



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	_____	_____	_____	_____	_____



Central Area Laboratory
801 N. Morgan,
Oklahoma City, Oklahoma 73127

REPORT DATE: 2/25/2016

COMPLETE WATER ANALYSIS REPORT SSP v.2010

CUSTOMER: GREAT PLAINS
DISTRICT: KANSAS
AREA/LEASE: FLAX
SAMPLE POINT NAME: FLAX #1 SWD
SITE TYPE: FACILITY
SAMPLE POINT DESCRIPTION: NOT PROVIDED

ACCOUNT REP: GREG POLLNOW
SAMPLE ID: 201610002408
SAMPLE DATE: 2/15/2016
ANALYSIS DATE: 2/25/2016
ANALYST: BS

GREAT PLAINS, FLAX, FLAX #1 SWD

FIELD DATA			ANALYSIS OF SAMPLE											
			ANIONS:		mg/L		meq/L		CATIONS:		mg/L		meq/L	
Initial Temperature (°F):	125		Chloride (Cl ⁻):	21700.0	612.1	Sodium (Na ⁺):	11232.1	488.8						
Final Temperature (°F):	45		Sulfate (SO ₄ ²⁻):	1969.0	41.0	Potassium (K ⁺):	222.6	5.7						
Initial Pressure (psi):	100		Borate (H ₃ BO ₃):	77.7		Magnesium (Mg ²⁺):	469.7	38.7						
Final Pressure (psi):	15		Fluoride (F ⁻):	ND		Calcium (Ca ²⁺):	1672.3	83.4						
			Bromide (Br ⁻):	ND		Strontium (Sr ²⁺):	52.3	1.2						
pH:			Nitrite (NO ₂ ⁻):	ND		Barium (Ba ²⁺):	0.0	0.0						
pH at time of sampling:	6.1		Nitrate (NO ₃ ⁻):	ND		Iron (Fe ²⁺):	4.8	0.2						
			Phosphate (PO ₄ ³⁻):	0.0		Manganese (Mn ²⁺):	0.3	0.0						
			Silica (SiO ₂):	ND		Lead (Pb ²⁺):	ND							
						Zinc (Zn ²⁺):	1.4	0.0						
ALKALINITY BY TITRATION:			mg/L		meq/L									
Bicarbonate (HCO ₃ ⁻):	457.0	7.5												
Carbonate (CO ₃ ²⁻):	ND													
Hydroxide (OH ⁻):	ND													
			ORGANIC ACIDS:		mg/L		meq/L							
aqueous CO ₂ (ppm):	20.0		Formic Acid:	ND					Aluminum (Al ³⁺):	ND				
aqueous H ₂ S (ppm):	0.0		Acetic Acid:	ND				Chromium (Cr ³⁺):	ND					
aqueous O ₂ (ppb):	ND		Propionic Acid:	ND				Cobalt (Co ²⁺):	ND					
			Butyric Acid:	ND				Copper (Cu ²⁺):	ND					
			Valeric Acid:	ND				Molybdenum (Mo ²⁺):	ND					
Calculated TDS (mg/L):	37859							Nickel (Ni ²⁺):	ND					
Density/Specific Gravity (g/cm ³):	1.0236							Tin (Sn ²⁺):	ND					
Measured Specific Gravity	1.0350							Titanium (Ti ²⁺):	ND					
Conductivity (mmhos):	ND							Vanadium (V ²⁺):	ND					
Resistivity:	ND							Zirconium (Zr ²⁺):	ND					
MCF/D:	No Data							Total Hardness:	6176					N/A
BOPD:	No Data													
BWPD:	No Data													
			Anion/Cation Ratio:		1.07				ND = Not Determined					

SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.

