2013</u>
		Date Tested	<u>1/15/2013</u>

Sample Physical Characteristics

Sample 1	<u>W008</u>			
Temperature	<u>55.0</u>	°F	Resistivity	<u>0.8</u> Ω·m
Specific Gravity	<u>1.013</u>		Conductivity	<u>38.1</u> mS/cm
pH	<u>7.3</u>		TDS	<u>18414.0</u> mg/L
Turbidity	<u>115.0</u>	FNU	Color (observation)	<u>Clear</u>

Sample Chemical Characteristics

Anions

Chloride	<u>10830</u>	mg/L	Total Iron	<u>2.5</u>	mg/L
Sulfate	<u>20</u>	mg/L	Ferrous Iron	<u>0.1</u>	mg/L
Carbonate	<u>0</u>	mg/L	Potassium	<u>47</u>	mg/L
Bicarbonate	<u>680</u>	mg/L	Calcium	<u>725</u>	mg/L
Hydroxide	<u>0</u>	mg/L	Magnesium	<u>65</u>	mg/L
			Sodium (calculated)	<u>6305</u>	mg/L

Cations

General Comments

0

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

HALLIBURTON

Rockies Lab Water Analysis Report

District: Grand Junction

Tested By

Brandon Champion

Reported By

Carter Tuttle

Customer and Well Information

Company	WPX	Well/Sample Name	Parachute Injection Water W471
Report To	Mark Mayo	Date Received	10/10/2012
		Date Tested	10/12/2012

Sample Physical Characteristics

Sample 1	Parachute Injection Water	Sample 2			
Temperature	68.0	°F	Temperature		°F
Specific Gravity	1.015		Specific Gravity		
pH	7.5		pH		
Turbidity	123.0	FNU	Turbidity		FNU
Resistivity	0.4	Ω·m	Resistivity		Ω·m
Conductivity	37.4	mS/cm	Conductivity		mS/cm
TDS	24200.0	mg/L	TDS		mg/L
Color (observation)	Light yellow		Color (observation)		

Sample Chemical Characteristics

Anions

Chloride	9447	mg/L
Sulfate	10	mg/L
Carbonate	424	mg/L
Bicarbonate	212	mg/L
Hydroxide	0	mg/L
Total Iron	3	mg/L
Ferrous Iron	0.1	mg/L
Potassium	82	mg/L
Calcium	720	mg/L
Magnesium	128	mg/L
Sodium (calculated)	5417	mg/L

Cations

Chloride		mg/L
Sulfate		mg/L
Carbonate		mg/L
Bicarbonate		mg/L
Hydroxide		mg/L
Total Iron		mg/L
Ferrous Iron		mg/L
Potassium		mg/L
Calcium		mg/L
Magnesium		mg/L
Sodium (calculated)		mg/L

General Comments

0

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.