



**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>	_____	_____	_____	_____	_____



Cochran Chemical Company, Inc.

P. O. Drawer 1341  
Wewoka, Ok. 74881

## WATER ANALYSIS

<b>COMPANY:</b>	MCGOWAN OIL COMPANY	<b>LEASE &amp; WELL:</b>	CHRISTENSON # 1
<b>FIELD:</b>	EAST ARK CITY	<b>COUNTY:</b>	COWLEY
<b>WATER:</b>	N/A	<b>Oil:</b>	N/A
	(Bbls/Day)		(Bbls/Day)
<b>FORMATION:</b>		<b>DATE SAMPLED:</b>	12/4/2014
		<b>SAMPLE POINT:</b>	WELL HEAD
		<b>STATE:</b>	KS

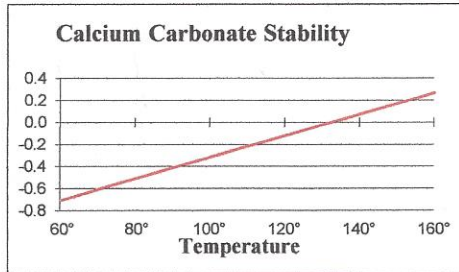
<b>SOLIDS</b>	<i>Cations</i>	me/l	mg/l	<i>Anions</i>	me/l	mg/l
Calcium (Ca)		496.0	9,920	Chloride (Cl)	2,873.2	102,000
Magnesium (Mg)		191.3	2,320	Bicarbonate (HCO <sup>3-</sup> )	0.9	55
Sodium (Na)		2,189.6	50,360	Sulfate (SO <sub>4</sub> )	2.3	110
Barium (Ba)		0.2	14			
<b>Iron, Total:</b>		1.0	19	<b>Total Dissolved Solids (mg/l):</b>		164,779
<b>Iron, Ferrous:</b>		0.3	6			
<b>Iron, Ferric:</b>		0.7	13			

<b>GASES:</b>	
Oxygen, O <sup>2</sup> :	N/A
Carbon Dioxide, CO <sup>2</sup> :	175
Hydrogen Sulfide, H <sup>2</sup> S:	0.5

**Specific Gravity:** 1.0824  
**pH:** 6.1

**Calcium Carbonate**

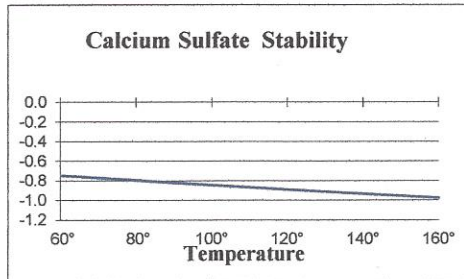
<b>Temp</b>	<b>S.I.</b>
60°	-0.70
80°	-0.51
100°	-0.31
120°	-0.12
140°	0.08
160°	0.27



Positive values indicate precipitation.

**Calcium Sulfate**

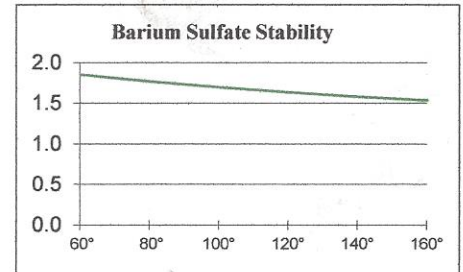
<b>Temp</b>	<b>S.I.</b>
60°	-0.74
80°	-0.79
100°	-0.84
120°	-0.89
140°	-0.93
160°	-0.97



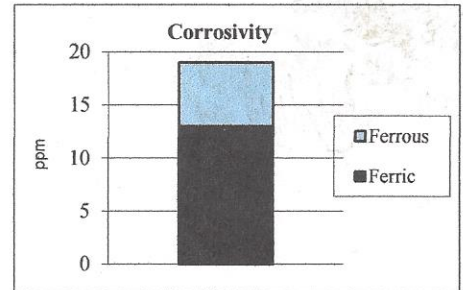
Positive values indicate precipitation.

**Barium Sulfate**

<b>Temp</b>	<b>S.I.</b>
60°	1.9
80°	1.8
100°	1.7
120°	1.6
140°	1.6
160°	1.5



Positive values indicate precipitation.



Ferric iron is loss due to corrosion.  
Ferrous iron is natural formation iron.

**NOTES:**

BACTERIA IS BEING TESTED FOR AMOUNT PRESENT

Tested by: MIKE