KOLAR Document ID: 1749356

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 # 34992
Name: Fossil Energy, LLC
Address 1: 111 CINDY DRIVE
Address 2:
City: RUSSELL State: KS Zip: 67665 + 3401
Contact Person: Steve Krug
Phone: (785) 483-1433
Lease Name: SIEFERS B
Well Number: 2

API No.: 15-009-23089-00-01
Permit No: D23248.0
Reporting Year: 2023
(January 1 to December 31)

____ - SE - NW - NW Sec. 2 Twp. 16 S. R. 12 ☐ E ☑ W
(Q/Q/Q/Q)
4321 feet from ☐ N / ☑ S Line of Section
4345 feet from ☑ E / ☐ W Line of Section
County: Barton

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: 0 psi Injection Zone: REAGAN
Maximum Authorized Injection Rate: 500 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	2782	0			31
February	2513	0			28
March	2782	0			31
April	2692	0			30
May	2782	0			31
June	2692	0			30
July	2782	0			31
August	2782	0			31
September	2692	0			30
October	2782	0			31
November	2692				30
December	2782	0			31
TOTAL	32755		0		

Submitted Electronically

BAKER HUGHES

Baker Hughes
1625
Plainville Kansas 67663

Report Date: 2/2/2024

Complete Water Analysis Report SSP v.8

Customer:	Fossil Energy	Sample Date:	2/2/2024
District:	Dubuque Kansas	Log Out Date:	2/2/2024
Area:	Dubuque Kansas	Sample ID:	Seifers #2 Water Tank Analysis
Lease:	Seifers	Analyst:	Bill Foster
Sample Point Name	Seifers #2 Water Analysis	Chemical Used:	
Sales Rep:	Sales Rep	Comments:	

Fossil Energy, Seifers , Seifers #2 Water Analysis

Field Data	
Initial Temperature (°F):	140
Final Temperature (°F):	70
Initial Pressure (psi):	15
Final Pressure (psi):	15
pH:	
pH at time of sampling:	7.0
pH at time of analysis:	NA
pH used in Calcs:	7.0

Alkalinity by Titration:	mg/L	meq/L
Bicarbonate (HCO_3^-):	410	6.7
Carbonate (CO_3^{2-}):	0	0.0
Hydroxide (OH^-):	0	0.0

aqueous CO_2 (ppm):	0.0
aqueous H_2S (ppm):	0.0
aqueous O_2 (ppb):	0.0
Calculated TDS (mg/L):	37090
Density/Specific Gravity (g/cm^3):	1.0250
Measured Density/Specific Gravity	1
Conductivity (µmhos):	0
MCF/D:	0
BOPD:	0
BWPD:	0

Analysis of Sample — Anions:	mg/L	meq/L
Chloride (Cl^-):	22500	633.8
Sulfate (SO_4^{2-}):	90	1.9
Borate (H_3BO_3):	0.0	0.0
Fluoride (F^-):	0.0	0.0
Bromide (Br^-):	0.0	0.0
Nitrite (NO_2^-):	0.0	0.0
Nitrate (NO_3^-):	0.0	0.0
Phosphate (PO_4^{3-}):	0.0	0.0
Silica (SiO_2):	0.0	0.0

Organic Acids:	mg/L	meq/L
Formate:	0.0	0.0
Acetate:	0.0	0.0
Propionate:	0.0	0.0
Butyrate:	0.0	0.0
Valerate:	0.0	0.0

Anion/Cation Ratio: 1.01

Cations:	mg/L	meq/L
Sodium (Na^+):	12390	541.0
Potassium (K^+):	0	0.0
Magnesium (Mg^{2+}):	375	30.9
Calcium (Ca^{2+}):	1325	66.1
Strontium (Sr^{2+}):	0	0.0
Barium (Ba^{2+}):	0.0	0.0
Iron (Fe^{2+}):	0.0	0.0
Manganese (Mn^{2+}):	0.00	0.0
Lead (Pb^{2+}):	0.00	0.0
Zinc (Zn^{2+}):	0.0	0.0
Aluminum (Al^{3+}):	0.0	0.0
Chromium (Cr^{3+}):	0.0	0.0
Cobalt (Co^{2+}):	0.0	0.0
Copper (Cu^{2+}):	0.0	0.0
Molybdenum (Mo^{2+}):	0.0	0.0
Nickel (Ni^{2+}):	0.0	0.0
Tin (Sn^{2+}):	0.0	0.0
Titanium (Ti^{2+}):	0.0	0.0
Vanadium (V^{2+}):	0.0	0.0
Zirconium (Zr^{2+}):	0.0	0.0
Total Hardness:	0	N/A

Conditions		Barite ($BaSO_4$)		Calcite ($CaCO_3$)		Gypsum ($CaSO_4 \cdot 2H_2O$)		Anhydrite ($CaSO_4$)	
Temp	Press.	Index	Amt (PTB)	Index	Amt (PTB)	Index	Amount	Index	Amt (PTB)
70°F	15 psi		0.000	0.69	50.864	-1.53	0.000	-1.80	0.000
78°F	15 psi		0.000	0.76	54.904	-1.53	0.000	-1.77	0.000
86°F	15 psi		0.000	0.82	58.760	-1.53	0.000	-1.74	0.000
93°F	15 psi		0.000	0.89	62.432	-1.53	0.000	-1.71	0.000
101°F	15 psi		0.000	0.95	65.919	-1.53	0.000	-1.67	0.000
109°F	15 psi		0.000	1.02	69.223	-1.53	0.000	-1.63	0.000
117°F	15 psi		0.000	1.08	72.348	-1.52	0.000	-1.60	0.000
124°F	15 psi		0.000	1.15	75.299	-1.52	0.000	-1.55	0.000
132°F	15 psi		0.000	1.21	78.080	-1.51	0.000	-1.51	0.000
140°F	15 psi		0.000	1.28	80.700	-1.50	0.000	-1.47	0.000

Conditions		Celestite ($SrSO_4$)		Halite (NaCl)		Iron Sulfide (FeS)		Iron Carbonate ($FeCO_3$)	
Temp	Press.	Index	Amt (PTB)	Index	Amt (PTB)	Index	Amt (PTB)	Index	Amt (PTB)
70°F	15 psi		0.000	-2.37	0.000	0	0.000		0.000
78°F	15 psi		0.000	-2.39	0.000	0	0.000		0.000
86°F	15 psi		0.000	-2.39	0.000	0	0.000		0.000
93°F	15 psi		0.000	-2.40	0.000	0	0.000		0.000
101°F	15 psi		0.000	-2.41	0.000	0	0.000		0.000
109°F	15 psi		0.000	-2.42	0.000	0	0.000		0.000
117°F	15 psi		0.000	-2.42	0.000	0	0.000		0.000
124°F	15 psi		0.000	-2.43	0.000	0	0.000		0.000
132°F	15 psi		0.000	-2.43	0.000	0	0.000		0.000
140°F	15 psi		0.000	-2.43	0.000	0	0.000		0.000

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the eight (8) scales.

Note 3: Saturation Index predictions on this sheet use pH and alkalinity; $\%CO_2$ is not included in the calculations.

Calculate

EESI ® ScaleSoftPitzer™ SSP2010

Sample ID: Seifers #2 Water Tank Analysis Fossil Energy, Seifers , Seifers #2 Water Analysis