

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:**

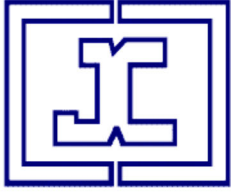
Maximum Authorized Injection Pressure: \_\_\_\_\_ psi Injection Zone: \_\_\_\_\_  
Maximum Authorized Injection Rate: \_\_\_\_\_ barrels per day  
Total Number of Enhanced Recovery Injection Wells Covered by this Permit: \_\_\_\_\_ (Include TA's)

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>	_____	_____	_____	_____	_____





# DownHole SAT™ Water Analysis Report



JACAM LABORATORIES

## SYSTEM IDENTIFICATION

LINN OPERATING  
BURG K L 20 001 SWD  
JEFF SULLIVAN  
DUMP VALVE  
FINNEY KS

Sample ID#: 3076  
ID: 208788  
Report Date: 01-02-2019  
Sample Date: 12-17-2018  
at 0000

## WATER CHEMISTRY

### CATIONS

Calcium(as Ca)	1533
Magnesium(as Mg)	621.60
Barium(as Ba)	0.115
Strontium(as Sr)	58.86
Sodium(as Na)	23810
Potassium(as K)	236.90
Lithium(as Li)	4.20
Iron(as Fe)	0.550
Field Iron(as Fe)	1.00
Ammonia(as NH <sub>3</sub> )	0.00
Aluminum(as Al)	0.00
Manganese(as Mn)	0.165
Zinc(as Zn)	0.280
Lead(as Pb)	0.00

### ANIONS

Chloride(as Cl)	41100
Sulfate(as SO <sub>4</sub> )	2800
Bromine(as Br)	0.00
Dissolved CO <sub>2</sub> (as CO <sub>2</sub> )	60.00
Bicarbonate(as HCO <sub>3</sub> )	347.70
Carbonate(as CO <sub>3</sub> )	0.00
Silica(as SiO <sub>2</sub> )	0.00
Phosphate(as PO <sub>4</sub> )	0.00
H <sub>2</sub> S (as H <sub>2</sub> S)	50.00
Fluoride(as F)	0.00
Nitrate(as NO <sub>3</sub> )	0.00
Boron(as B)	23.52

### PARAMETERS

Temperature(°F)	62.10
T.D.S.	69914
Conductivity:	93255
Sample pH	7.10
Resistivity:	10.72

## SCALE AND CORROSION POTENTIAL

Temp. (°F)	Press. (atm)	Calcite CaCO <sub>3</sub>		Anhydrite CaSO <sub>4</sub>		Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> O		Barite BaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Siderite FeCO <sub>3</sub>		Mackawenite FeS		CO <sub>2</sub> (mpy)	pCO <sub>2</sub> (atm)
50.00	0.00	1.39	0.0478	0.525	-434.22	0.872	-90.96	6.52	0.0577	1.33	10.41	0.553	-0.0891	37.23	0.0540	0.0357	0.0185
65.45	0.00	1.97	0.103	0.490	-477.42	0.788	-158.41	4.11	0.0515	1.21	7.14	0.881	-0.0193	30.61	0.0530	0.0368	0.0185
80.91	0.00	2.64	0.157	0.485	-475.30	0.727	-211.46	2.75	0.0433	1.16	5.75	1.32	0.0427	25.20	0.0518	0.0242	0.0185
96.36	0.00	3.38	0.205	0.504	-435.02	0.683	-251.29	1.94	0.0330	1.15	5.46	1.88	0.0956	20.85	0.0504	0.0185	0.0185
111.82	0.00	4.14	0.247	0.548	-364.93	0.701	-226.92	1.43	0.0204	1.16	5.67	2.55	0.139	17.36	0.0489	0.0412	0.0185
127.27	0.00	4.95	0.285	0.620	-274.23	0.762	-166.55	1.07	0.00428	1.16	5.71	3.33	0.176	14.60	0.0472	0.0346	0.0185
142.73	0.00	5.75	0.318	0.726	-171.49	0.819	-117.01	0.804	-0.0166	1.15	5.53	4.20	0.206	12.36	0.0453	0.0280	0.0185
158.18	0.00	6.47	0.344	0.879	-64.24	0.874	-76.37	0.611	-0.0433	1.14	5.16	5.10	0.227	10.51	0.0431	0.0292	0.0185
173.64	0.00	7.05	0.360	1.09	41.37	0.925	-43.06	0.468	-0.0774	1.13	4.60	5.92	0.241	8.93	0.0406	0.0302	0.0185
189.09	0.00	7.41	0.364	1.40	140.63	0.971	-15.88	0.361	-0.121	1.10	3.86	6.57	0.246	7.57	0.0378	0.0152	0.0185
204.55	0.00	7.52	0.356	1.83	230.16	1.01	6.03	0.280	-0.175	1.08	2.93	6.93	0.243	6.37	0.0345	0.0128	0.0185
220.00	0.171	7.25	0.342	2.39	307.04	1.03	15.22	0.215	-0.249	1.03	1.09	6.86	0.232	5.99	0.0312	0.0174	0.0217
		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels		Lbs per xSAT 1000 Barrels			

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO<sub>3</sub>}/K<sub>sp</sub>. pCO<sub>2</sub> (atm) is the partial pressure of CO<sub>2</sub> in the gas phase. Lbs/1000 Barrels scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.

