

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form U3C
June 2015
Form must be Typed
Form must be completed
on a per well basis

**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 | _____ | _____ | _____ | _____ | _____ |



WATER ANALYSIS REPORT

Company: JACK BOWLES

Sample Point: Wellhead

Source: WHITESIDE

Date Sampled: 1/23/2019

Well No: #1

Date Analyzed: 2/1/2019

| | | | |
|---------------------------------|---------|--------------------------------|--------|
| pH: | 7.00 | Total Dissolved Solids (mg/L): | 78,731 |
| Dissolved H ₂ S: | 35.00 | Total Ionic Strength: | 2.067 |
| Dissolved CO ₂ : | 35.00 | Specific Gravity: | 1.075 |
| Resistivity @ 75°F(Ohm-Meters): | 0.08100 | Density, (lbs/gal): | 8.97 |

| Cations | mg/L | Meq/L | Anions | mg/L | Meq/L |
|-----------------------|--------|-------|-----------------|--------|-------|
| Calcium: | 4,061 | 203 | Carbonate: | 0 | 0 |
| Magnesium: | 10,898 | 893 | Bicarbonate: | 549 | 9 |
| Sodium: | 9,617 | 418 | Chloride: | 53,000 | 1,493 |
| Barium: | 6 | | Sulfate: | 600 | 13 |
| Strontium: | 0 | | Total Hardness: | 55,000 | |
| Total Dissolved Iron: | 0.00 | | | | |

PROBABLE MINERAL COMPOSITION

| | mg/L | Meq/L |
|------------------------|--------|-------|
| Calcium Bicarbonate: | 729 | 9 |
| Calcium Sulfate: | 851 | 13 |
| Calcium Chloride: | 10,075 | 182 |
| Magnesium Bicarbonate: | 0 | 0 |
| Magnesium Sulfate: | 0 | 0 |
| Magnesium Chloride: | 42,538 | 893 |
| Sodium Bicarbonate: | 0 | 0 |
| Sodium Sulfate: | 0 | 0 |
| Sodium Chloride: | 24,444 | 418 |

Remarks

Analyst:



SCALE DEPOSITION POTENTIAL ANALYSIS

Company: JACK BOWLES

Sample Point: Wellhead

Source: WHITESIDE

Date Sampled: 1/23/2019

Well No: #1

Date Analyzed: 2/1/2019

Brine Composition

| | | | | | |
|--------------------------|--------|-----------|--------|-------------------------------|--------|
| pH: | 7.00 | Ca, mg/L: | 4,061 | Total Hardness, mg/L: | 55,000 |
| Specific Gravity: | 1.075 | Mg, mg/L: | 10,898 | Total Dissolved Solids, mg/L: | 78,731 |
| HCO ₃ , mg/L: | 549 | Na, mg/L: | 9,617 | Total Ionic Strength: | 2.067 |
| Cl, mg/L: | 53,000 | Ba, mg/L: | 6 | Total Dissolved Iron, mg/L: | 0.0 |
| SO ₄ , mg/L: | 600 | Sr, mg/L: | 0 | | |

Calcium Carbonate Scale Indices

| | | | | | | |
|-----------------------------|-------|-------|-------|-------|------------------------|-------|
| | | | | | Specified Temperatures | |
| Temperature, °F: | 75 | 100 | 125 | 150 | 40 | 180 |
| Stiff-Davis Index: | 0.590 | 0.893 | 1.253 | 1.709 | 0.322 | 2.324 |
| Deposition, lbs/1,000 Bbls: | 225.9 | 268.4 | 294.1 | 308.0 | 149.2 | 313.2 |

Calcium Sulfate Scale Indices

| | | | | | | |
|-----------------------------|-------|-------|-------|-------|------------------------|-------|
| | | | | | Specified Temperatures | |
| Temperature, °F: | 75 | 100 | 125 | 150 | 40 | 180 |
| Supersaturation Ratio: | 0.262 | 0.263 | 0.267 | 0.271 | 0.264 | 0.276 |
| 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: | 16.860 | 12.079 | 8.707 | 6.142 | 29.015 | 4.143 |
| Deposition, lbs/1,000 Bbls: | 3.4 | 3.3 | 3.2 | 3.0 | 3.4 | 2.7 |



SCALE DEPOSITION POTENTIAL TRENDS

Company: JACK BOWLES

Source: WHITESIDE

Well No: #1

Sample Point: Wellhead

Date Sampled: 1/23/2019

Date Analyzed: 2/1/2019

