Form 3160-3 (September 2001) 0298

OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

5. Lease Serial No.

NM-0	557	7371	
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6. If Indian, Allottee or Tribe Name

				4	
la. Type of Work: DRILL REENTE	R			7. If Unit or CA Agre	ement, Name and No.
		_		8. Lease Name and We	ell No.
1b. Type of Well:	✓ S	ingle Zone 🔲 Multi	ple Zone	AAO Federal #11	
2. Name of Operator				9. API Well No.	
MArbob Energy Corporation 1707 1	T., -2; ;			30-015	
3a. Address	1	o. (include area code)	336	10. Field and Pool, or I	•
PO Box 227, Artesia, NM 88211-0227	505-748-33			Red Lake; Glorieta	
4. Location of Well (Report location clearly and in accordance with	any State requi	irements. *)BECEI	NED	11. Sec., 1., R., M., or	Blk. and Survey or Area
At surface 890 FSL & 660 FWL		IAM o 9	2000	Section 1; T18S-R27	7E
At proposed prod. zone		JAN 23		, , , , , , , , , , , , , , , , , , ,	
14. Distance in miles and direction from nearest town or post office*		OCD-MA	IEDIA	12. County or Parish	13. State
	-,			Eddy County	NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of A	Acres in lease	17. Spacir	g Unit dedicated to this v	veli
18. Distance from proposed location*	19. Propose	d Depth	20. BLM/	BIA Bond No. on file	
to nearest well, drilling, completed, applied for, on this lease, ft.			1		
	4000'		585716	100 5	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3592 GL	January 5,	imate date work will s	tart*	23. Estimated duration	n
3092 GC				8 days	
	24. Atta				
The following, completed in accordance with the requirements of Onsho	ore Oil and Gas	Order No.1, shall be at	tached to the	s form:	
1. Well plat certified by a registered surveyor.	!	4. Bond to cover th	e operation	s unless covered by an o	existing bond on file (see
2. A Drilling Plan.		Item 20 above).		•	•
 A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 	Lands, the	5. Operator certific 6. Such other site s authorized office	pecific inf	ormation and/or plans a	s may be required by the
25. Signature	Name	(Printed/Typed)			Date
Dances Bratcher	!	y Bratcher		12/6/05	
Title				-	
Land Department					
Approved by (Signature) /s/ Joe G. Lara	Name	(Printed:Typed/s/ J	oe G.	Lara	JAN 192
ACTIMELD MANAGER	Office	CARLSB	AD F	ELD OFFIC	F
Application approval does not warrant or certify that the applicant holds operations thereon.	legal or equita	ble title to those rights i	n the subjec	t lease which would entitle	e the applicant to conduct
Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make States any false, fictitious or fraudulent statements or representations as		ny person knowingly a			nt or agency of the United

*(Instructions on reverse)

Roswell Controlled Water Basin

APPROVAL SUBJECT TO

OF MERAL REQUIREMENTS AND

COAL STIPULATIONS

ATTACHED

WITHER : 838" CASTING CEMENT JOK

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 66240

Energy, Minerals and Natural Resources Department

DISTRICT II

DISTRICT IV

1301 W. GRAND AVENUE, ARTESIA, NM 68210

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505 Form C-102 Revised JUNE 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name	
	96836	RED LAKE; GLORIETA YESO, 1	NORTHEAST
Property Code		Property Name	Well Number
29793	A .	11	
OGRID No.		Operator Name	Elevation
14049	MARBOB E	NERGY CORPORATION	3592'

Surface Location

UL or lot No.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County
M	1	18-S	27-E		890	SOUTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or	Infill Co	nsolidation (Code Ore	der No.			I	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OK A NON-STAND	ARD UNIT HAS DE	EN AFFROVED DI III	
LOT 4	LOT 3	LOT 2	LOT 1	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
	 			Nancy Bratcher Nancy T. Bratcher
				Printed Name Land Department Title 12/6/2005 Date
-	 			SURVEYOR CERTIFICATION I hereby certify that the well location shown
				on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.
3577.0' / 3588.0'	GEODETIC COC	PRDINATES	 	NOVEMBER 7, 2005 Date Surveyed LA Signature & Seal of Company Professional Surveyor.
3586.1 3 3602.8'	NAD 27 Y=644387 X=529319	7.7 N		Small Schoon #1/10/05 105.11.1702
	LAT. = 32°46'1 LONG. = 104°14			Certificate No. RONALD J REDSON 3239

MARBOB ENERGY CORPORATION DRILLING AND OPERATIONS PROGRAM

AAO Federal No. 11 890' FSL & 660' FWL Section 1-T18S-R27E Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following ten items of pertinent information in accordance with BLM requirements.

