Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

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.
NMLC065710A

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.
LUSK DEEP UNIT A #17

2. Name of Operator
MARBOB ENERGY CORPORATION

9. API Well No.
30-025-35095

3a. Address
PO BOX 227, ARTESIA, NM 88211-0227

3b. Phone No. *(include area code)*
(505) 748-3303

10. Field and Pool, or Exploratory Area
LUSK STRAWN

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
660 FSL 890 FWL, SEC. 20-T19S-R32E, UNIT M

11. County or Parish, State
LEA CO., 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
	☐ 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.)

PRODUCED WATER FROM THE LUSK DEEP UNIT A #17 BATTERY IS TRANSPORTED TO OUR LUSK DEEP UNIT A #19 TANK BATTERY VIA A POLYETHYLENE PIPELINE. AT THE LUSK DEEP UNIT A #19 TANK BATTERY, THE LUSK DEEP UNIT A #17 PRODUCED WATER IS STORED IN A FIBERGLASS TANK UNTIL SUFFICIENT VOLUMES ARE REACHED TO DISPOSE OF PRODUCED WATER INTO OUR LUSK DEEP UNIT A #19 SALT WATER DISPOSAL WELL.

THE LUSK DEEP UNIT A #19 DISPOSAL SYSTEM IS A CLOSED SYSTEM USED ONLY BY MARBOB ENERGY CORPORATION. (N-17-T19S-R32E)

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
DIANA J. CANNON

Title PRODUCTION ANALYST

Signature

Date DECEMBER 27, 2002

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (ORIG. SGD.) DAVID R. GLASS

Title SEE ATTACHED FOR CONDITIONS OF APPROVAL

Date JAN 23 2003

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

DAVID R. GLASS
PETROLEUM ENGINEER

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.

GWW

Analytical Laboratory Report for:

Marbob

BJ Unichem Chemical Services

UNICHEM Representative: Bill Polk

Production Water Analysis

Listed below please find water analysis report from: Lusk Deep, #17

Lab Test No:	2003100969	Sample Date:	01/02/2003
Specific Gravity:	1.017		
TDS:	24761		
pH:	5.78		

Cations:	mg/L	as:
Calcium	1543	(Ca^{++})
Magnesium	218	(Mg^{++})
Sodium	6360	(Na^{+})
Iron	7.70	(Fe^{++})
Barium	0.60	(Ba^{++})
Strontium	112.30	(Sr^{++})
Manganese	3.10	(Mn^{++})
Anions:	**mg/L**	**as:**
Bicarbonate	105	(HCO_3^{-})
Sulfate	11	($SO_4^{=}$)
Chloride	16400	(Cl^{-})
Gases:		
Carbon Dioxide		(CO_2)
Hydrogen Sulfide		(H_2S)

Lab measured pH
Lab measured alkalinity

Marbob

Lab Test No: 2003100969

BJ Unichem Chemical Services

DownHole SAT™ Scale Prediction @ 100 deg. F

Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)
Calcite (CaCO3)	.0818	-.0512
Aragonite (CaCO3)	.0693	-.0612
Witherite (BaCO3)	< 0.001	-16.53
Strontianite (SrCO3)	.0117	-.565
Magnesite (MgCO3)	.0121	-.313
Anhydrite (CaSO4)	.00724	-363.99
Gypsum (CaSO4*2H2O)	.00863	-344.25
Barite (BaSO4)	.0469	-4.01
Celestite (SrSO4)	.00854	-163.92
Silica (SiO2)	0	-55.08
Brucite (Mg(OH)2)	< 0.001	-.824
Magnesium silicate	0	-116.01
Siderite (FeCO3)	.768	-.00159
Halite (NaCl)	.00186	-184809
Thenardite (Na2SO4)	< 0.001	-61929
Iron sulfide (FeS)	0	-.276

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The scale is logarithmic, i.e. a Saturation Index of 3 is 10 times more saturated than a value of 2.

The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) infinity to positive (precipitating) infinity. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.