

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: **Scott County**
 System Description: **Disposal**

Equipment Description: **Strickert 2 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: **AX37076**
 Location Code: **514621**

Field Analysis		
Analysis	Result	Analysis Method
Total Alkalinity (M-Alk as HCO3)	244 mg/L	Titration
Dissolved CO2	190 mg/L	Titration
Dissolved H2S	58 mg/L	Titration
Pressure Surface	25 psi	
Temperature	100 ° F	
pH of Water	7.5	Meter

Sample Analysis		
Analysis	Result	Analysis Method
Specific Gravity	1.028	Densitometer
Ionic Strength	0.540 mol/L	Calculation
Total Dissolved Solids	28900 mg/L	Calculation
Calculated pH	7.50	Calculation
Calculated CO2 in the gas	0.260 %	Calculation

Cations - Analyzed By ICP

Iron	5.92 mg/L	Boron	12.2 mg/L	Silicon	10.5 mg/L
Manganese	<0.200 mg/L	Lithium	8.57 mg/L	Aluminum	<0.400 mg/L
Barium	<0.100 mg/L	Copper	<0.200 mg/L	Molybdenum	<0.200 mg/L
Strontium	32.3 mg/L	Nickel	<0.200 mg/L	Phosphorus	<0.500 mg/L
Calcium	972 mg/L	Zinc	<0.400 mg/L	Measured Sodium	8450 mg/L
Magnesium	281 mg/L	Lead	<0.500 mg/L		
Sodium	8450 mg/L	Cobalt	<0.500 mg/L		
Potassium	169 mg/L	Chromium	<0.100 mg/L		

Anions - Analyzed by IC*

Chloride	16100 mg/L	Bromide	26.8 mg/L	Sulfate	2550 mg/L
----------	------------	---------	-----------	---------	-----------

PTB								
	Anhydrite	Barite	Calcite	Celestite	Gypsum	Halite	Iron Carbonate	Iron Sulfide
50°	0.00	0.00	24.44	1.47	0.00	0.00	0.00	3.26
75°	0.00	0.00	26.36	0.21	0.00	0.00	0.00	3.26
100°	0.00	0.00	28.53	0.63	0.00	0.00	0.33	3.25
125°	0.00	0.00	30.83	2.15	0.00	0.00	1.37	3.25
150°	0.00	0.00	33.18	4.31	0.00	0.00	2.14	3.25
175°	110.53	0.00	35.49	6.72	0.00	0.00	2.71	3.25
200°	274.53	0.00	37.73	9.14	0.00	0.00	3.12	3.25
225°	409.27	0.00	39.87	11.42	0.00	0.00	3.41	3.26
250°	521.51	0.00	41.91	13.48	0.00	0.00	3.62	3.26
275°	616.03	0.00	43.86	15.28	0.00	0.00	3.76	3.26
300°	696.49	0.00	45.75	16.82	0.00	0.00	3.86	3.26
325°	765.63	0.00	47.60	18.11	0.00	0.00	3.93	3.26
350°	825.46	0.00	49.43	19.17	0.00	0.00	3.97	3.26
375°	877.45	0.00	51.26	20.03	240.82	0.00	4.00	3.26
400°	922.63	0.00	53.09	20.72	574.15	0.00	4.01	3.27

SI							
	Anhydrite	Calcite	Celestite	Gypsum	Halite	Iron Carbonate	Iron Sulfide
50°	-0.76	0.58	0.03	-0.15	-2.65	-0.27	2.88
75°	-0.57	0.62	0.00	-0.17	-2.69	-0.11	2.66
100°	-0.39	0.68	0.01	-0.17	-2.72	0.04	2.52
125°	-0.22	0.76	0.04	-0.16	-2.74	0.19	2.45
150°	-0.06	0.86	0.09	-0.14	-2.75	0.34	2.43
175°	0.08	0.97	0.15	-0.13	-2.75	0.48	2.45
200°	0.22	1.09	0.15	-0.13	-2.74	0.62	2.51
225°	0.36	1.21	0.29	-0.14	-2.73	0.75	2.59
250°	0.49	1.35	0.37	-0.15	-2.72	0.87	2.69
275°	0.62	1.49	0.45	-0.16	-2.70	0.98	2.80
300°	0.75	1.62	0.54	-0.15	-2.67	1.07	2.93
325°	0.87	1.75	0.63	-0.11	-2.65	1.14	3.05
350°	1.00	1.88	0.72	-0.01	-2.61	1.19	3.18
375°	1.13	2.00	0.81	0.15	-2.58	1.23	3.32
400°	1.26	2.12	0.90	0.41	-2.53	1.24	3.45

