

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 | _____ | _____ | _____ | _____ | _____ |



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WATER ANALYSIS REPORT

Company: JACK BOWLES

Sample Point: Wellhead

Source: WHITESIDE SWD

Date Sampled: 1/25/2018

Well No: 1

Date Analyzed: 1/29/2018

| | | | |
|---------------------------------|---------|--------------------------------|--------|
| pH: | 7.00 | Total Dissolved Solids (mg/L): | 74,440 |
| Dissolved H ₂ S: | 40.00 | Total Ionic Strength: | 1.381 |
| Dissolved CO ₂ : | 75.00 | Specific Gravity: | 1.060 |
| Resistivity @ 75°F(Ohm-Meters): | 0.09250 | Density, (lbs/gal): | 8.84 |

| Cations | mg/L | Meq/L | Anions | mg/L | Meq/L |
|-----------------------|--------|-------|-----------------|--------|-------|
| Calcium: | 3,024 | 151 | Carbonate: | 0 | 0 |
| Magnesium: | 350 | 29 | Bicarbonate: | 665 | 11 |
| Sodium: | 25,195 | 1,095 | Chloride: | 44,000 | 1,239 |
| Barium: | 6 | | Sulfate: | 1,200 | 25 |
| Strontium: | 0 | | Total Hardness: | 9,000 | |
| Total Dissolved Iron: | 0.00 | | | | |

PROBABLE MINERAL COMPOSITION

| | mg/L | Meq/L |
|------------------------|--------|-------|
| Calcium Bicarbonate: | 883 | 11 |
| Calcium Sulfate: | 1,702 | 25 |
| Calcium Chloride: | 6,399 | 115 |
| Magnesium Bicarbonate: | 0 | 0 |
| Magnesium Sulfate: | 0 | 0 |
| Magnesium Chloride: | 1,366 | 29 |
| Sodium Bicarbonate: | 0 | 0 |
| Sodium Sulfate: | 0 | 0 |
| Sodium Chloride: | 64,040 | 1,095 |

Remarks

Analyst:



SCALE DEPOSITION POTENTIAL ANALYSIS

Company: JACK BOWLES
Source: WHITESIDE SWD
Well No: 1

Sample Point: Wellhead
Date Sampled: 1/25/2018
Date Analyzed: 1/29/2018

Brine Composition

| | | | | | |
|--------------------------|--------|-----------|--------|-------------------------------|--------|
| pH: | 7.00 | Ca, mg/L: | 3,024 | Total Hardness, mg/L: | 9,000 |
| Specific Gravity: | 1.060 | Mg, mg/L: | 350 | Total Dissolved Solids, mg/L: | 74,440 |
| HCO ₃ , mg/L: | 665 | Na, mg/L: | 25,195 | Total Ionic Strength: | 1.381 |
| Cl, mg/L: | 44,000 | Ba, mg/L: | 6 | Total Dissolved Iron, mg/L: | 0.0 |
| SO ₄ , mg/L: | 1,200 | Sr, mg/L: | 0 | | |

Calcium Carbonate Scale Indices

| | | | | | | |
|-----------------------------|-------|-------|-------|-------|------------------------|-------|
| Temperature, °F: | 75 | 100 | 125 | 150 | Specified Temperatures | |
| Stiff-Davis Index: | 0.441 | 0.718 | 1.095 | 1.584 | 40 | 180 |
| Deposition, lbs/1,000 Bbls: | 229.1 | 299.5 | 346.1 | 369.8 | 0.182 | 2.172 |
| | | | | | 100.3 | 378.4 |

Calcium Sulfate Scale Indices

| | | | | | | |
|-----------------------------|-------|-------|-------|-------|------------------------|-------|
| Temperature, °F: | 75 | 100 | 125 | 150 | Specified Temperatures | |
| Supersaturation Ratio: | 0.477 | 0.478 | 0.485 | 0.494 | 40 | 180 |
| Deposition, lbs/1,000 Bbls: | 0.0 | 0.0 | 0.0 | 0.0 | 0.480 | 0.510 |
| | | | | | 0.0 | 0.0 |

Barium Sulfate Scale Indices

| | | | | | | |
|-----------------------------|--------|--------|--------|--------|------------------------|--------|
| Temperature, °F: | 75 | 100 | 125 | 150 | Specified Temperatures | |
| Supersaturation Ratio: | 46.722 | 42.564 | 28.813 | 19.288 | 40 | 180 |
| Deposition, lbs/1,000 Bbls: | 3.5 | 3.5 | 3.4 | 3.4 | 79.841 | 12.886 |
| | | | | | 3.5 | 3.3 |



SCALE DEPOSITION POTENTIAL TRENDS

Company: JACK BOWLES

Sample Point: Wellhead

Source: WHITESIDE SWD

Date Sampled: 1/25/2018

Well No: 1

Date Analyzed: 1/29/2018