- 1. The geological surface formation is Permian:
- 2. The estimated tops of geologic markers are as follows:

Permian	Surface	San Andres	1850′
Seven Rivers	450'	Glorietta	3250'
Oueen	1050′		

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Upper Permian Sands	180'	Fresh Water
Queen	1050'	Oil
San Andres	1850'	Oil
Glorietta	3250'	Oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8 5/8" casing at 350' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5 1/2" production casing which will be run at TD.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	<u>W</u> t	Grade	
12 1/4"	0 – 350′	8 5/8"	24#	J-55 LTC New R-3	
7 7/8"	350' – TD	5 1/2"	17#	J-55 LTC New R-3	

Proposed Cement Program:

8 5/8" Surface Casing: Cement w/ 300 sx Class C. Circulate to surface.

5 ½" Production Casing: Cement w/ 750 sx Class C.

5. Pressure Control Equipment: See Exhibit 1.

6. Mud Program: The applicable depths and properties of this system are as follows:

		Weight	Viscosity	Waterloss
Depth	Type	(ppg)	(sec)	(cc)
0 – 350′	Cut Brine	8.5	28	N.C.
350' - 4000'	Cut Brine	9.8 - 10.2	40 -45	N.C.

- 7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.
- 8. Testing, Logging and Coring Program:

No drillstem tests are anticipated.

The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csng Log, and Depth Control Log. No conventional coring is anticipated.

- 9. No abnormal pressures or temperatures are anticipated.
- 10. Anticipated starting date: As soon as possible after approval.

MARBOB ENERGY CORPORATION MULTI-POINT SURFACE USE AND OPERATIONS PLAN

AAO Federal No. 11 890' FSL & 660' FWL Section 1-T18S-R27E Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2.

DIRECTIONS:

From the intersection of U.S. Highway #82 and County Road #204 (Hilltop Road) go south east on County Road #204 for approx. 2.3 miles. Turn right and go west approx. 0.2 miles. Turn left and go south approx. 1.0 miles. Turn right and go west approx. 0.45 miles. Turn right and go north approx. 0.2 miles. This location is approx. 200 feet west.

2. PLANNED ACCESS ROAD:

No new access road is necessary.

3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. If well is productive, Marbob Energy Corporation will utilize the existing facility located on the AAO Federal #2 well pad.

4. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the lined pit.
- B. Drilling fluids will be allowed to evaporate in the lined pit until the pit is dry.
- C. Water produced during completion may be disposed into the lined reserve pit.
- D. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained to prevent scattering by the wind.

5. WELLSITE LAYOUT:

- A. Exhibit 3 shows the relative location and dimensions of the well pad, the pit.
- B. The reserve pit will be lined with high quality plastic sheeting.

6. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Reserve pit will be fenced until they have dried and been leveled.
- C. All rehabitation and/or vegetation requirements of the BLM will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level within 90 days after abandonment.

7. SURFACE OWNERSHIP:

The well site and lease are located on Federal surface

- A. The area around the well site is grassland and the top soil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- B. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

8. OTHER INFORMATION:

A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

9. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

B. Through Drilling Operations

Dean Chumbley, Landman Marbob Energy Corporation P. O. Box 227 Artesia, NM 88211-0227 Phone (505)748-3303 Cell (505)748-5988 Sheryl Baker, Drilling Supervisor Marbob Energy Corporation P. O. Box 227 Artesia, NM 88211-0227 Phone (505)748-3303 Cell (505)748-5489

10. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date

12/6/05

Nancy Bratcher

Land Department

MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- A. The hazards and characteristics of hydrogen sulfide (H_2S) .
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- A. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well Control Equipment:

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H₂S detection and monitoring equipment:

2 - portable H₂S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

D: Visual warning systems:

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

E. Mud Program:

The mud program has been designed to minimize the volume of H₂S circulated to the surface.

A mud-gas separator will be utilized.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

