



# 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>	_____	_____	_____	_____	_____

**National Petrochem**  
 529 Seabrook Road  
 Ada, Okla. 74820

Phone: 580-332-0240  
 Fax: 580-332-8631

## WATER ANALYSIS REPORT

**Company:** Petroleum Resource Management Company  
**Water Source:** Hammond Produced  
**Sample Point:** G.B. Water Leg

**Lab ID Number:** JDT  
**Date Sampled:** 5-05-15  
**Date Analyzed:** 5-11-15

**Production Data:**      **BOPD:**      0                      **BWPD:**      0                      **MMCFD:**      0

	6.86	Total Dissolved Solids (mg/L)	63,901
pH	0.0	Total Ionic Strength	1.197
Dissolved H <sub>2</sub> S	160.0	Specific Gravity	1.050
Dissolved CO <sub>2</sub>	0.11375	Density (lbs/gal)	8.76
Resistivity @ 75°F (Ohm-Meters)			

Cations	mg/L	Meq/L	Anions	mg/L	Meq/L
Calcium	2,080	104	Carbonate	0	0
Magnesium	923	76	Bicarbonate	390	6
Sodium	21,282	925	Chloride	39,000	1,099
Barium	225		Sulfate	0	0
Strontium	0		Total Hardness	9,000	
Ferrous Iron	44.5				
Total Dissolved Iron	59.0				

## PROBABLE MINERAL COMPOSITION

	mg/L	Meq/L
Calcium Bicarbonate:	519	6
Calcium Sulfate:	0	0
Calcium Chloride:	5,417	98
Magnesium Bicarbonate:	0	0
Magnesium Sulfate:	0	0
Magnesium Chloride:	3,604	76
Sodium Bicarbonate:	0	0
Sodium Sulfate:	0	0
Sodium Chloride:	54,093	925

**Remarks**

WL. County Kansas                      Sample Received 5-08-15  
 Strontium Not Tested                      Bacteria Report Due 6-08-15  
 Requested By Bruce Kiddoo



Analyst: \_\_\_\_\_

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### SCALE DEPOSITION POTENTIAL ANALYSIS

<b>Company:</b>	Petroleum Resource Management Company	<b>Lab ID Number:</b>	JDT
<b>Water Source:</b>	Hammond Produced	<b>Date Sampled:</b>	5-05-15
<b>Sample Point:</b>	G B Water Leg	<b>Date Analyzed:</b>	5-11-15

#### Brine Composition

pH	6.86	Ca, mg/L	2,080	Total Hardness, mg/L	9,000
Specific Gravity	1.050	Mg, mg/L	923	Total Dissolved Solids, mg/L	63,901
HCO <sub>3</sub> , mg/L	390	Na, mg/L	21,282	Total Ionic Strength	1,197
Cl, mg/L	39,000	Ba, mg/L	225	Total Dissolved Iron, mg/L	59.0
SO <sub>4</sub> , mg/L	0	Sr, mg/L	0		

#### Calcium Carbonate Scale Indices

	Specified Temperatures				60	90
Temperature, °F	75	100	125	150		
Stiff-Davis Index	-0.08	0.19	0.59	1.05	-0.24	0.08
Deposition, lbs/1,000 Bbls	-36.0	79.2	160.7	202.2	-124.9	43.1

#### Calcium Sulfate Scale Indices

	Specified Temperatures				60	90
Temperature, °F	75	100	125	150		
Supersaturation Ratio	0.000	0.000	0.000	0.000	0.000	0.000
Deposition, lbs/1,000 Bbls	-1,260.5	-1,257.3	-1,240.1	-1,214.5	-1,264.0	

#### Barium Sulfate Scale Indices

	Specified Temperatures				60	90
Temperature, °F	75	100	125	150		
Supersaturation Ratio	0.000	0.000	0.000	0.000	0.000	0.000
Deposition, lbs/1,000 Bbls	-0.5	-0.6	-0.9	-1.3	-0.4	-0.6

#### Strontium Sulfate Scale Indices

	Specified Temperatures				60	90
Temperature, °F	75	100	125	150		
Supersaturation Ratio	0.000	0.000	0.000	0.000	0.000	0.000
Deposition, lbs/1,000 Bbls	-8.3	-9.2	-11.1	-13.4	-7.5	-9.0

