

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	_____	_____	_____	_____	_____

Complete Water Analysis

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

Equipment Description: **Schoepf 2-15 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: **AX37082**
 Location Code: **430658**

Field Analysis

Analysis	Result	Analysis Method
Total Alkalinity (M-Alk as HCO3)	151 mg/L	Titration
Dissolved CO2	190 mg/L	Titration
Dissolved H2S	66 mg/L	Titration
Pressure Surface	25 psi	
Temperature	100 ° F	
pH of Water	7.5	Meter

Sample Analysis

Analysis	Result	Analysis Method
Specific Gravity	1.041	Densitometer
Ionic Strength	0.800 mol/L	Calculation
Total Dissolved Solids	44400 mg/L	Calculation
Calculated pH	7.50	Calculation
Calculated CO2 in the gas	0.0700 %	Calculation

Cations - Analyzed By ICP

Iron	0.877 mg/L	Boron	18.9 mg/L	Silicon	7.97 mg/L
Manganese	0.372 mg/L	Lithium	3.96 mg/L	Aluminum	<0.400 mg/L
Barium	0.115 mg/L	Copper	<0.200 mg/L	Molybdenum	<0.200 mg/L
Strontium	29.9 mg/L	Nickel	<0.200 mg/L	Phosphorus	<0.500 mg/L
Calcium	808 mg/L	Zinc	<0.400 mg/L	Measured Sodium	13500 mg/L
Magnesium	307 mg/L	Lead	<0.500 mg/L		
Sodium	13500 mg/L	Cobalt	<0.500 mg/L		
Potassium	196 mg/L	Chromium	<0.100 mg/L		

Anions - Analyzed by IC*

Chloride	25500 mg/L	Bromide	23.7 mg/L	Sulfate	3880 mg/L
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PTB

	Anhydrite	Barite	Calcite	Celestite	Gypsum	Halite	Iron Carbonate	Iron Sulfide
50°	0.00	0.06	1.16	1.86	0.00	0.00	0.00	0.48
75°	0.00	0.05	1.28	1.16	0.00	0.00	0.00	0.48
100°	0.00	0.05	1.62	1.83	0.00	0.00	0.00	0.47
125°	0.00	0.04	2.20	3.37	0.00	0.00	0.00	0.47
150°	0.00	0.02	2.98	5.35	0.00	0.00	0.00	0.47
175°	88.65	0.01	3.92	7.48	0.00	0.00	0.00	0.47
200°	259.79	0.00	4.97	9.57	0.00	0.00	0.00	0.47
225°	396.34	0.00	6.08	11.50	0.00	0.00	0.00	0.47
250°	506.29	0.00	7.22	13.22	0.00	0.00	0.00	0.47
275°	595.30	0.00	8.37	14.71	0.00	0.00	0.00	0.47
300°	667.73	0.00	9.53	15.97	0.00	0.00	0.00	0.47
325°	726.87	0.00	10.71	17.04	0.00	0.00	0.00	0.48
350°	775.17	0.00	11.91	17.92	0.00	0.00	0.00	0.48
375°	814.51	0.00	13.16	18.64	118.40	0.00	0.00	0.48
400°	846.33	0.00	14.46	19.21	481.63	0.00	0.00	0.48

SI

	Anhydrite	Barite	Calcite	Celestite	Gypsum	Halite	Iron Carbonate	Iron Sulfide
50°	-0.79	0.95	0.04	0.04	-0.18	-2.28	-1.56	2.19
75°	-0.58	0.70	0.05	0.02	-0.20	-2.31	-1.44	1.91
100°	-0.40	0.48	0.06	0.04	-0.20	-2.34	-1.34	1.71
125°	-0.24	0.31	0.09	0.07	-0.18	-2.35	-1.24	1.58
150°	-0.08	0.18	0.13	0.12	-0.17	-2.36	-1.14	1.51
175°	0.06	0.07	0.17	0.18	-0.16	-2.36	-1.06	1.47
200°	0.20	-0.01	0.23	0.18	-0.16	-2.36	-0.98	1.48
225°	0.33	-0.07	0.30	0.32	-0.17	-2.35	-0.91	1.51
250°	0.46	-0.11	0.38	0.40	-0.19	-2.34	-0.85	1.57
275°	0.58	-0.15	0.46	0.48	-0.20	-2.32	-0.79	1.64
300°	0.70	-0.18	0.55	0.57	-0.20	-2.30	-0.75	1.73
325°	0.82	-0.20	0.64	0.65	-0.17	-2.28	-0.73	1.82
350°	0.94	-0.23	0.72	0.74	-0.09	-2.25	-0.71	1.93
375°	1.05	-0.25	0.81	0.82	0.07	-2.22	-0.71	2.04
400°	1.17	-0.28	0.90	0.90	0.31	-2.18	-0.73	2.15

