ATS-07-548
EA-07-1098

OCD-ARTESIA

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 07 2007
OCD-ARTESIA

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work ☑ DRILL ☐ REENTER	5 Lease Serial No. **NM-23002**
1b. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6 If Indian, Allotee or Tribe Name
2 Name of Operator **Marbob Energy Corporation** 14049	7 If Unit or CA Agreement, Name and No
3a Address **P.O. Box 227, Artesia, NM 88211-0228**	8 Lease Name and Well No. **Piper Federal #1** 36721
3b Phone No. *(include area code)* **505-748-3303**	9 API Well No 30-015-35788
4. Location of Well *(Report location clearly and in accordance with any State requirements *)* At surface **2310' FNL & 330' FEL** At proposed prod zone **Capitan Controlled Water Basin**	10 Field and Pool, or Exploratory **Lusk Bone Spring**
	11 Sec , T. R M or Blk and Survey or Area **Section 12, T19-S R31-E**
14 Distance in miles and direction from nearest town or post office* **About 15 Miles**	12 County or Parish **Eddy County** / 13 State **NM**

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) **2310'**	16 No of acres in lease **320**	17 Spacing Unit dedicated to this well **40**
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft **660'**	19 Proposed Depth **10600**	20 BLM/BIA Bond No. on file **NMB000412**
21 Elevations (Show whether DF, KDB, RT, GL, etc.) **3618** GL BA	22 Approximate date work will start* **08/06/2007**	23 Estimated duration **35 Days**

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, must be attached to this form

1 Well plat certified by a registered surveyor
2 A Drilling Plan
3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)
4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
5 Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25 Signature Nancy T. Agnew	Name *(Printed Typed)* **Nancy T. Agnew**	Date **07/06/2007**
Title **Land Department**		
Approved by *(Signature)* Stephen D Caffey	Name *(Printed/Typed)* Steve Caffey Actg	Date 9/5/07
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Date: July 6, 2007

Lease #: NM-23002
Piper Federal #1

Legal Description: Section 12, T19S, R31E
Eddy County, New Mexico

Formation(s): Permian

Bond Coverage: Statewide

BLM Bond File #: NMB000412

Marbob Energy Corporation

Nancy T. Agnew

Nancy T. Agnew
Land Department

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name

JUL 05 2007

Property Code	Property Name	Well Number
	PIPER FEDERAL	1

OGRID No.	Operator Name	Elevation
14049	MARBOB ENERGY CORPORATION	3618'

