

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>	_____	_____	_____	_____	_____

Customer: **GREAT PLAINS ENERGY INC**  
 Region: **Swede Hollow Unit**  
 Location: **Decatur, KS**  
 System: **Injection**

Equipment: **Injection Plant**  
 Sample Point: **Bleeder**  
 Sample ID: **AN86589**  
 Acct Rep Email: **Steve.Eckhardt@ecolab.com**

Collection Date: **10/08/2019**  
 Receive Date: **10/18/2019**  
 Report Date: **10/25/2019**  
 Location Code: **420714**

### Field Analysis

Bicarbonate	<b>468</b> mg/L	Dissolved CO2	<b>238</b> mg/L	Dissolved H2S	<b>200.6</b> mg/L
Pressure Surface	<b>120</b> psi	Temperature	<b>81</b> ° F	pH of Water	<b>7.0</b>

### Sample Analysis

Conductivity (Calculated)	<b>138770</b> µS - cm3	Ionic Strength	<b>1.57</b>	Resistivity	<b>0.072</b> ohms - m
Specific Gravity	<b>1.055</b>	Total Dissolved Solids	<b>88813.48</b> mg/L		

### Cations

Iron	<b>0.695</b> mg/L	Manganese	<b>0.075</b> mg/L	Barium	<b>8.079</b> mg/L
Strontium	<b>32.45</b> mg/L	Calcium	<b>1144</b> mg/L	Magnesium	<b>417.5</b> mg/L
Sodium	<b>32896.68</b> mg/L				

### Anions

Chloride	<b>53592</b> mg/L	Sulfate	<b>254</b> mg/L
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### Scale Type

Anhydrite CaSO4 PTB	N/A	Anhydrite CaSO4 SI	-1.74
Barite BaSO4 PTB	4.0	Barite BaSO4 SI	0.79
Calcite CaCO3 PTB	N/A	Calcite CaCO3 SI	-0.35
Celestite SrSO4 PTB	N/A	Celestite SrSO4 SI	-1.23
Gypsum CaSO4 PTB	N/A	Gypsum CaSO4 SI	-1.56
Hemihydrate CaSO4 PTB	N/A	Hemihydrate CaSO4 SI	-1.57

### Comments

Scaling predictions calculated using Odco-Tomson model

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