Comments

Scaling predictions calculated using Scale Soft Pitzer 2019

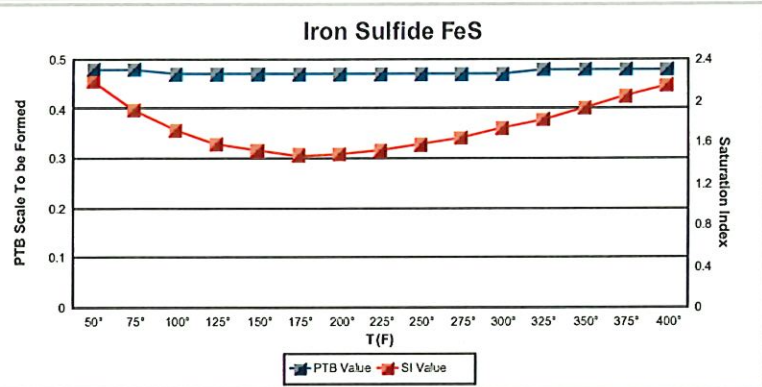
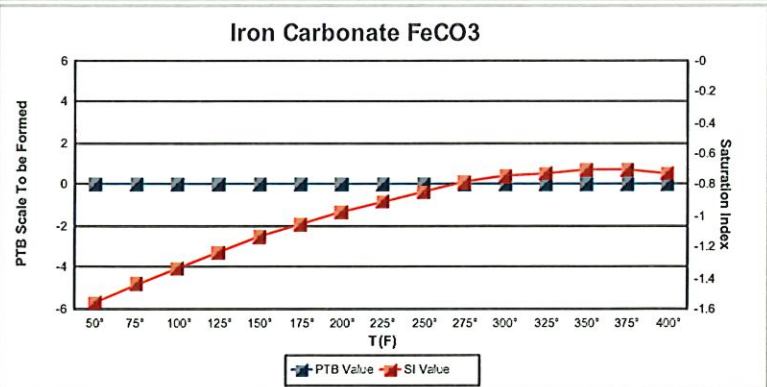
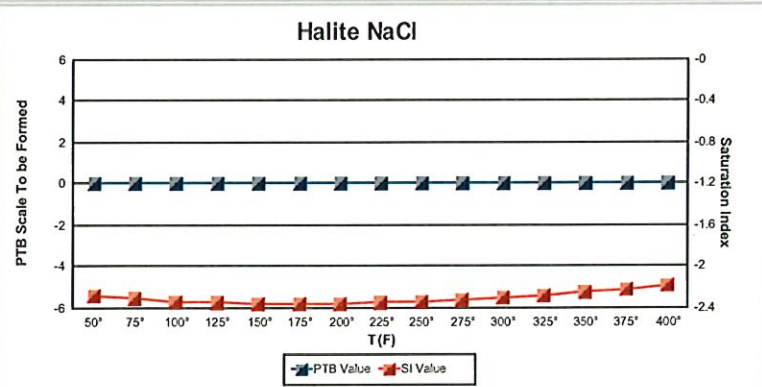
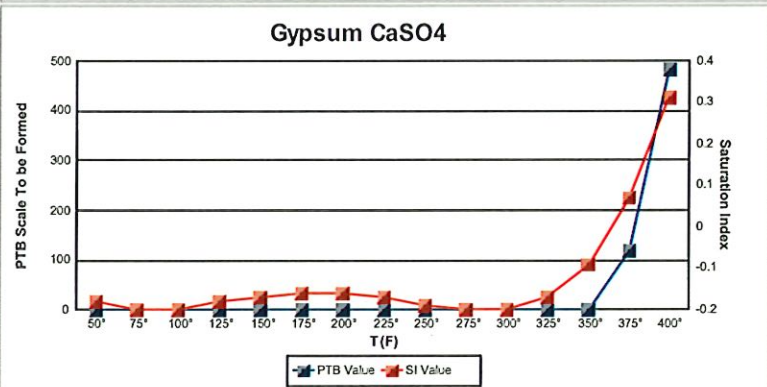
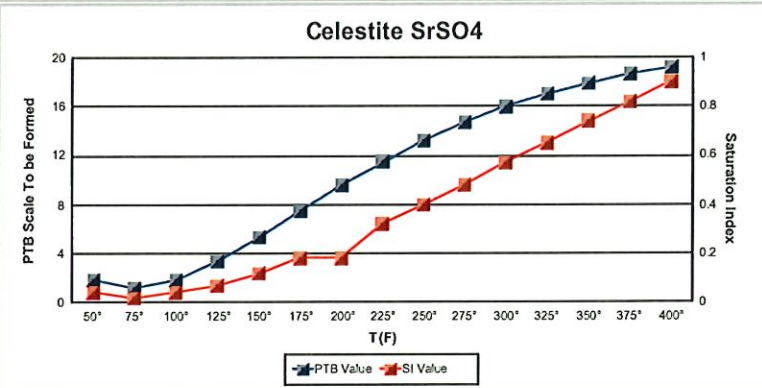
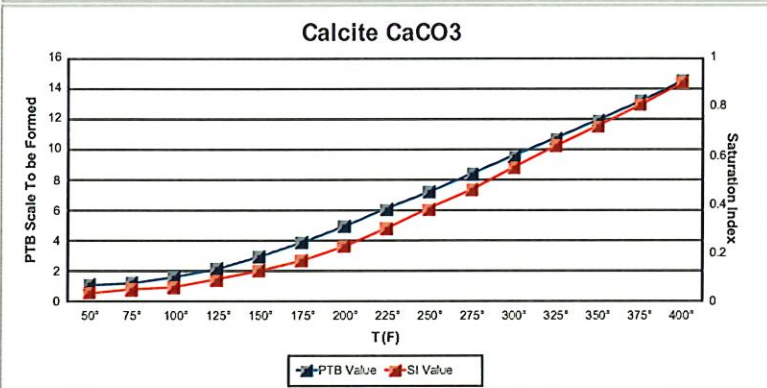
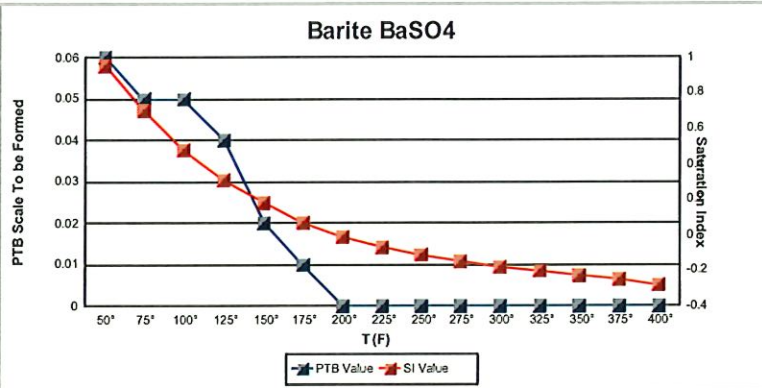
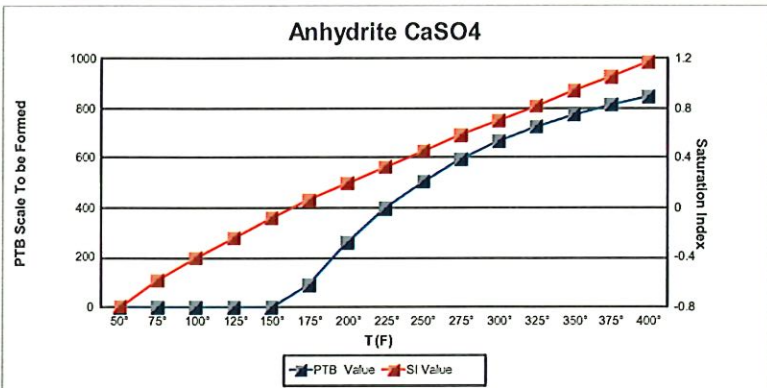
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Complete Water Analysis

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 Geographic Location: Lane County
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Equipment Description: Schoepf 2-15 SWD
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