



ANNUAL REPORT OF PRESSURE MONITORING, FLUID INJECTION AND ENHANCED RECOVERY

Complete all blanks - add pages if needed. Copy to be retained for five (5) years after filing date.

OPERATOR: License # _____
Name: _____
Address 1: _____
Address 2: _____
City: _____ State: _____ Zip: _____ + _____
Contact Person: _____
Phone: (_____) _____
Lease Name: _____
Well Number: _____

API No.: _____
Permit No.: _____
Reporting Year: _____
(January 1 to December 31)
____ - ____ - ____ - ____ Sec. ____ Twp. ____ S. R. ____ E W
(a/a/a/a)
_____ feet from N / S Line of Section
_____ feet from E / W Line of Section
County: _____

I. Injection Fluid:

Type (Pick one): Fresh Water Treated Brine Untreated Brine Water/Brine
Source: Produced Water Other (Attach list)
Quality: Total Dissolved Solids: _____ mg/l Specific Gravity: _____ Additives: _____
(Attach water analysis, if available)

II. Well Data:

Maximum Authorized Injection Pressure: _____ psi Injection Zone: _____
Maximum Authorized Injection Rate: _____ barrels per day
Total Number of Enhanced Recovery Injection Wells Covered by this Permit: _____ (Include TA's)

III.	Month:	Total Fluid Injected BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
	January	_____	_____	_____	_____	_____
	February	_____	_____	_____	_____	_____
	March	_____	_____	_____	_____	_____
	April	_____	_____	_____	_____	_____
	May	_____	_____	_____	_____	_____
	June	_____	_____	_____	_____	_____
	July	_____	_____	_____	_____	_____
	August	_____	_____	_____	_____	_____
	September	_____	_____	_____	_____	_____
	October	_____	_____	_____	_____	_____
	November	_____	_____	_____	_____	_____
	December	_____	_____	_____	_____	_____
	TOTAL	_____	_____	_____	_____	_____



Bachman Services, Inc.
 2220 S Prospect, Oklahoma City, OK 73128
 an innospec company

Phone: (405) 677-8286
 Fax: (405) 677-7483

WATER ANALYSIS REPORT

Company: JACK BOWLES

Sample Point: N/A

Source: WHITESIDE

Date Sampled: 2/3/2017

Well No: #1

Date Analyzed: 2/6/2017

pH:	6.50	Total Dissolved Solids (mg/L):	85.879
Dissolved H ₂ S:	25.00	Total Ionic Strength:	1.904
Dissolved CO ₂ :	65.00	Specific Gravity:	1.075
Resistivity @ 75°F(Ohm-Meters):	0.08150	Density. (lbs/gal):	8.97

Cations	mg/L	Meq/L	Anions	mg/L	Meq/L
Calcium	10.022	501	Carbonate	0	0
Magnesium	2.854	234	Bicarbonate	348	6
Sodium	18.355	798	Chloride	54.000	1,521
Barium	0		Sulfate	300	6
Strontium	0		Total Hardness	36.800	
Total Dissolved Iron	0.30				

PROBABLE MINERAL COMPOSITION

	mg/L	Meq/L
Calcium Bicarbonate:	462	6
Calcium Sulfate:	425	6
Calcium Chloride:	27,149	489
Magnesium Bicarbonate:	0	0
Magnesium Sulfate:	0	0
Magnesium Chloride:	11,139	234
Sodium Bicarbonate:	0	0
Sodium Sulfate:	0	0
Sodium Chloride:	46,653	798

Remarks

Analyst:



Bachman Services, Inc.
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SCALE DEPOSITION POTENTIAL ANALYSIS

Company: JACK BOWLES

Sample Point: N/A

Source: WHITESIDE

Date Sampled: 2/3/2017

Well No: #1

Date Analyzed: 2/6/2017

Brine Composition

pH:	6.50	Ca, mg/L:	10.022	Total Hardness, mg/L:	36.800
Specific Gravity:	1.075	Mg, mg/L:	2.854	Total Dissolved Solids, mg/L:	85.879
HCO ₃ , mg/L:	348	Na, mg/L:	18.355	Total Ionic Strength:	1.904
Cl, mg/L:	54,000	Ba, mg/L:	0		
SO ₄ , mg/L:	300	Sr, mg/L:	0	Total Dissolved Iron, mg/L:	0.3

Calcium Carbonate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	40	180
Stiff-Davis Index:	0.272	0.559	0.912	1.393	0.000	1.993
Deposition, lbs/1,000 Bbls:	86.6	139.5	173.8	190.9	0.0	197.3

Calcium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	40	180
Supersaturation Ratio:	0.290	0.291	0.296	0.302	0.291	0.309
Deposition, lbs/1,000 Bbls:	0.0	0.0	0.0	0.0	0.0	0.0

Barium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	40	180
Supersaturation Ratio:	0.000	0.000	0.000	0.000	0.000	0.000
Deposition, lbs/1,000 Bbls:	0.0	0.0	0.0	0.0	0.0	0.0



SCALE DEPOSITION POTENTIAL TRENDS

Company: JACK BOWLES

Sample Point: N/A

Source: WHITESIDE

Date Sampled: 2/3/2017

Well No: #1

Date Analyzed: 2/6/2017

