

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	_____	_____	_____	_____	_____
	<b>TOTAL</b>	_____	_____	_____	_____	_____

# Complete Water Analysis

Customer: **GREAT PLAINS ENERGY INC**  
 Geographic Region: **Kansas**  
 Geographic Location: **Decatur County**  
 System Description: **Production System**

Equipment Description: **Swede Hollow Injection**  
 Sample Point: **Injection**  
 Sample ID: **AT02253**  
 Account Rep: **Steve.Eckhardt@championx.com**

Collection Date: **02/11/2022**  
 Receive Date: **02/22/2022**  
 Report Date: **02/25/2022**  
 Location Code: **470211**

Field Analysis		
<u>Analysis</u>	<u>Result</u>	<u>Analysis Method</u>
Bicarbonate	459 mg/L	Titration
Dissolved CO2	220 mg/L	Titration
Dissolved H2S	132.6 mg/L	Titration
Pressure Surface	10 psi	
Temperature	76 °F	
pH of Water	6.9	Meter

Sample Analysis		
<u>Analysis</u>	<u>Result</u>	<u>Analysis Method</u>
Specific Gravity	1.052	Densitometer
Ionic Strength	1.63 mol/L	Calculation
Total Dissolved Solids	91603.46 mg/L	Calculation

## Cations - Analyzed By ICP

Iron	0.320 mg/L	Measured Sodium	33410 mg/L
Manganese	0.171 mg/L		
Barium	11.97 mg/L		
Strontium	402.4 mg/L		
Calcium	1254 mg/L		
Magnesium	540.6 mg/L		
Sodium	33410.00 mg/L		

## Anions - Analyzed By IC

Chloride	55207 mg/L
Sulfate	318 mg/L

## Scale Type

Anhydrite CaSO4 PTB	N/A	Anhydrite CaSO4 SI	-1.63
Barite BaSO4 PTB	6.5	Barite BaSO4 SI	1.08
Calcite CaCO3 PTB	N/A	Calcite CaCO3 SI	-0.48
Celestite SrSO4 PTB	N/A	Celestite SrSO4 SI	-0.05
Gypsum CaSO4 PTB	N/A	Gypsum CaSO4 SI	-1.42
Hemihydrate CaSO4 PTB	N/A	Hemihydrate CaSO4 SI	-1.43

## Comments

Scaling predictions calculated using Oddo-Tomson model

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