



**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>	_____	_____	_____	_____	_____

**STAABCO CHEMICAL, INC.**P.O. Box D  
Plainville, KS 67663Phone: (785) 737-6141  
Fax: (785) 434-2529**WATER ANALYSIS REPORT**Company: Shakespeare  
Source: Ottley 1-10 SWD, 6-15 & 9-15 Inj.Date Sampled: 1-19-16  
Date Analyzed: 1-26-16

pH:	6.00	Total Dissolved Solids (mg/L):	113,906
Dissolved H <sub>2</sub> S:	0		
Dissolved CO <sub>2</sub> :	0	Total Ionic Strength:	2.029
Specific Gravity:	1.065		
Density, (lbs/gal):	8.88		

	mg/L	Meq/L
<b>Anions</b>		
Sulfide	393.6	393.6
Bicarbonate:	433	7
Chloride:	69,000	1,944
Sulfate:	200	4
<b>Cations</b>		
Calcium:	1,920	96
Magnesium:	464	38
Sodium:	41,881	1,821
Barium:	8	
Strontium:	0	
Total Hardness:	2,680	
Total Dissolved Iron:	0	
Ferrous Iron:	Not Determined	

**PROBABLE MINERAL COMPOSITION**

96 Ca	7 HCO <sub>3</sub>		
38 Mg	4 SO <sub>4</sub>		
1,821 Na	1,944 Cl		
		Meq/L	mg/L
		7	575
		4	284
		85	4,703
		0	0
		0	0
		38	1,810
		0	0
		0	0
		1,821	106,452

  

Saturation Values	
In Distilled Water @ 20°C	
CaCO <sub>3</sub>	13 mg/L
CaSO <sub>4</sub> * 2H <sub>2</sub> O	2,090 mg/L
MgCO <sub>3</sub>	103 mg/L

**COMMENTS:**

# STAABCO CHEMICAL, INC.

P.O. Box D  
Plainville, KS 67663

Phone: (785) 737-6141  
Fax: (785) 434-2529

## Scale Deposition Potential Analysis

Company: Shakespeare  
Source: Ottley 1-10 SWD, 6-15 & 9-15 Inj.

Date Sampled: 1-19-16  
Date Analyzed: 1-26-16

### Brine Composition

pH:	6.00	Ca, mg/L:	1,920	Total Hardness, mg/L:	2,680
Specific Gravity:	1.065	Mg, mg/L:	464	Total Dissolved Solids, mg/L:	113,906
HCO <sub>3</sub> , mg/L:	433	Na, mg/L:	41,881	Total Ionic Strength:	2.029
Cl, mg/L:	69,000	Ba, mg/L:	8	Total Dissolved Iron, mg/L:	0.0
SO <sub>4</sub> , mg/L:	200	Sr, mg/L:	0		

### Calcium Carbonate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	110	130
Stiff-Davis Index:	-0.84	-0.54	-0.18	0.28	-0.40	-0.09
Deposition, lbs/1,000 Bbls:	-898.5	-463.1	-126.4	106.1	-319.8	-62.3

### Calcium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	110	130
Supersaturation Ratio:	0.06	0.06	0.06	0.06	0.06	0.06
Deposition, lbs/1,000 Bbls:	-1569.9	#####	-1543.3	-1524.8	-1557.1	-1538.6

### Barium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	110	130
Supersaturation Ratio:	7.37	5.28	3.82	2.70	4.65	3.54
Deposition, lbs/1,000 Bbls:	4.1	3.9	3.5	3.0	3.7	3.4

 Return To Main Menu