Surface Location

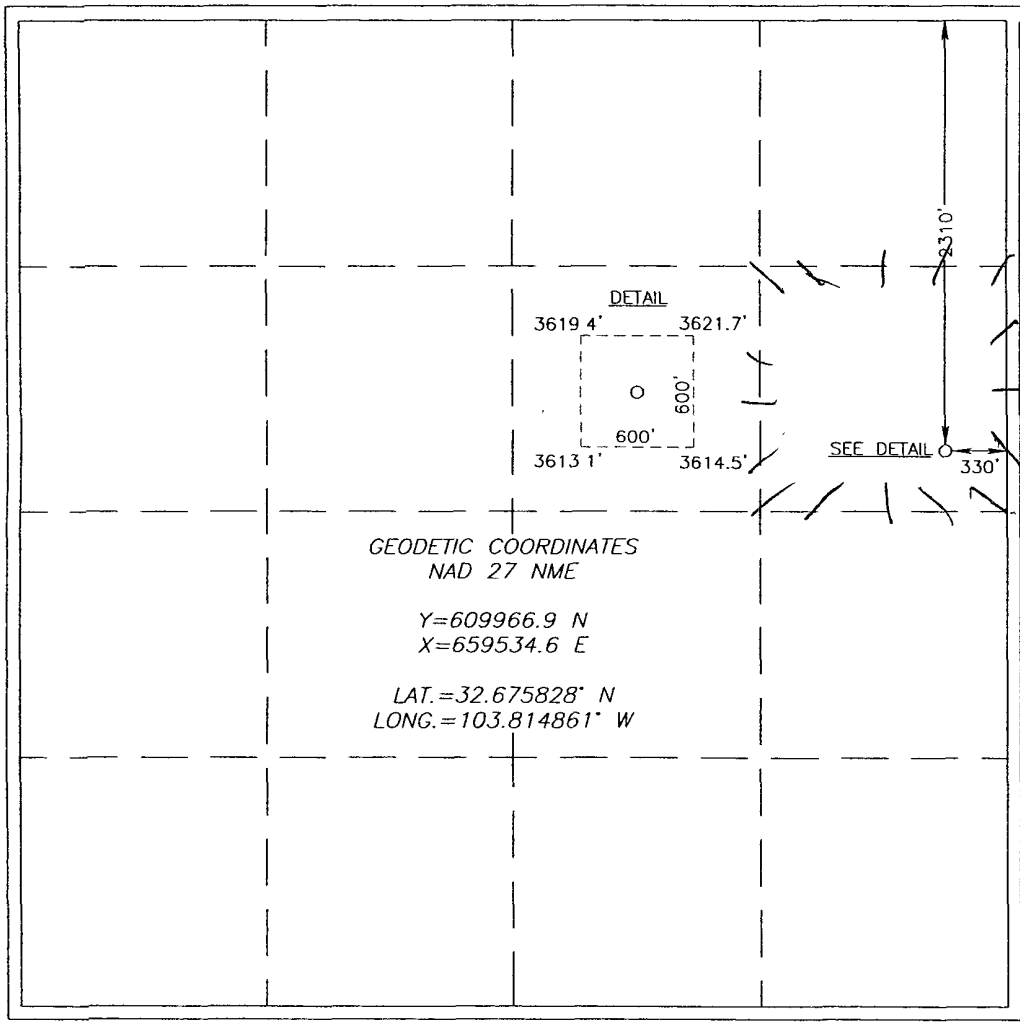
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	12	19-S	31-E		2310	NORTH	330	EAST	EDDY

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	Consolidation Code	Order No.
40			

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Nancy Agnew 7/6/07
Signature Date

Nancy Agnew
Printed Name

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 supervision, and that the same is true and correct to the best of my belief.

JUNE 27, 2007
Date Surveyed AR

Signature & Seal of Professional Surveyor

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

7/03/07

07.11.0814

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Piper Federal #1
2310' FNL & 330' FEL
Section 12, T19S, R31E
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:

Rustler	745		BSPGS	6830
Top of Salt	830		1st Sand	8060
Base of Salt	2400		2nd Sand	8860
Yates	2590		3rd Sand	9700
Queen	3495		WC	10160
SADR	4400		TD	10600
Delaware	4870			

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

Yates	2590	Oil & Gas
Delaware	4870	Oil & Gas
BSPGS	6830	Oil & Gas
1st Sand	8060	Oil & Gas
2nd Sand	8860	Oil & Gas
3rd Sand	9700	Oil & Gas
WC	10160	Oil & Gas

We propose to drl 17 1/2 inch hole to 775 ft w/fresh water, run 13 3/8 inch 54.5 lb J-55 csg, set at 775 ft w/775 sx cmt, circ to surface; drl 12 1/4 inch hole to 3450 feet with brine water (FW if lose cir.), run 9 5/8 inch 36 lb J-55 csg, set at 3450 ft w/900 sx cmt, TOC 500', drl 7 7/8 inch hole to 10600 feet with cut brine, run 5 ½ inch 17lb S95/P110 csg, set at 10600 ft w/400 sx cmt, TOC 3200'.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	Wt	Grade		New or Used	Collapse SF	Burst SF	Tension SF
17 ½"	775'	13 3/8"	54.5	J-55	STC	New	1.125	1.125	1.6
12 ¼"	3450'	9 5/8"	36	J-55	Buttress	New	1.125	1.125	1.6
7 7/8"	10600'	5 ½"	17	S95/P110	LTC	New	1.125	1.125	1.6

Proposed Cement Program:

