

SCANNED



02440284

*Analysis of Inj
Source water*

HALLIBURTON

Rockies, Grand Junction

Lab Results-PE

Job Information

Request ID	2013650/1	Rig Name		Date	12/MAR/2015
Submitted By	Zachary Green	Job Type	Fracturing/Stimulation	Well	Smith Gulch
Customer	WPX Energy, Inc.	Location			

Well Information

Formation	Unknown	Depth MD		BHST	
Pressure		Depth TVD		Cool Down Temperature	

Fluid Results Request ID 2013650/ 1

Water Analysis, Request Test ID:30067801

Tank Number/Source	Specific Gravity	pH	Chlorides (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Dissolved Iron (mg/L)	Potassium (mg/L)
W066	1.0135	7.60	11878	675	125	4.2	60

Bicarbonates (mg/L)	Carbonates (mg/L)	Hydroxides (mg/L)	Sulfates (mg/L)	TDS (mg/L)	Rw Resistivity (Ohms-Meter)	Temperature (°F)
955	0	0	0	16200	0.395	70.1

This water sample was collected from the Smith Gulch 31-32-796 water recycle pit (COGCC Facility # 432534). This analysis represents the quality of water that will be injected into this injection well.

Job Information

Request ID	2012313/1	Rig Name		Date	24/JAN/2015
Submitted By	Jason Martinez	Job Type	Conformance	Well	Parachute CE & P
Customer	WPX Energy, Inc.	Location			

Well Information

Formation	Unknown	Depth MD		BHST	
Pressure		Depth TVD		Cool Down Temperature	

Request Comments

W025

Fluid Results Request ID 2012313/ 1

Water Analysis, Request Test ID:30061298

Tank Number/Source	Specific Gravity	pH	Chlorides (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Dissolved Iron (mg/L)	Potassium (mg/L)
Parachute CE & P	1.013	7.96	9405	715	190	1.4	50

Bicarbonates (mg/L)	Carbonates (mg/L)	Sulfates (mg/L)	Sodium (mg/L)	TDS (mg/L)	Rw Resistivity (Ohms-Meter)	Temperature (°F)
765	0	20	5187	17200	0.406	66.9

Turbidity (FNU)= 180
 Conductivity (mS/cm)= 30.2
 Color (observation)= Opaque

Additional Comments

This water sample was collected from the Parachute Centralized E&P Waste Management Facility (COGCC Facility # 149015). This analysis represents the quality of water that will be injected into this injection well.

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Job Information

Request ID	2012313/1	Rig Name		Date	24/JAN/2015
Submitted By	Jason Martinez	Job Type	Conformance	Well	Parachute CE & P
Customer	WPX Energy, Inc	Location			

Well Information

Formation	Unknown	Depth MD		BHST	
Pressure		Depth TVD		Cool Down Temperature	

Request Comments

W025

Fluid Results Request ID 2012313/ 1

Water Analysis, Request Test ID:30061298

Tank Number/Source	Specific Gravity	pH	Chlorides (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Dissolved Iron (mg/L)	Potassium (mg/L)
Parachute CE & P	1.013	7.96	9405	715	190	1.4	50

Bicarbonates (mg/L)	Carbonates (mg/L)	Sulfates (mg/L)	Sodium (mg/L)	TDS (mg/L)	Rw Resistivity (Ohms-Meter)	Temperature (°F)
765	0	20	5187	17200	0.406	66.9

Turbidity (FNU)= 180
Conductivity (mS/cm)= 30.2
Color (observation)= Opaque

Additional Comments

This water sample was collected from the Parachute Centralized E&P Waste Management Facility (COGCC Facility # 149015). This analysis represents the quality of water that will be injected into this injection well.

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Job Information

Request ID	2009372	Rig Name		Date	30/SEP/2014
Submitted By	Nathan Barnum	Job Type	Fracturing/Stimulation	Well	Parachute C E&P WMF
Customer	WPX Energy, Inc.	Location			

Well Information

Formation	Unknown	Depth MD		BHST	
Pressure		Depth TVD		Cool Down Temperature	

Results For Request ID 2009372

Water Analysis

Tank Number/Source	Specific Gravity	pH	Chlorides (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Dissolved Iron (mg/L)	Potassium (mg/L)
W390	1.014	8.43	11364	530	50	1.0	98

Bicarbonates (mg/L)	Carbonates (mg/L)	Sulfates (mg/L)	Sodium (mg/L)	TDS (mg/L)	Rw Resistivity (Ohms-Meter)	Temperature (°F)
490	120	20	6892	19295	0.362	66

GOGCC # 149015

Conductivity 43.8 mS

This water sample was collected from the Parachute Centralized E&P Waste Management Facility (COGCC Facility # 149015). This analysis represents the quality of water that will be injected into the injection well.

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Job Information

Request ID	2006512	Rig Name		Date	12/JUN/2014
Submitted By	Nathan Barnum	Job Type	Fracturing/Stimulation	Well	Parachute
Customer	WPX Energy, Inc.	Location			

Well Information

Formation	Unknown	Depth MD		BHST	
Pressure		Depth TVD		Cool Down Temperature	

Results For Request ID 2006512

Water Analysis

Tank Number/Source	Specific Gravity	pH	Chlorides (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Dissolved Iron (mg/L)	Potassium (mg/L)
W260	1.011	7.45	7728	490	500	9.8	92

Bicarbonates (mg/L)	Carbonates (mg/L)	Hydroxides (mg/L)	Sulfates (mg/L)	Sodium (mg/L)	TDS (mg/L)	Rw Resistivity (Ohms-Meter)	Temperature (°F)
680	0	0	10	3698	13000	0.502	65

Conductivity - 23.0 mS

This water sample was collected from the Parachute Centralized E&P Waste Management Facility (COGCC Facility # 149015). This analysis represents the quality of water that will be injected into this well

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4. FORM 31: Analysis of Injection Source Water

The attached results are representative of the planned injection water.

The injection water, which consists of both produced and flowback water, will be pumped from the Smith Gulch Water Recycling Pit (COGCC ID 432534) to the SG 924-29D injection well.

A list of contributing wells and the attached water samples are also to be submitted as part of the COGCC Form 26 under tab 20.