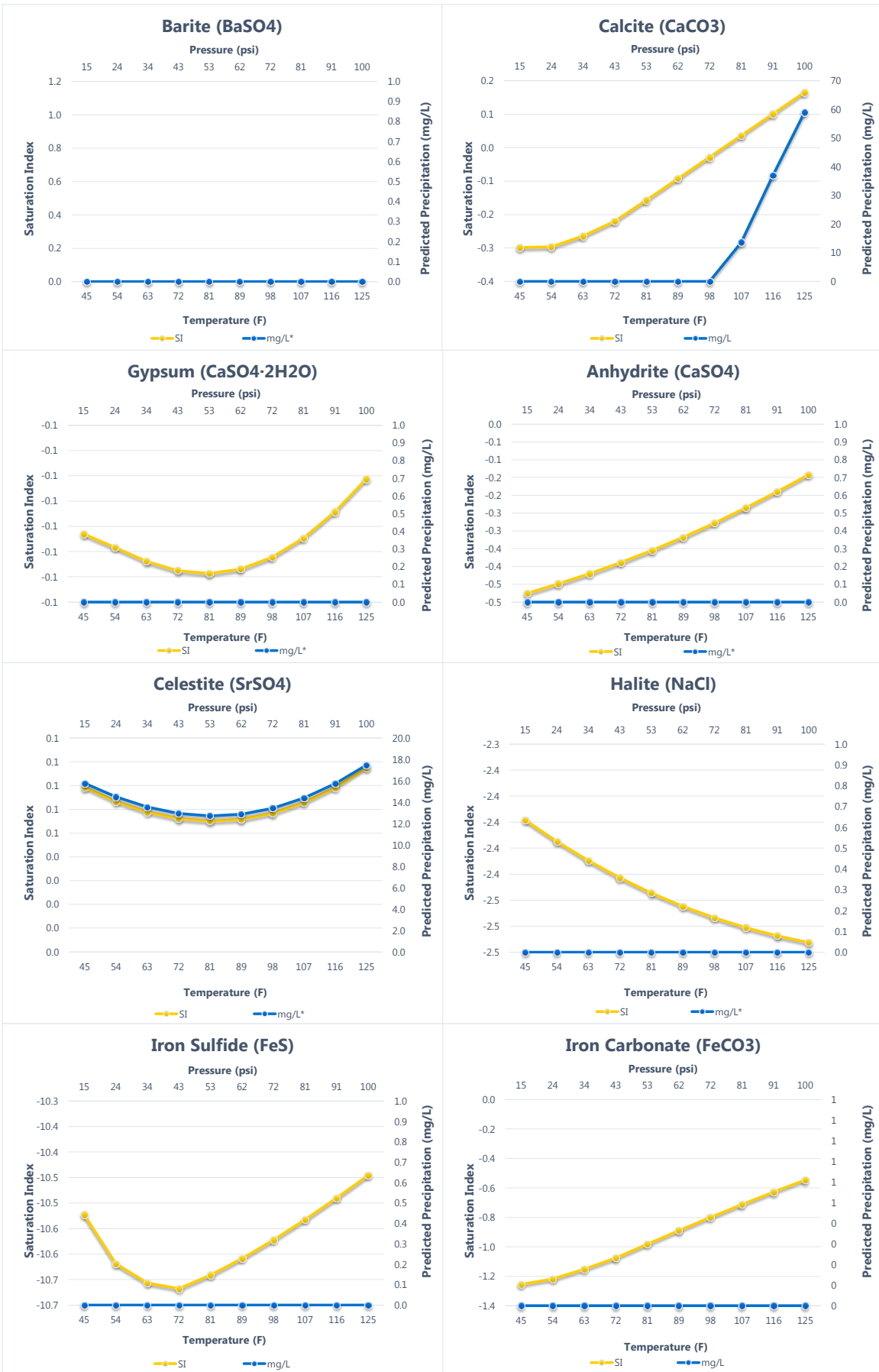
Conditions		Barite (BaSO ₄)		Calcite (CaCO ₃)		Gypsum (CaSO ₄ ·2H ₂ O)		Anhydrite (CaSO ₄)	
Temp	Press.	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)	Index	Amt (ptb)
45°F	15 psi		0.000	-0.30	0.000	-0.12	0.000	-0.48	0.000
54°F	24 psi		0.000	-0.30	0.000	-0.12	0.000	-0.45	0.000
63°F	34 psi		0.000	-0.26	0.000	-0.12	0.000	-0.42	0.000
72°F	43 psi		0.000	-0.22	0.000	-0.12	0.000	-0.39	0.000
81°F	53 psi		0.000	-0.16	0.000	-0.12	0.000	-0.35	0.000
89°F	62 psi		0.000	-0.09	0.000	-0.12	0.000	-0.32	0.000
98°F	72 psi		0.000	-0.03	0.000	-0.12	0.000	-0.28	0.000
107°F	81 psi		0.000	0.04	4.766	-0.12	0.000	-0.23	0.000
116°F	91 psi		0.000	0.10	12.937	-0.11	0.000	-0.19	0.000
125°F	100 psi		0.000	0.16	20.638	-0.11	0.000	-0.14	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)
45°F	15 psi	0.07	5.520	-2.40	0.000	-10.52	0.000	-1.26	0.000
54°F	24 psi	0.06	5.077	-2.41	0.000	-10.62	0.000	-1.22	0.000
63°F	34 psi	0.06	4.744	-2.43	0.000	-10.66	0.000	-1.15	0.000
72°F	43 psi	0.06	4.533	-2.44	0.000	-10.67	0.000	-1.08	0.000
81°F	53 psi	0.06	4.452	-2.45	0.000	-10.64	0.000	-0.98	0.000
89°F	62 psi	0.06	4.507	-2.46	0.000	-10.61	0.000	-0.89	0.000
98°F	72 psi	0.06	4.702	-2.47	0.000	-10.57	0.000	-0.80	0.000
107°F	81 psi	0.06	5.038	-2.48	0.000	-10.53	0.000	-0.71	0.000
116°F	91 psi	0.07	5.512	-2.49	0.000	-10.49	0.000	-0.63	0.000
125°F	100 psi	0.08	6.120	-2.49	0.000	-10.45	0.000	-0.55	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; %CO₂ is not included in the calculations.



Comments:



SCALE PREDICTIONS BASED ON FIELD PROVIDED DATA; FUTHER MODELING MAY BE REQUIRED FOR VALIDATION OF SCALE PREDICTION RESULTS.