Casing	Cement		Class	Yield
Surf: 13 3/8"	775 Sk.	Circulate to surface.	"C"	1.34
Int: 9 5/8"	900 Sk.	TOC 500'	"C" Light	1.92
Prod: 5 1/2"	400 Sk.	TOC 3200'	"H"	1.62
			"H" Light	1.92

Surf	775		100% Excess	
Int	800	Light	35% Excess	T Tail in W/ 100 C Neat
Prod	775	SK Light	15% Excess	T Tail in W/ 200 H

5. Pressure Control Equipment:

1. See Exhibit #1. Marbob proposes to nipple up on 13 3/8 with a 2M system and test to 1000 psi with rig pumps. Nipple up on 9 5/8 with a 5M system and test to 5000# with independent tester. Function Test Daily (Pipe Rams) Function Test on Trips (Blind Rams)

   ANTICIPATED BHP: 4600#

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

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 – 775'	Fresh Water	8.5	28	N.C.
775' – 3450'	Brine	9.8 - 9.10	28-36	N.C.
3450' – 10600'	Cut Brine	9.8 - 9.10	28-36	N.C.

7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.

8. Testing, Logging and Coring Program:

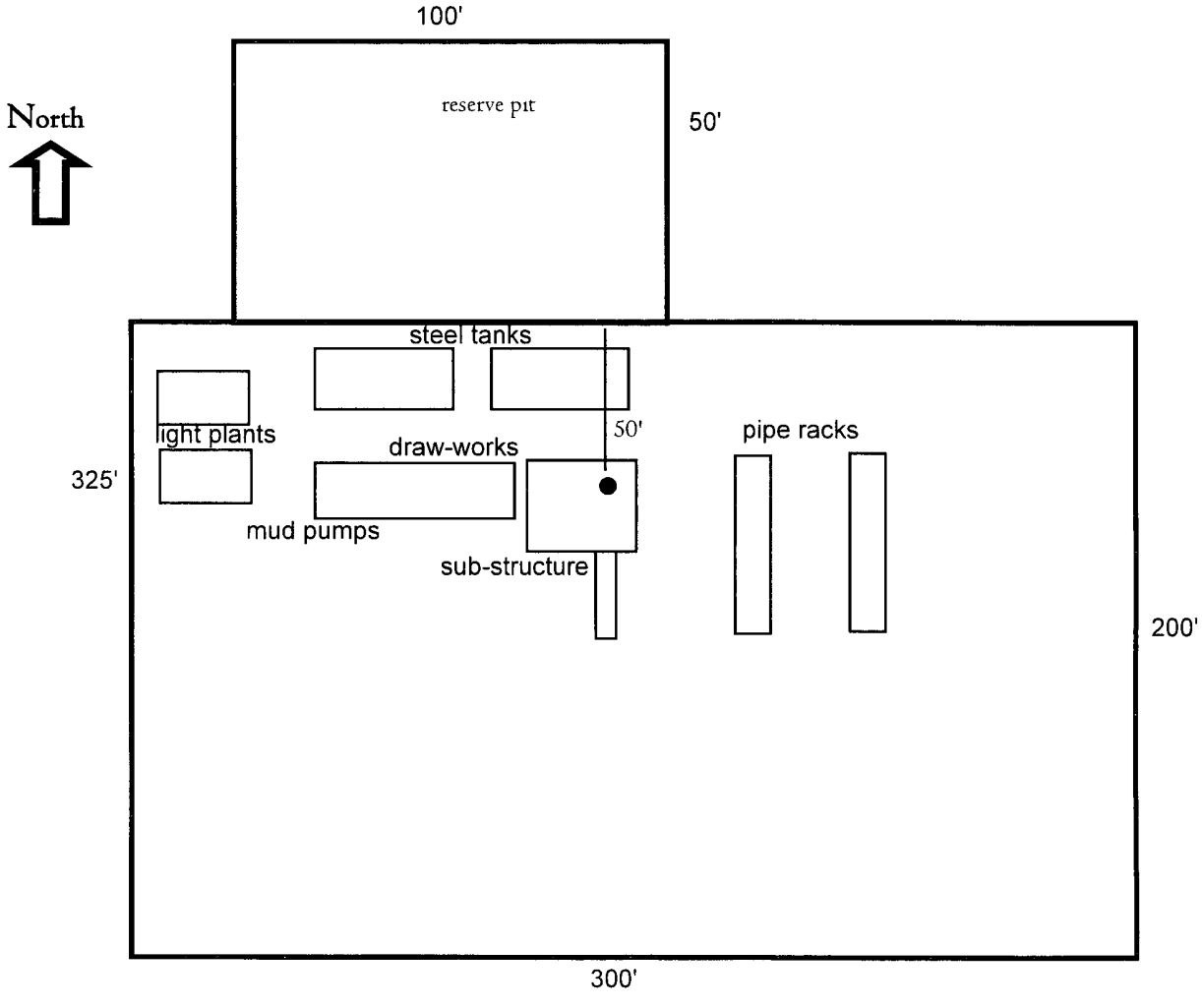
   No drillstem tests are anticipated.
   The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csng Log, and Depth Control Log.
   No conventional coring is anticipated.

