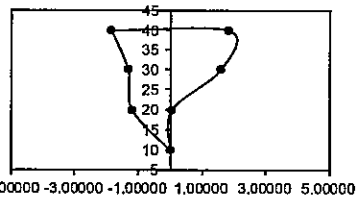


EPIC							
County: San Juan				Field: 0			
State: NM				Location: KRAUSE WN FEDERAL 2E			
Sampled at: 0				Formation: N/A			
Date: MAY 8, 2024				Depth: 0			
Envision Products				Water Analysis			
Sum +	mg/L	meq/L		Sum -	mg/L	meq/L	
Potassium	0.0	0.00		Sulfate	42.0	0.87	
Sodium	1,612.5	70.14		Chloride	2,500.0	70.52	
Calcium	404.0	20.16		Carbonate	0.0	0.00	
Magnesium	192.4	15.83		Bicarbonate	2,430.0	39.82	
Iron	13.6	0.73		Hydroxide	0.0	0.00	
Barium	0.0	0.00	Analysis	-	0.0	0.00	
Strontium	0.0	0.00	Balanced	-	0.0	0.00	
CATIONS	2,222.5	106.86		ANIONS	4,972.0	111.21	
System Parameters							
Total Dissolved Solids @180C				7,194	mg/L		
Sample Temperature, °F				70	F		
Sample pH, standard units				9.53	Units		
Dissolved Oxygen				0.0	ppm		
Carbon Dioxide				0.0	mg/L		
Total Sulfide, (TS)				0.0	mg/L		
Sulfide Ion, (S)				0	mg/L		
Dissolved Hydrogen Sulfide, (TS-S)				0	mg/L		
Specific Gravity				1.0047			
Resistivity, measured				0	ohm/m³		
Ionic strength				0.128			
Sulfate Reducing Bacteria				na			
Aerobic Bacteria				na			
Manganese Level				0	mg/L		
Chemical				N/A	ppm		
Amine				N/A	ppm		
Scaling Tendency							
CACO3				CASO4			
Stiff Davis		A		SOLUBILITY		S A	
Temp F	Index	Index	Temp F	Actual	Calculated	Index	Index
32	3.03	353					
50	3.22	353	50	0.87	29.40	-28.52	-680
68	3.42	353	68	0.87	29.90	-29.03	-692
77	3.53	353	86	0.87	30.40	-29.52	-704
86	3.63	354	104	0.87	30.69	-29.82	-711
104	3.85	354	122	0.87	30.78	-29.91	-713
122	4.08	354	140	0.87	29.91	-29.04	-692
140	4.33	354	158	0.87	29.02	-28.15	-671
158	4.58	354	176	0.87	28.11	-27.23	-649
176	4.84	354					
BASO4 SCALE POSSIBLE				NO			
Water Analysis Pattern							
NOTE: Stiff Davis Index				40 30 20 10 0 20 30 40			
- indicates undersaturation. Scale formation negative.							
0 indicates the water is at saturation point. Scale unlikely.							
+ indicates supersaturation. A positive scaling condition exists							
NOTE: Skillman Method Calcium Sulfate 'S' Index							
- indicates undersaturation. Scale formation negative.							
0 indicates the water is at saturation point. Scale unlikely.							
+ indicates supersaturation. A positive scaling condition exists							
NOTE: A Index; worst possible case. Assumes 100% precipitation.							
- Units = pounds of scale produced / 1000 bbls. of water.							
- A Index < 0 Scale formation negative.							
- A Index > 0 Scale formation positive.							
				Approved: Desirae			
				05/08/24 #			



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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 348762

CONDITIONS

Operator: EPIC ENERGY, L.L.C. 332 Road 3100 Aztec, NM 87410	OGRID: 372834
	Action Number: 348762
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	TDS 7194 - produced water	7/8/2024
mkuehling	approved for record only	9/3/2024