OCD-HOBBS

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160 - 3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

5 Lease Serial No
NMLC061154

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Bassett Birney #1

2. Name of Operator
COG Operating LLC

9. API Well No.
30-025-28689

3a Address
550 W. Texas Ave., Suite 1300 Midland, TX 79701

3b. Phone No. *(include area code)*
432-683-7443

10. Field and Pool, or Exploratory Area
Pearsall; Queen 49970

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
660 FNL & 660 FWL
Sec 5, T18S, R32E, Unit D

11. County or Parish, State
Lea County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☑ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other **method of water disposal**
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Producing Formation: Pearsall Queen
Amout Produced: 2 BWPD
Water stored in 500 bbl Water Tank

Water is transported by 4" SDR 11 Polypipe to:

Operator: COG Operating LLC
Facility Name: Pronghorn SWD
Well Location: NE/4 NW/4 Sec 24, T19S, R32E, Unit B
330 FNL & 1650 FEL
Lea Co., NM
SWD Permit #: Administrative Order SWD-536

RECEIVED
FEB 26 2008
HOBBS OCD

APPROVED
FEB 24 2008
JAMES A. AMOS
SUPERVISOR-EPS

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Diane Kuykendall

Title **Regulatory Analyst**

Signature

Date **01/10/2008**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date APR 11 2008

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	MACK ENERGY INCORPORATED	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (505) 910-9389
Area:	ARTESIA, NM	Sample #:	326977
Lease/Platform:	BASSETT BIRNEY	Analysis ID #:	47102
Entity (or well #):	1	Analysis Cost:	$40.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	11/24/04
Analysis Date:	12/7/04
Analyst:	SALLY MOORE
TDS (mg/l or g/m3):	169524.4
Density (g/cm3, tonne/m3):	1.121
Anion/Cation Ratio:	1
Carbon Dioxide:	75 PPM
Oxygen:	0 PPM
Comments:	
RESISTIVITY: 19.92 OHM-CM @ 77°F	

Analysis of Sample 326977 @ 75 °F

Anions	mg/l	meq/l
Chloride:	103532.0	2920.26
Bicarbonate:	124.4	2.04
Carbonate:	0.0	0.
Sulfate:	1575.0	32.79
Phosphate:		
Borate:		
Silicate:		
Hydrogen Sulfide:		1 PPM
pH at time of sampling:		7
pH at time of analysis:		
pH used in Calculation:		7

Cations	mg/l	meq/l
Sodium:	53384.8	2322.11
Magnesium:	4719.0	388.2
Calcium:	3555.0	177.4
Strontium:	84.0	1.92
Barium:	0.2	0.
Iron:	24.0	0.87
Potassium:	2526.0	64.6
Aluminum:		
Chromium:		
Copper:		
Lead:		
Manganese:		
Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.34	3.27	-0.29	0.00	-0.28	0.00	-0.21	0.00	0.27	0.00	0.09
100	0	0.40	4.46	-0.36	0.00	-0.28	0.00	-0.23	0.00	0.08	0.00	0.12
120	0	0.44	5.65	-0.41	0.00	-0.25	0.00	-0.25	0.00	-0.09	0.00	0.17
140	0	0.48	6.84	-0.45	0.00	-0.21	0.00	-0.25	0.00	-0.24	0.00	0.22

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

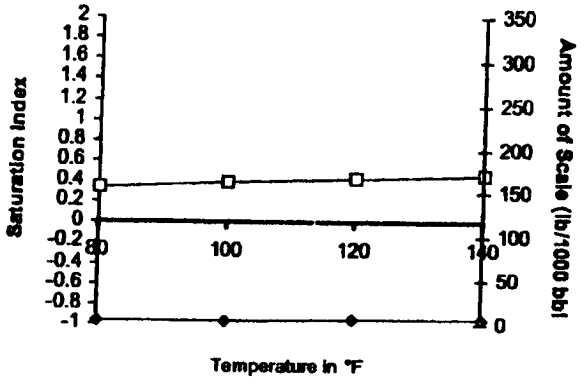
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

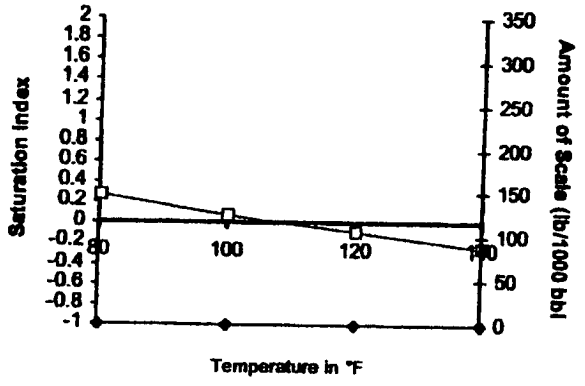
Scale Predictions from Baker Petrolite

Analysis of Sample 326977 @ 75 °F for MACK ENERGY INCORPORATED, 12/7/04

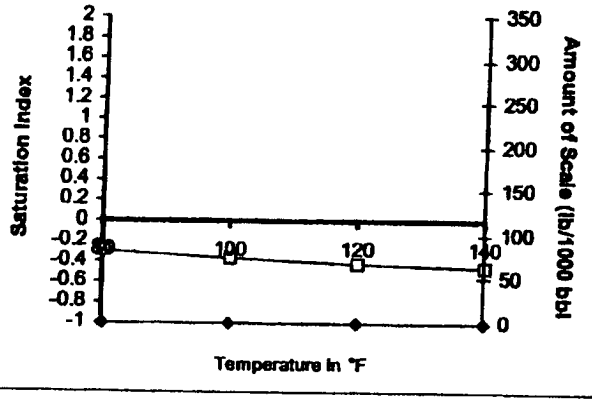
Calcite - CaCO3



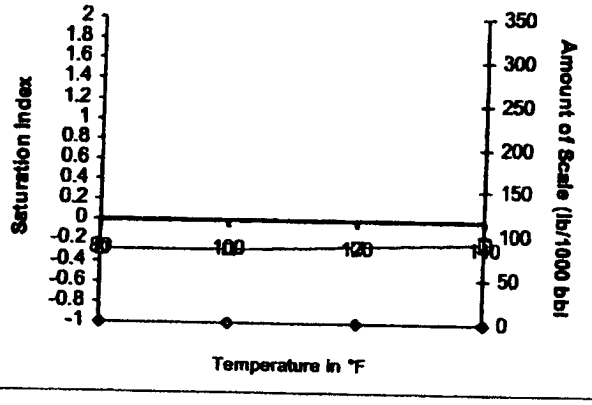
Barite - BaSO4



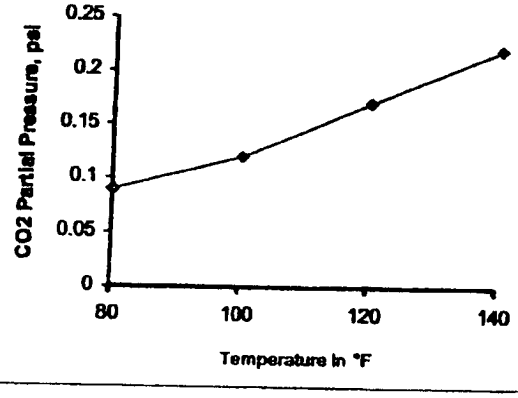
Gypsum - CaSO4*2H20



Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4