9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date: As soon as possible after approval.

Well Site Lay-Out Plat

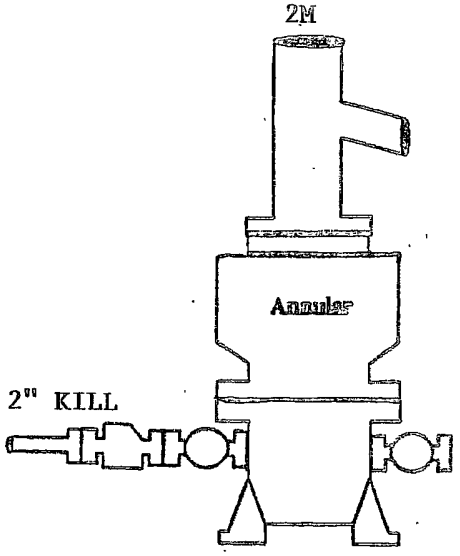
(Deep)

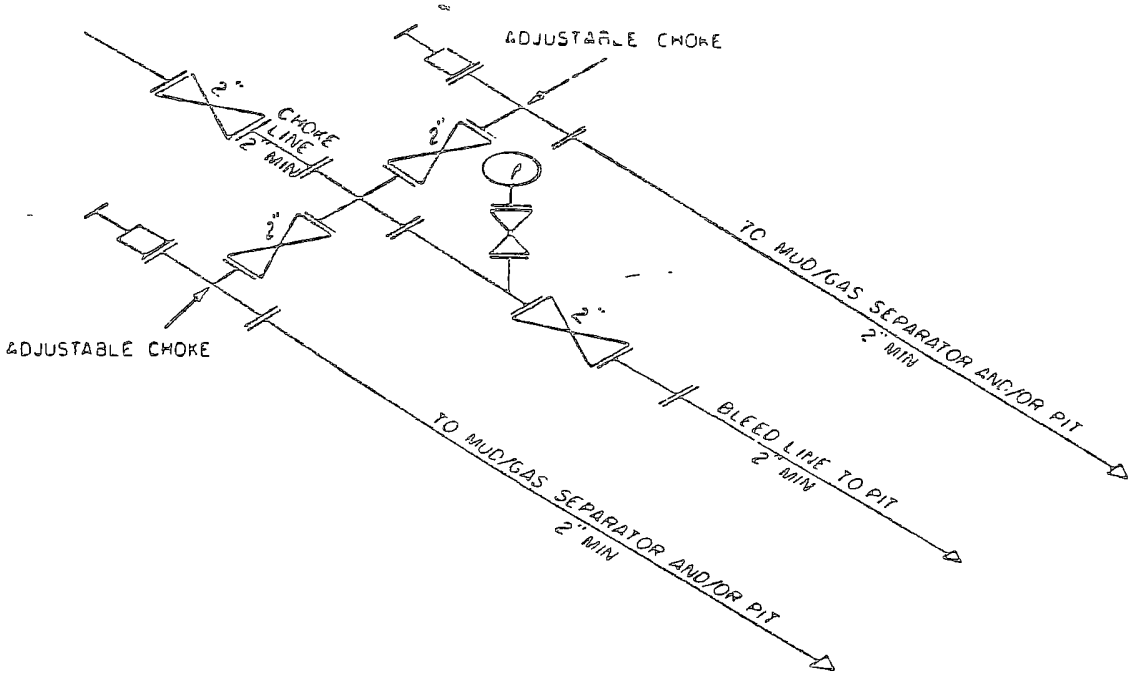


Piper Federal #1
2310' FNL & 330' FEL, Unit H
Section 12, T19S, R31E
Eddy County, New Mexico

EXHIBIT THREE

BOPE SCHEMATIC





2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

Exhibit One

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 H_2S 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 H_2S 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 H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S 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. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S 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 H_2S.

A. Well Control Equipment:

Flare line.

Choke manifold.

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

B. Protective equipment for essential personnel:

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

C. H_2S detection and monitoring equipment:

2 - portable H_2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H_2S 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 H_2S circulated to the surface.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H_2S service.

G. Communication:

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

W A R N I N G

YOU ARE ENTERING AN H_2S 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

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Piper Federal #1
2310' FNL & 330' FEL
Section 12, T19S, R31E
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 Co. Rd. #L-126 (Maljamar Rd.) and Co. Rd. #H-126 (Dry Lake Rd.), go north on Maljamar Rd. approx. 1.1 mile. Turn left and go southwest approx. 0.4 miles. Veer right and go west approx. 0.7 miles to beginning of trail road. Follow trail road northwest approx. 0.6 miles to road Lath. Turn right and go northeast approx. 500 feet to this location.

2. PLANNED ACCESS ROAD:

There will be a 515' of proposed access road:

A. The maximum width of the running surface will be 10'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.

B. The average grade will be less than 1%.

C. No turnouts are planned.

D. No culverts, cattleguard, gates, low-water crossings, or fence cuts are necessary.

E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM-approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.

F. The proposed access road as shown in Exhibit 2 has been centerline flagged by John West Engineering.

3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Marbob Energy Corporation proposes a collection facility, if well is productive, to be located on the Piper Federal #1 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:

William Miller, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)513-1068

B. Through Drilling Operations

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:

