



**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	_____	_____	_____	_____	_____

GLASSMAN 4-35 LIST OF LEASES

BADER 2-23

BADGER 1-16

CARSON 1-25

FOSTER 1-17

FREY 1-15

JANZEN 2-36

KOEHN 1-10

NICHOLS 1-15

PARSONS 1-27

RUDOLPH 1-22

STOLL 2-17

TEETER 1-11

TEETER

TUCKER 1-9

YORK 1-2

ZERR TRUST 1-23

CLARK TRUST - LARIO

KUHLMAN D & E - MURFIN

STAABCO CHEMICAL, INC.

P.O. Box D
Plainville, KS 67663

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

WATER ANALYSIS REPORT

Company: Shakespeare
Source: Glassman 4-35 SWD & 6-36 Inj.

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

pH:	6.00	Total Dissolved Solids (mg/L):	172,978
Dissolved H ₂ S:	0		
Dissolved CO ₂ :	0	Total Ionic Strength:	3.085
Specific Gravity:	1.090		
Density, (lbs/gal):	9.09		

	mg/L	Meq/L
Anions		
Sulfide	283.2	283.2
Bicarbonate:	238	4
Chloride:	101,000	2,845
Sulfate:	4,700	98
Cations		
Calcium:	2,520	126
Magnesium:	415	34
Sodium:	64,098	2,787
Barium:	7	
Strontium:	0	
Total Hardness:	3,200	
Total Dissolved Iron:	0	
Ferrous Iron:	Not Determined	

PROBABLE MINERAL COMPOSITION

126 Ca	4 HCO ₃		
34 Mg	98 SO ₄	Meq/L	mg/L
2,787 Na	2,845 Cl	Calcium Bicarbonate:	4 316
		Calcium Sulfate:	98 6,665
		Calcium Chloride:	24 1,342
		Magnesium Bicarbonate:	0 0
		Magnesium Sulfate:	0 0
		Magnesium Chloride:	34 1,619
		Sodium Bicarbonate:	0 0
		Sodium Sulfate:	0 0
		Sodium Chloride:	2,787 162,922

Saturation Values
In Distilled Water @ 20°C

CaCO ₃	13 mg/L
CaSO ₄ * 2H ₂ O	2,090 mg/L
MgCO ₃	103 mg/L

COMMENTS:

STAABCO CHEMICAL, INC.

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Scale Deposition Potential Analysis

Company: Shakespeare
Source: Glassman 4-35 SWD & 6-36 Inj.

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

Brine Composition

pH:	6.00	Ca, mg/L:	2,520	Total Hardness, mg/L:	3,200
Specific Gravity:	1.090	Mg, mg/L:	415	Total Dissolved Solids, mg/L:	172,978
HCO ₃ , mg/L:	238	Na, mg/L:	64,098	Total Ionic Strength:	3.085
Cl, mg/L:	101,000	Ba, mg/L:	7	Total Dissolved Iron, mg/L:	0.0
SO ₄ , mg/L:	4,700	Sr, mg/L:	0		

Calcium Carbonate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	110	130
Stiff-Davis Index:	-0.67	-0.36	0.03	0.46	-0.21	0.10
Deposition, lbs/1,000 Bbls:	-416.3	-171.5	2.8	81.3	-86.8	20.8

Calcium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	110	130
Supersaturation Ratio:	1.00	1.00	1.01	1.01	1.00	1.01
Deposition, lbs/1,000 Bbls:	-2.6	2.9	15.4	14.1	8.9	17.5

Barium Sulfate Scale Indices

					Specified Temperatures	
Temperature, °F:	75	100	125	150	110	130
Supersaturation Ratio:	113.92	83.23	62.04	45.36	73.93	57.98
Deposition, lbs/1,000 Bbls:	4.1	4.1	4.1	4.1	4.1	4.1

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