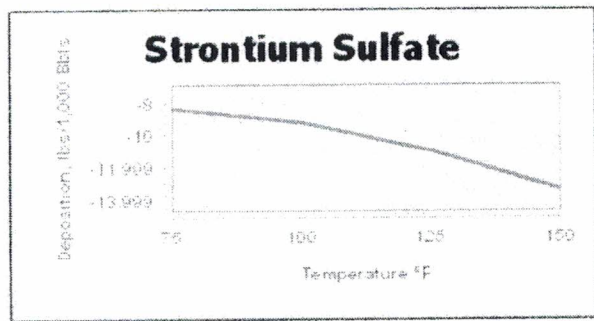
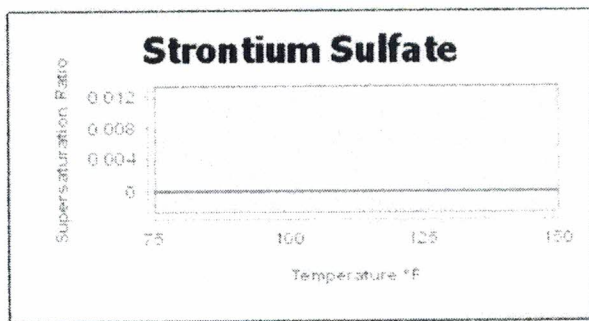
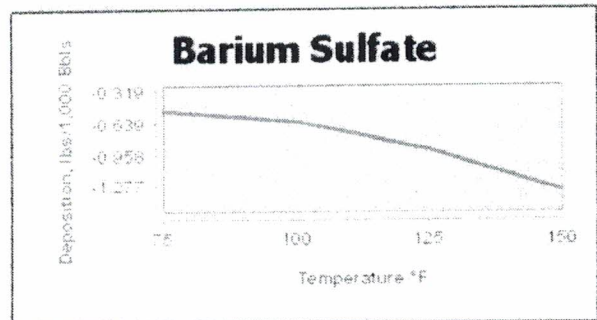
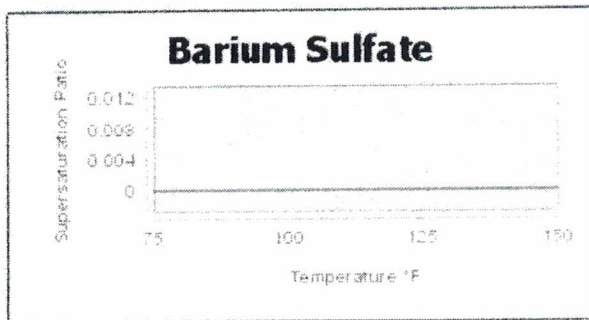
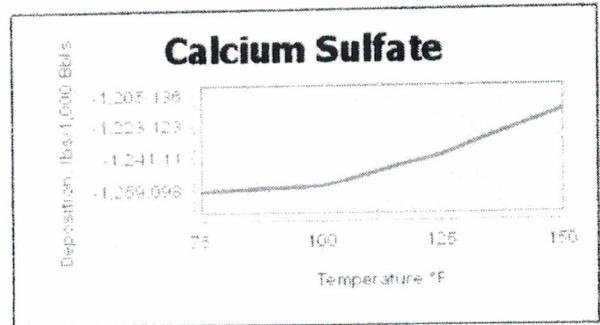
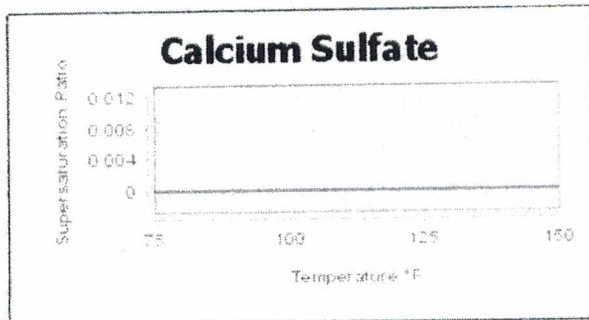
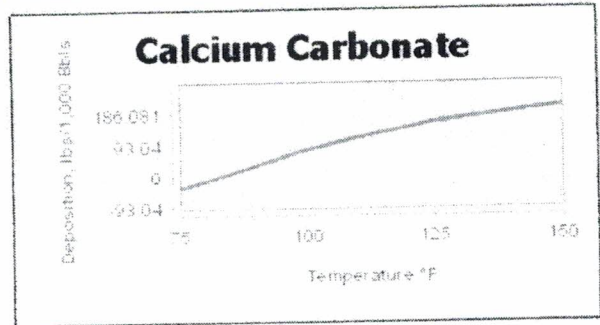
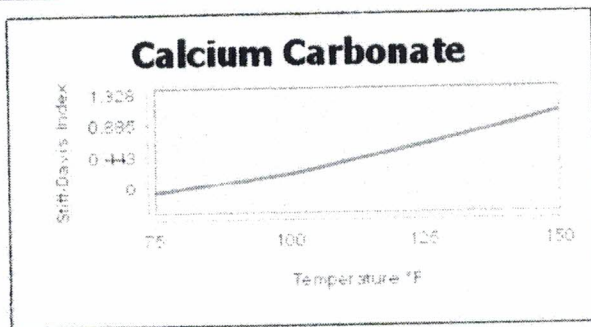
*Attuda*  *fax*

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**SCALE DEPOSITION POTENTIAL TRENDS**

<b>Company:</b>	Petroleum Resource Management Company	<b>Lab ID Number:</b>	JDT
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<b>Sample Point:</b>	G.B. Water Leg	<b>Date Analyzed:</b>	5-11-15



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