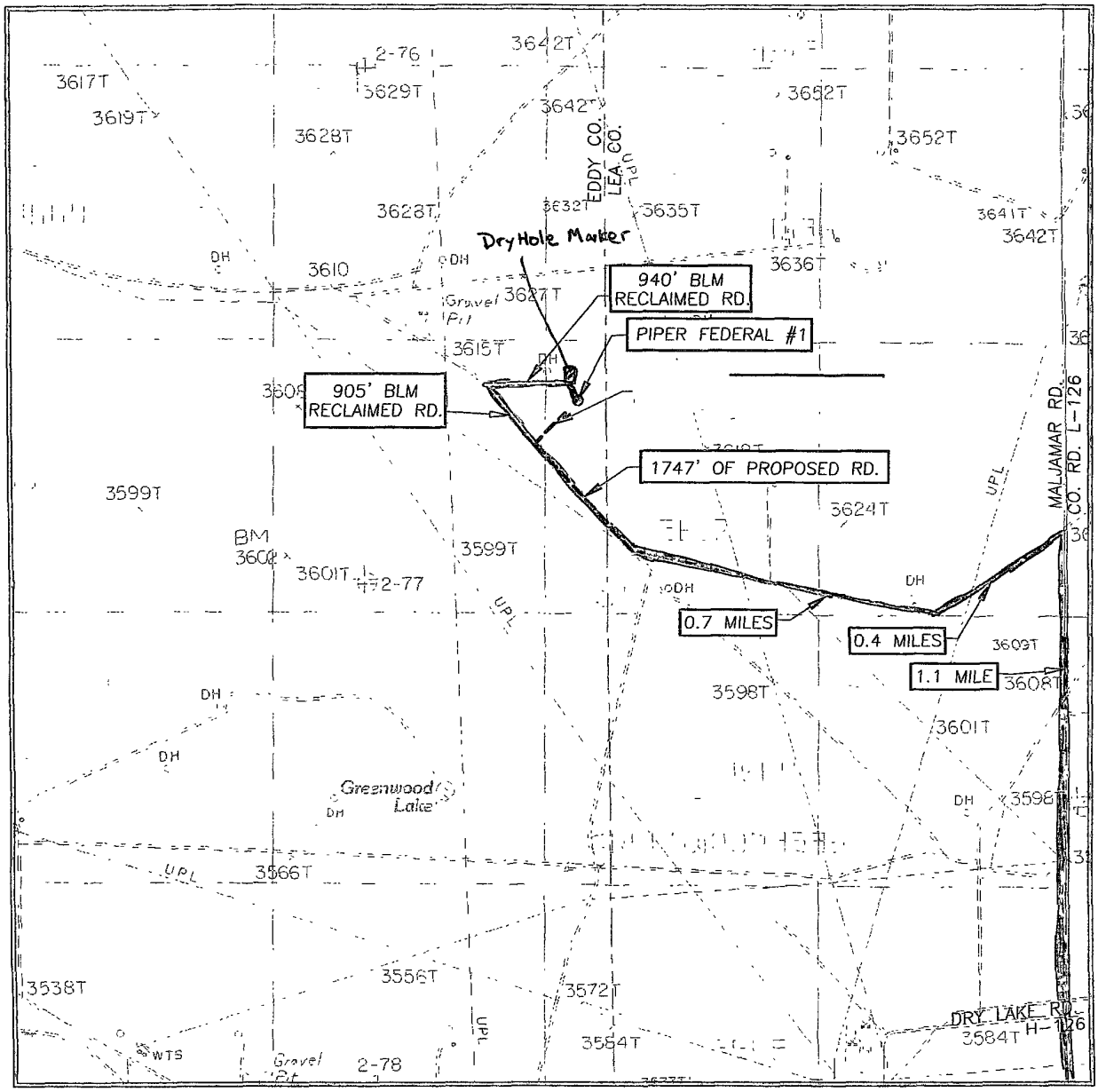
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated 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.

July 6, 2007
Date

Marbob Energy Corporation

William Miller
Land Department

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
GREENWOOD LAKE, N.M. – 10'

SEC. 12 TWP. 19-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2310' FNL & 330' FEL

ELEVATION 3618'

OPERATOR MARBOB ENERGY CORPORATION

LEASE PIPER FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
GREENWOOD LAKE, N.M.

Access Road

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

Exhibit #2

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**Marbob Energy Corp.**
Well Name & No.	**Piper Federal # 1**
Location:	**2310'FNL, 330'FEL, SEC12, T19S, R31E, Eddy County, NM**
Lease:	**NM-23002**

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

1. Spudding well
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822

B. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Yates** formation..

C. 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.

D. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The **13.375** inch surface casing shall be set at **775** **feet** and cemented to the surface.

1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
4. If cement falls back, remedial action will be done prior to drilling out that string.

B. The minimum required fill of cement behind the **9.625** inch intermediate casing is circulating cement to 275 feet above the shoe of the 13.375 inch casing. If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **5.5** inch production casing is circulating cement to 250 feet above the shoe of the _9.625 inch_ intermediate casing.

D. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.

III. PRESSURE CONTROL:

A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.

B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be _**2000**_ psi.

C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9.625 inch** Intermediate casing shoe shall be _3000_ psi.

D. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53, section 17. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
5. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
6. A variance to test the surface casing and BOP/BOPE to the reduced pressure of **1000** psi with the rig pumps is approved.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well

V. Hazards:

1. Our geologist has indicated that there is potential for lost circulation in the Artesia group and in the Capitan Reef if it is encountered.
2. Our geologist has indicated that there is potential for flows in the Artesia and Salado groups.
3. Our geologist has indicated that there is potential for abnormal pressure in the Wolfcamp formation.

Engineering can be reached at 505-706-2779 for variances.

FWright 7/20/07