

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	_____	_____	_____	_____	_____
	<b>TOTAL</b>	_____	_____	_____	_____	_____

## Complete Water Analysis

Customer: **SHAKESPEARE OIL COMPANY**  
 Formation Zone:  
 Geographic Region: **Kansas**  
 Geographic Location: **Lane County**  
 System Description: **Production System**

Equipment Description: **Snider 1 SWD**  
 Sample Point: **Bleeder**  
 Customer ID:  
 Latitude/Longitude: **0.00, 0.00**  
 Account Rep: **Michael.walters@championx.com**

Collect Date: **02/20/2024**  
 Submit Date: **02/20/2024**  
 Report Date: **02/22/2024**  
 Sample ID: **AX37098**  
 Location Code: **430654**

Field Analysis		
Analysis	Result	Analysis Method
Total Alkalinity (M-Alk as HCO3)	171 mg/L	Titration
Dissolved CO2	250 mg/L	Titration
Dissolved H2S	100 mg/L	Titration
Pressure Surface	25 psi	
Temperature	100 °F	
pH of Water	7.5	Meter

Sample Analysis		
Analysis	Result	Analysis Method
Specific Gravity	1.055	Densitometer
Ionic Strength	1.14 mol/L	Calculation
Total Dissolved Solids	64600 mg/L	Calculation
Calculated pH	7.50	Calculation
Calculated CO2 in the gas	0.0100 %	Calculation

Cations - Analyzed By ICP					
Iron	<0.500 mg/L	Boron	21.0 mg/L	Silicon	7.30 mg/L
Manganese	<0.200 mg/L	Lithium	4.59 mg/L	Aluminum	<0.400 mg/L
Barium	0.116 mg/L	Copper	<0.200 mg/L	Molybdenum	<0.200 mg/L
Strontium	39.6 mg/L	Nickel	<0.200 mg/L	Phosphorus	<0.500 mg/L
Calcium	1140 mg/L	Zinc	0.713 mg/L	Measured Sodium	18600 mg/L
Magnesium	399 mg/L	Lead	<0.500 mg/L		
Sodium	18600 mg/L	Cobalt	<0.500 mg/L		
Potassium	282 mg/L	Chromium	<0.100 mg/L		

Anions - Analyzed by IC*					
Chloride	39900 mg/L	Bromide	Not Detected mg/L	Sulfate	4020 mg/L

PTB								
	Anhydrite	Barite	Calcite	Celestite	Gypsum	Halite	Iron Carbonate	Iron Sulfide
50°	0.00	0.06	0.00	4.73	0.00	0.00	0.00	0.00
75°	0.00	0.05	0.00	4.23	0.00	0.00	0.00	0.00
100°	0.00	0.04	0.00	5.25	0.00	0.00	0.00	0.00
125°	0.00	0.03	0.00	7.17	0.00	0.00	0.00	0.00
150°	0.00	0.01	0.00	9.54	0.00	0.00	0.00	0.00
175°	239.53	0.00	0.00	12.02	0.00	0.00	0.00	0.00
200°	432.30	0.00	0.00	14.41	0.00	0.00	0.00	0.00
225°	587.91	0.00	0.00	16.60	0.00	0.00	0.00	0.00
250°	715.17	0.00	0.00	18.53	0.00	0.00	0.00	0.00
275°	820.27	0.00	0.00	20.21	0.00	0.00	0.00	0.00
300°	907.96	0.00	0.00	21.64	0.00	0.00	0.00	0.00
325°	981.77	0.00	0.00	22.85	0.00	0.00	0.00	0.00
350°	1,044.29	0.00	0.00	23.86	0.00	0.00	0.00	0.00
375°	1,097.37	0.00	0.00	24.69	154.09	0.00	0.00	0.00
400°	1,142.31	0.00	0.64	25.37	598.00	0.00	0.00	0.00

SI						
	Anhydrite	Barite	Calcite	Celestite	Gypsum	Halite
50°	-0.70	0.84	-0.38	0.08	-0.10	-1.95
75°	-0.50	0.59	-0.39	0.07	-0.13	-1.98
100°	-0.32	0.38	-0.40	0.09	-0.12	-2.00
125°	-0.15	0.21	-0.40	0.12	-0.11	-2.02
150°	0.00	0.08	-0.40	0.17	-0.10	-2.02
175°	0.14	-0.03	-0.39	0.23	-0.09	-2.03
200°	0.27	-0.11	-0.37	0.23	-0.10	-2.02
225°	0.40	-0.17	-0.35	0.37	-0.12	-2.02
250°	0.52	-0.23	-0.31	0.44	-0.14	-2.01
275°	0.63	-0.27	-0.27	0.52	-0.16	-2.00
300°	0.74	-0.31	-0.22	0.59	-0.17	-1.98
325°	0.85	-0.34	-0.16	0.67	-0.14	-1.96
350°	0.96	-0.38	-0.09	0.75	-0.07	-1.94
375°	1.06	-0.41	-0.02	0.82	0.07	-1.92
400°	1.17	-0.46	0.07	0.90	0.30	-1.88