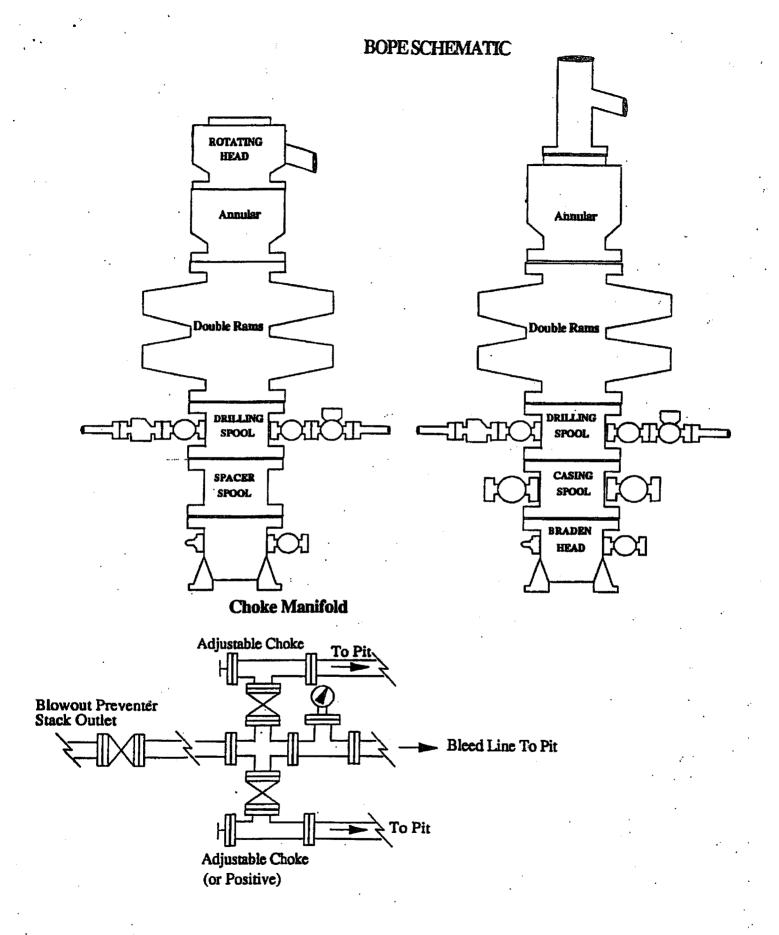
WARNING

YOU ARE ENTERING AN H₂S AREA AUTHORIZED PERSONNEL ONLY

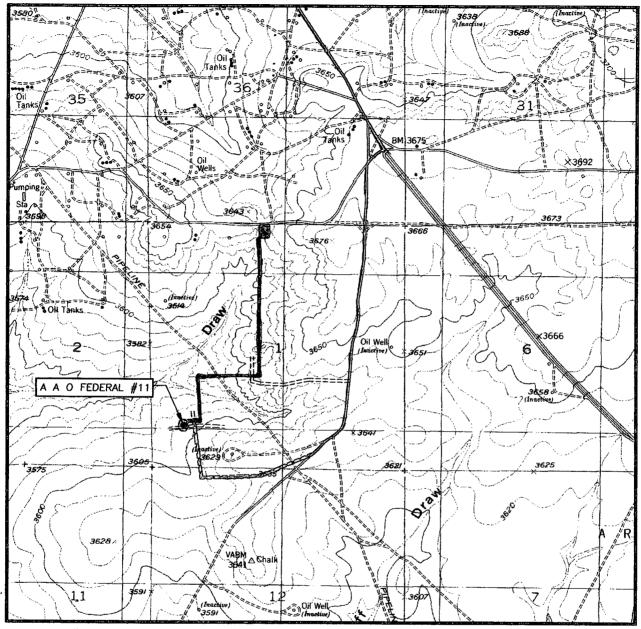
- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE

MARBOB ENERGY CORPORATION

1-505-748-3303



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 1 TWP. 18-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 890' FSL & 660' FWL

ELEVATION 3592'

MARBOB ENERGY

OPERATOR CORPORATION

LEASE A A O FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

RED LAKE, N.M.

CONTOUR INTERVAL: RED LAKE, N.M. - 10'

Existing Roads

Flowline



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117



CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

MARBOB ENERGY CORPORATION

Well Name & No.

11 - AAO FEDERAL

Location:

890' FSL & 660' FWL - SEC 1 - T18S - R27E - EDDY COUNTY

Lease:

NM-0557371

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5972 (Daytime) or (505) 361-2822 (After hours) -for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: 8-5/8 inch 5-1/2 inch
- C. BOP tests
- 2. There is no known occurrence of H2S gas in Sec 1 T18S R27E although H2S has been reported in Sections 7, 8, 9, 12, 13 and 15 T18S R27E.
- 3 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
- 5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

- 1. The <u>8-5/8</u> inch surface casing shall be set at <u>350 feet</u>, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>cement shall extend</u> <u>upward a minimum of 500 feet above the uppermost hydrocarbon bearing intervals.</u>

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the <u>8-5/8</u> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.



December 7, 2005

Oil Conservation Division 1301 W. Grand Ave. Artesia, NM 88210

Attention: Bryan Arrant

Re:

A A O Federal #11

890' FSL & 660' FWL, Unit N Section 1, T18S, R27E Eddy County, New Mexico RECEIVED

UEC _ 9 2005

Dear Bryan:

We plan to complete this well in the Yeso, which is sweet and <u>we don't anticipate</u> <u>cutting any formations that contain H2S gas</u> during the drilling of the above referenced well. Therefore, we do not believe that an H2S contingency plan is necessary.

If you have questions or need further information, please call.

Sincerely,

Mancy Bratcher

Nancy Bratcher Land Department

/nb