Comments

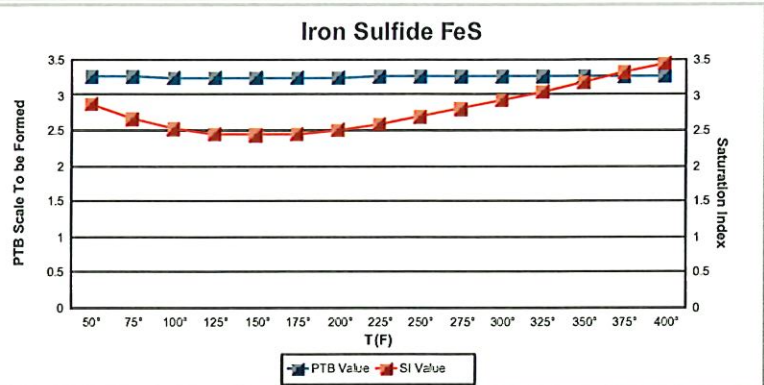
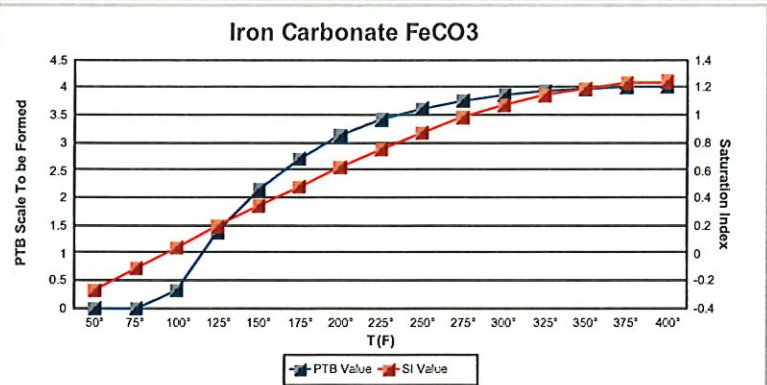
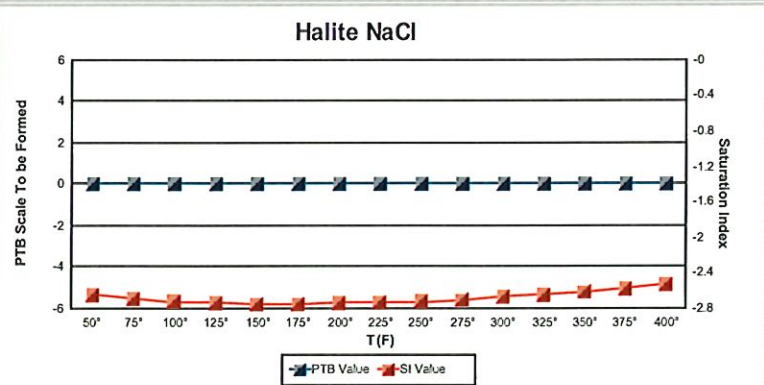
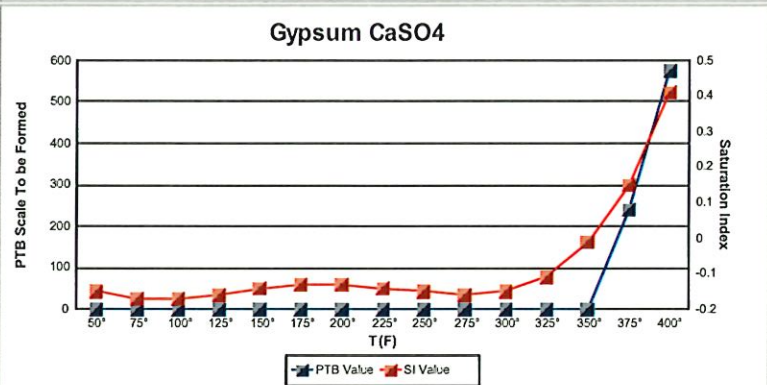
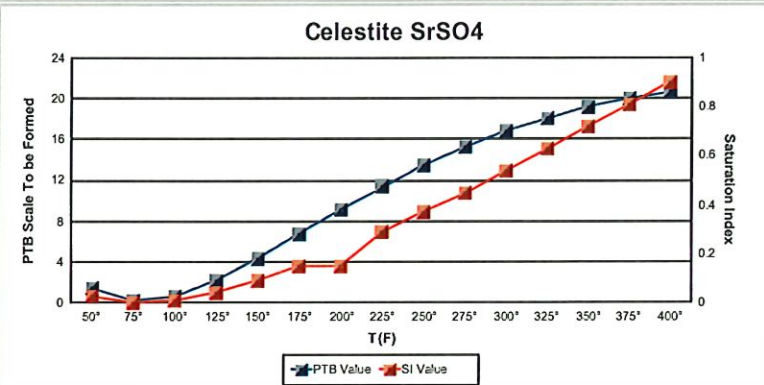
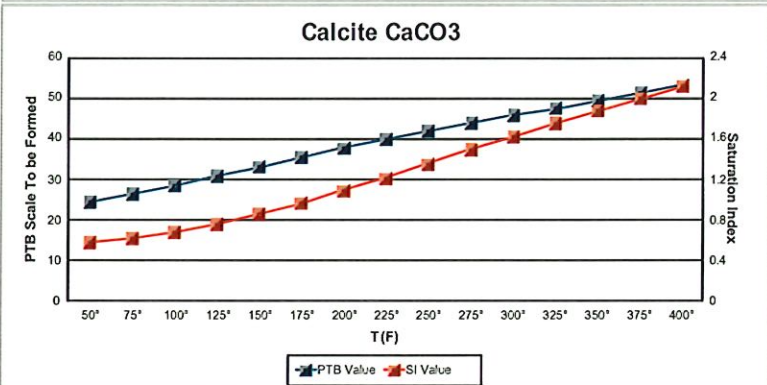
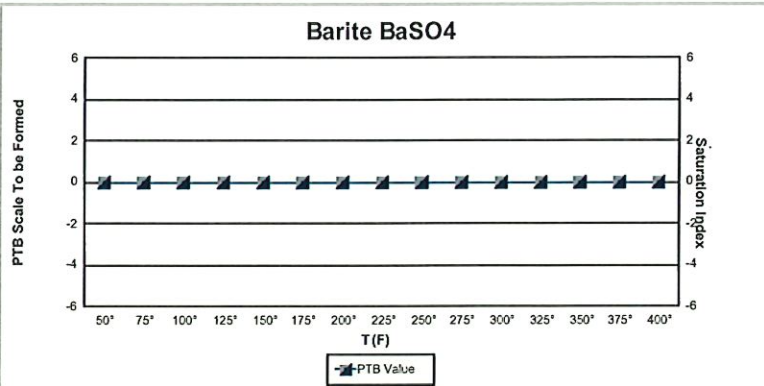
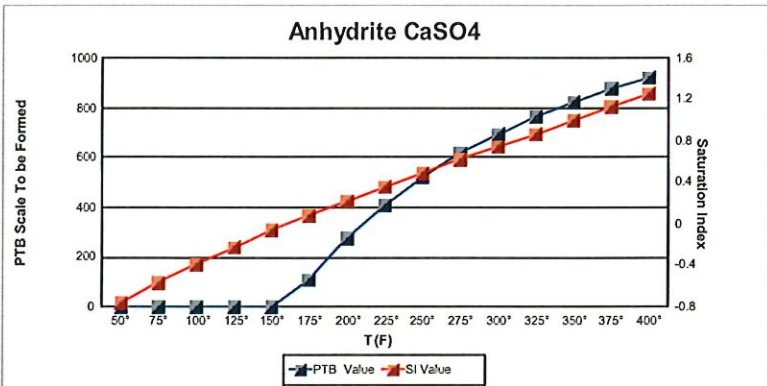
Scaling predictions calculated using Scale Soft Pitzer 2019
 Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.

Complete Water Analysis

Customer: SHAKESPEARE OIL COMPANY
 Formation Zone:
 Geographic Region: Kansas
 Geographic Location: Scott County
 System Description: Disposal

Equipment Description: Strickert 2 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: AX37076
 Location Code: 514621



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.