

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	_____	_____	_____	_____	_____
	TOTAL	_____	_____	_____	_____	_____



JACAM LABORATORIES

DownHole R_x
WATER CHEMISTRY

ANCHOR BAY PETROLEUM
LARRY HACKEROTT
ROOKS KS

ROMINE #4
BLEEDER

Report Date: 04-21-2014 Sampled: 04-01-2014
Sample #: 2393 at 0000

Sample ID: 67240

CATIONS

Calcium (as Ca)	3651
Magnesium (as Mg)	1115
Barium (as Ba)	0.809
Strontium (as Sr)	129.10
Sodium (as Na)	15352
Potassium (as K)	358.90
Lithium (as Li)	15.59
Ammonia (as NH ₃)	0.00
Aluminum (as Al)	0.00
Iron (as Fe)	98.93
Manganese (as Mn)	2.46
Zinc (as Zn)	0.553
Lead (as Pb)	0.00

ANIONS

Chloride (as Cl)	34600
Sulfate (as SO ₄)	400.00
Bromine (as Br)	0.00
Dissolved CO ₂ (as CO ₂)	200.00
Bicarbonate (as HCO ₃)	222.00
Carbonate (as CO ₃)	0.00
Oxalic acid (as C ₂ O ₄)	0.00
Silica (as SiO ₂)	0.00
Phosphate(as PO ₄)	0.00
H ₂ S (as H ₂ S)	25.00
Fluoride (as F)	0.00
Nitrate (as NO ₃)	0.00
Boron (as B)	20.27

PARAMETERS

Calculated T.D.S.	55719
Molar Conductivity	72878
Resistivity	13.72
Sp.Gr.(g/mL)	1.04
Pressure(atm)	1.00
pCO ₂ (atm)	0.0353
pH ₂ S(atm)	0.0158
Temperature (°F)	85.00
pH	6.50

COMMENTS

ROOKS KS

JACAM LABORATORIES
205 S. Broadway · P.O. Box 96 · Sterling, KS 67579-0096



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SATURATION LEVEL

Calcite (CaCO ₃)	1.20
Aragonite (CaCO ₃)	1.04
Witherite (BaCO ₃)	< 0.001
Strontianite (SrCO ₃)	0.101
Calcium oxalate (CaC ₂ O ₄)	0.00
Magnesite (MgCO ₃)	0.361
Anhydrite (CaSO ₄)	0.144
Gypsum (CaSO ₄ *2H ₂ O)	0.214
Barite (BaSO ₄)	2.07
Celestite (SrSO ₄)	0.298
Fluorite (CaF ₂)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO ₂)	0.00
Brucite (Mg(OH) ₂)	< 0.001
Magnesium silicate	0.00
Iron hydroxide (Fe(OH) ₃)	< 0.001
Strengite (FePO ₄ *2H ₂ O)	0.00
Siderite (FeCO ₃)	46.83
Halite (NaCl)	0.00718
Thenardite (Na ₂ SO ₄)	< 0.001
Iron sulfide (FeS)	109.95

MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO ₃)	0.00686
Aragonite (CaCO ₃)	0.00149
Witherite (BaCO ₃)	-21.00
Strontianite (SrCO ₃)	-0.541
Calcium oxalate (CaC ₂ O ₄)	-0.0192
Magnesite (MgCO ₃)	-0.0620
Anhydrite (CaSO ₄)	-456.28
Gypsum (CaSO ₄ *2H ₂ O)	-329.40
Barite (BaSO ₄)	0.247
Celestite (SrSO ₄)	-87.03
Fluorite (CaF ₂)	-4.81
Calcium phosphate	>-0.001
Hydroxyapatite	-372.47
Silica (SiO ₂)	-43.43
Brucite (Mg(OH) ₂)	0.00139
Magnesium silicate	-111.73
Iron hydroxide (Fe(OH) ₃)	< 0.001
Strengite (FePO ₄ *2H ₂ O)	>-0.001
Siderite (FeCO ₃)	0.0471
Halite (NaCl)	-175639
Thenardite (Na ₂ SO ₄)	-71900
Iron sulfide (FeS)	3.23

SIMPLE INDICES

Langelier	0.308
Ryznar	5.88
Puckorius	4.62
Larson-Skold Index	296.03
Stiff Davis Index	-0.300
Oddo-Tomson	-0.536

BOUND IONS

Calcium	3651	3577
Barium	0.809	0.809
Carbonate	1.21	0.0716
Phosphate	0.00	0.00
Sulfate	400.00	175.08

TOTAL

FREE

OPERATING CONDITIONS

Temperature (°F) 85.00
Time(secs) 0.00