**Comments**

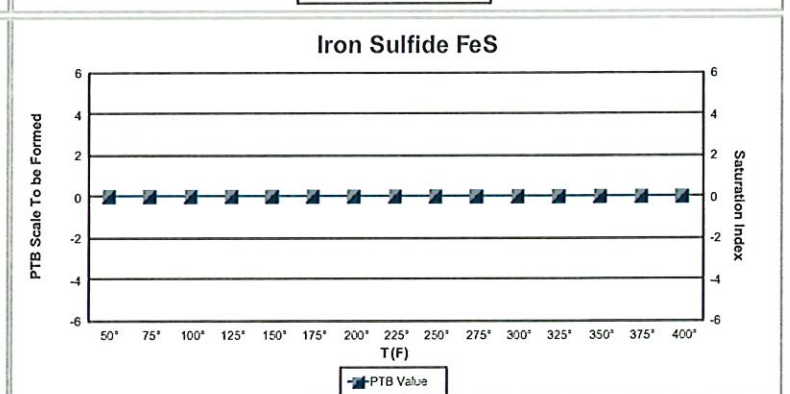
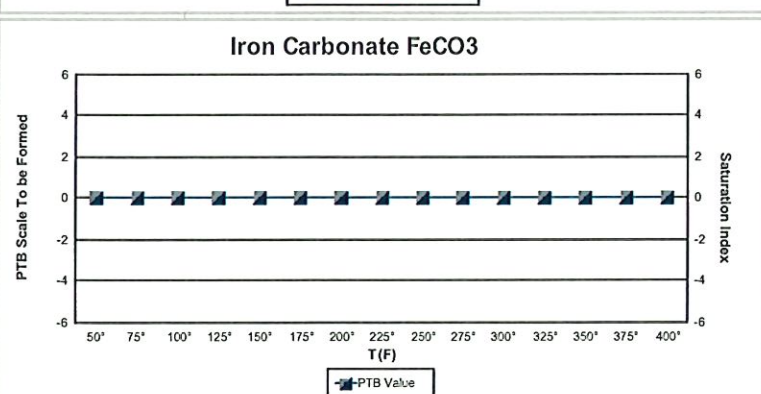
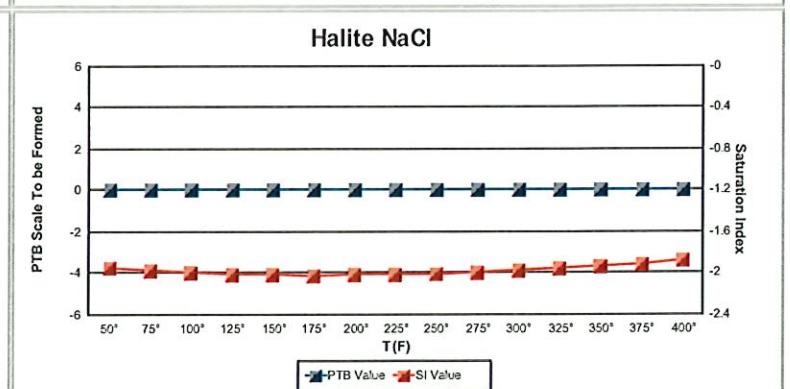
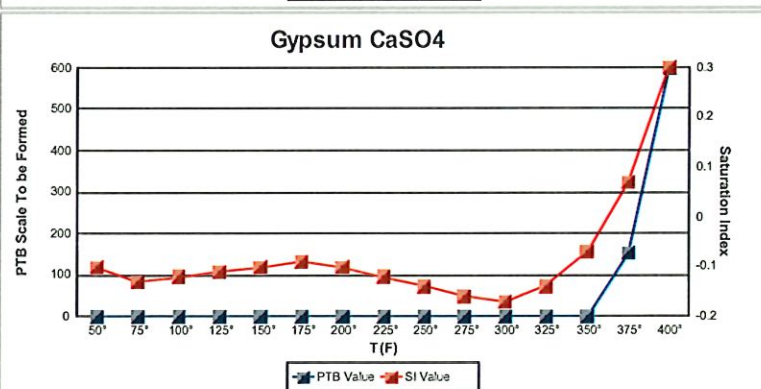
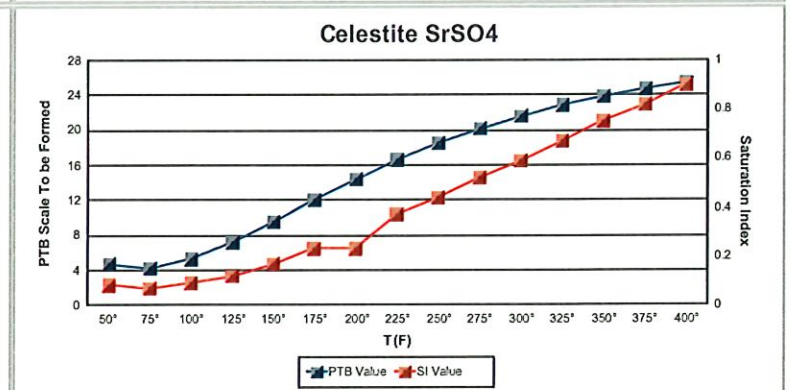
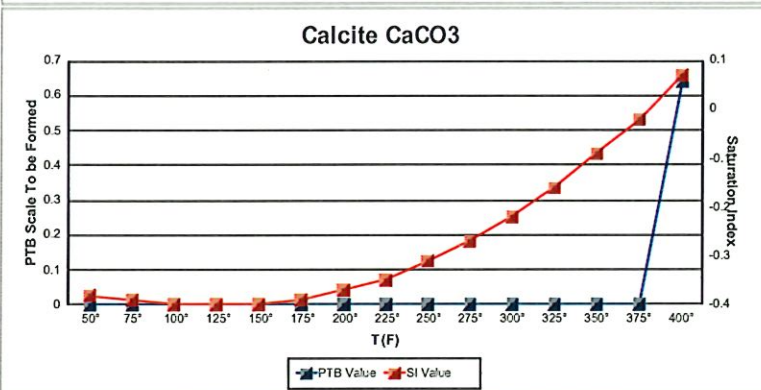
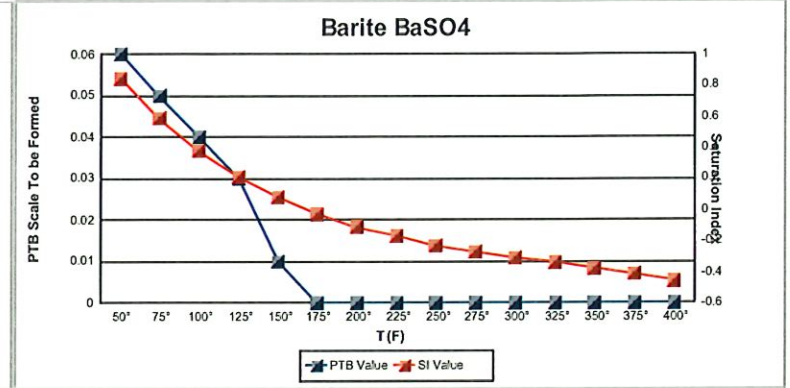
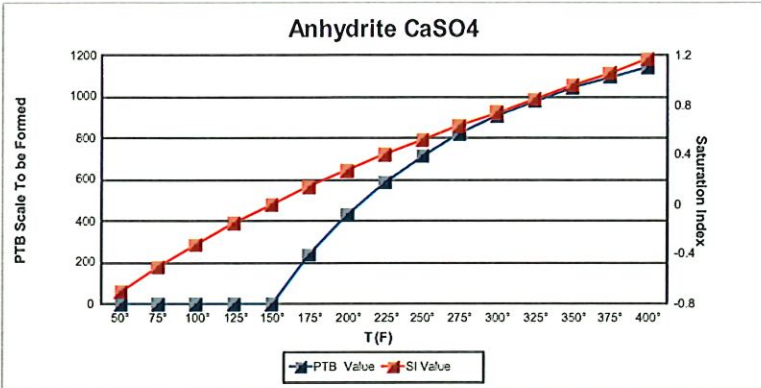
Scaling predictions calculated using Scale Soft Pitzer 2019  
 Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.

## Complete Water Analysis

Customer: **SHAKESPEARE OIL COMPANY**  
 Formation Zone:  
 Geographic Region: **Kansas**  
 Geographic Location: **Lane County**  
 System Description: **Production System**

Equipment Description: **Snider 1 SWD**  
 Sample Point: **Bleeder**  
 Customer ID:  
 Latitude/Longitude: **0.00, 0.00**  
 Account Rep: **Michael.walters@championx.com**

Collect Date: **02/20/2024**  
 Submit Date: **02/20/2024**  
 Report Date: **02/22/2024**  
 Sample ID: **AX37098**  
 Location Code: **430654**



Scaling predictions calculated using Scale Soft Pitzer 2019

Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.