

## Water Analysis Report

Attention: **Herb.Samson@CHAMP-TECH.com**

Customer: **WPX Energy (1503876)**

Location Code: **296562**

Region: **Piceance Field**

Sample ID: **AF89552**

Location: **Garfield County, CO**

Login Batch: **160315170837**

System: **Disposal Well**

Collection Date: **03/14/2016**

Equipment: **SG 914-32**

Receive Date: **03/15/2016**

Lab ID: **ABU-0021**

Report Date: **03/21/2016**

Sample Point: **First Sample**

Analyses	Result	Unit
Dissolved H2S	<b>Not Detected</b>	mg/L
pH	<b>12.23</b>	
Pressure	<b>200</b>	psi
Temperature	<b>100</b>	° F

Analyses	Result	Unit
Bicarbonate	<b>525</b>	mg/L
Carbonate	<b>1920</b>	mg/L
Conductivity	<b>3423</b>	µS - cm3
Ionic Strength	<b>0.04</b>	
Resistivity	<b>2.921</b>	ohms - m
Specific Gravity	<b>1.0036</b>	
Total Dissolved Solids	<b>2213.073</b>	mg/L

Cations	Result	Unit
Iron	<b>21.78</b>	mg/L
Manganese	<b>0.633</b>	mg/L
Barium	<b>9.08</b>	mg/L
Strontium	<b>2.74</b>	mg/L
Calcium	<b>214.34</b>	mg/L
Magnesium	<b>11.05</b>	mg/L
Sodium	<b>1007.45</b>	mg/L

Anions	Result	Unit
Chloride	<b>342</b>	mg/L
Sulfate	<b>79</b>	mg/L

Scale Type	Result
Anhydrite CaSO4 SI	<b>-2.27</b>
Barite BaSO4 PTB	<b>5.1</b>
Barite BaSO4 SI	<b>1.75</b>
Calcite CaCO3 PTB	<b>187.4</b>
Calcite CaCO3 SI	<b>5.74</b>
Celestite SrSO4 SI	<b>-1.75</b>
Gypsum CaSO4 SI	<b>-2.09</b>
Hemihydrate CaSO4 SI	<b>-1.87</b>
Saturation Index Calculation (Tomson-Oddo Model)	

Comments: