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OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTMonth - Year
MAR 26 2007
OCD-ARTESIA, NMFORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

ATS-07-311

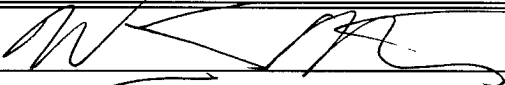
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. 18613A
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Marbob Energy Corporation		7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 227, Artesia, NM 88211-0227		8. Lease Name and Well No. Woody's Hope Federal Com 36413
3b. Phone No. (include area code) 505-748-3303		9. API Well No. 30-015-35495
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660 FNL 660FEL At proposed prod. zone CARLSBAD CONTROLLED WATER BASIN		10. Field and Pool, or Exploratory Black River, Morrow, South
14. Distance in miles and direction from nearest town or post office*		11. Sec., T., R., M., or Blk. and Survey or Area Section 24, T-24S, R-27E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	12. County or Parish Eddy
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 13100'	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3105' Ground Level	22. Approximate date work will start* 3/18/2007	17. Spacing Unit dedicated to this well 320 acres
23. Estimated duration 21 days		20. BLM/BIA Bond No. on file 585716 NM 2056

24. Attachments

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

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

25. Signature 	Name (Printed Typed) William Miller	Date 2/13/2007
Title Land Department		
Approved by (Signature) /s/ Don Peterson	Name (Printed Typed)	Date MAR 22 2007
Title ACTING FIELD MANAGER		Office BLM-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 1 YEAR

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 reverse)

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHEDIf earthen pits are used in
association with the drilling of this
well, an OCD pit permit must be
obtained prior to pit construction.

DISTRICT I
1624 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97352	Pool Name Black River, Merrow, South
Property Code	Property Name WOODY'S HOPE FEDERAL COM	Well Number 1
OGRID No.	Operator Name MARBOB ENERGY CORPORATION	Elevation 3105'

Surface Location

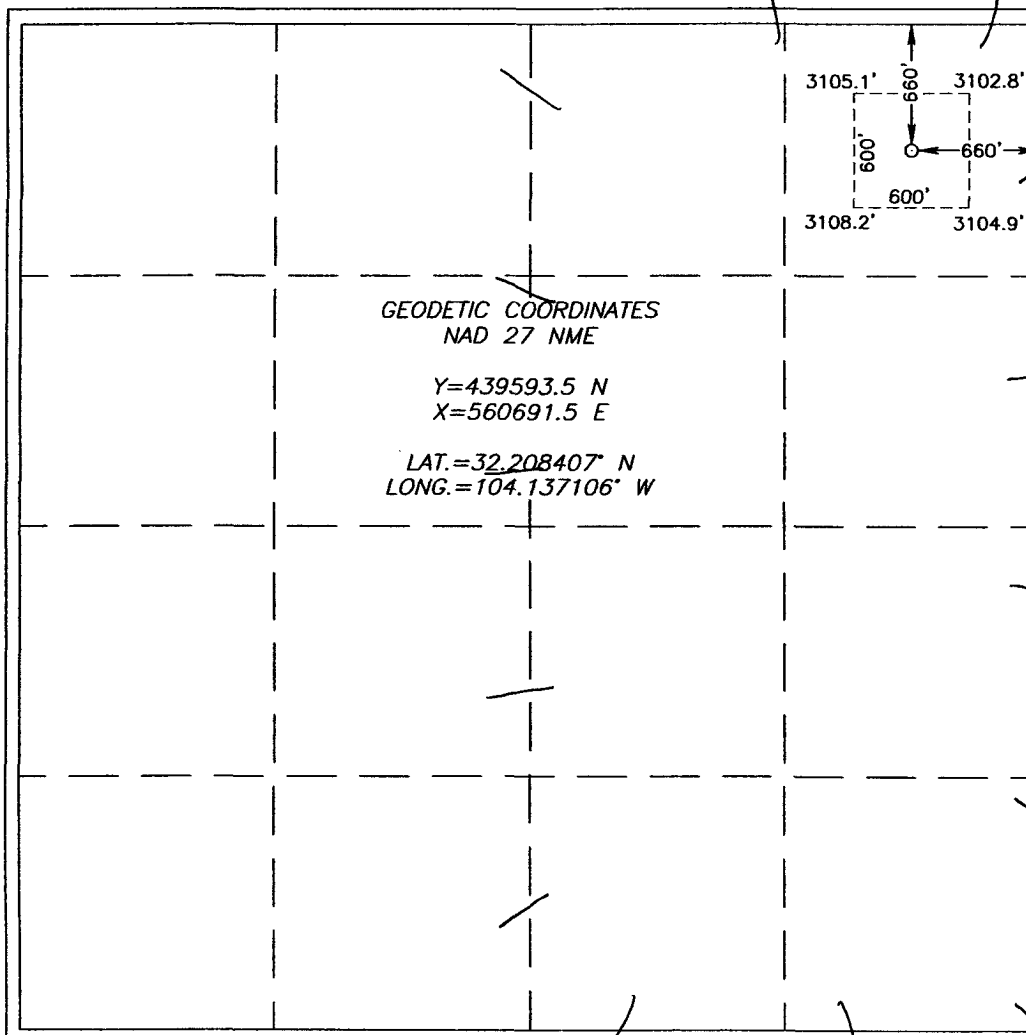
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	24	24-S	27-E		660	NORTH	660	EAST	EDDY

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 32.0	Joint or Infill	Consolidation Code	Order No.
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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. Signature: <u>William Miller</u> Date: <u>2-12-07</u> Printed Name: <u>William Miller</u>
	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. JANUARY 12, 2007 Date Surveyed: <u>07.11.0063</u> AR Signature & Seal of Professional Surveyor: <u>Gary E. Eison</u> 1/22/07 Certificate No. GARY EIDSON 12641

MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Woody's Hope Federal Com
660' FNL & 660' FEL
Section 24-T24S-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:

Top of Salt	900'	Strawn	11350'
Base of Salt	2350'	Atoka	11600'
Delaware	2500'	Morrow	12400'
Bone Spring	6350'	TD	13100'
Wolfcamp	9800'		

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

Delaware	2500'	Oil
Bone Spring	6350'	Oil
Wolfcamp	9800'	Oil
Strawn	11350'	Oil
Atoka	11600'	Gas
Morrow	12400'	Gas

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 13 3/8" casing at 400' 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 4 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons above 200'.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	Wt	Grade
17 1/2"	0 - 400'	13 3/8"	48#	H-40
12 1/4"	0 - 2450'	9 5/8"	36#	J-55
8 3/4"	0 - 9800'	7"	23#	L80 / P 110
6 1/8"	0 - 13100'	4 1/2"	11.6#	S95 / P110

5. Proposed Cement Program:

- 13 3/8" Surface Casing: Cement w/ 400 sx Class C. Circulate to surface.
- 9 5/8" Intermediate Casing: Cement w/ 450 sx Class C. Circulate to surface.
- 7" Intermediate Casing: Cement w/ 900 sx Class C. Attempt to tie into 9 5/8".
- 4 1/2" Production Casing: Cement w/ 900 sx Class C. Will bring TOC 200' above all oil and gas bearing zones.

5. Pressure Control Equipment: See Exhibit 1. Marbob proposes to nipple up on the 13 3/8" casing with a 2M system, testing it to 1000# with rig pumps, then nipple up on the 7" casing with a 5M system, tested to 5000# before drilling out.

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

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 - 400'	Fresh Wtr	8.4 - 9.2	32 - 36	N.C.
400 - 2450'	Brine	9.9 - 10.2	28 - 32	N.C.
2450 - 9800'	Cut Brine	8.8 - 9.2	28 - 32	N.C.
9800 - 13100'	Cut Brine	9.9 - 10.2	28 - 32	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 Csg 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

Woody's Hope Federal Com
660' FNL & 660' FEL
Section 24-T24S-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 County Road 720 (Black River Village Rd.) and County Road 774 (Roadrunner Road) go southwest on County Road 774 approximately 1.5 miles to proposed road survey on the left. Follow proposed road survey east approximately 930' to proposed location.

2. PLANNED ACCESS ROAD:

A new access road of 927' will be necessary. The new road will be constructed as follows:

- 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 Woody's Hope Federal Com 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 rehabilitation 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:

Ross Duncan, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)513-2544

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.

2/14/07
Date


Ross Duncan
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 (H₂S).
- 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.

W A R N I N G

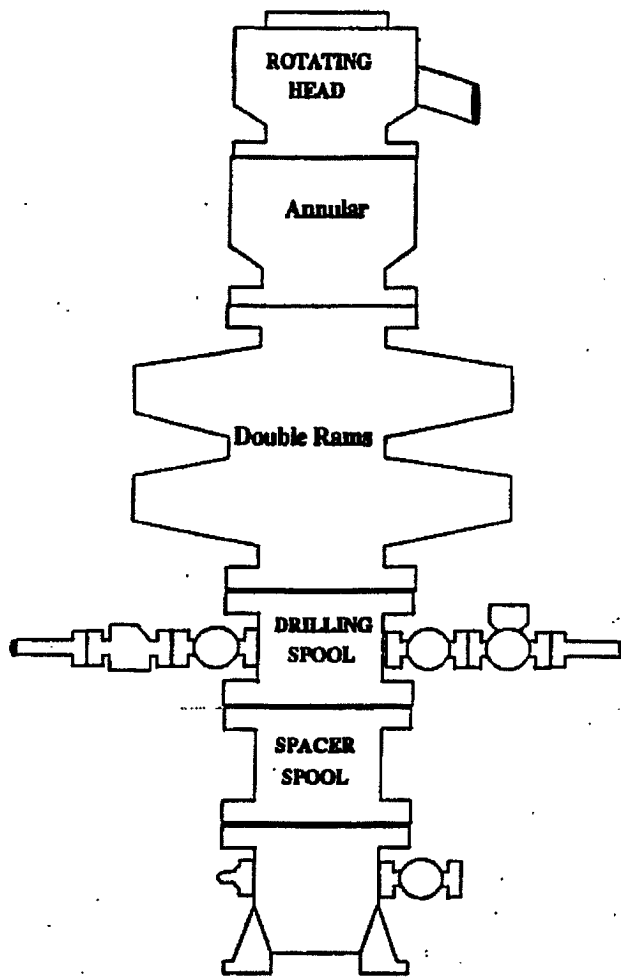
**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 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**

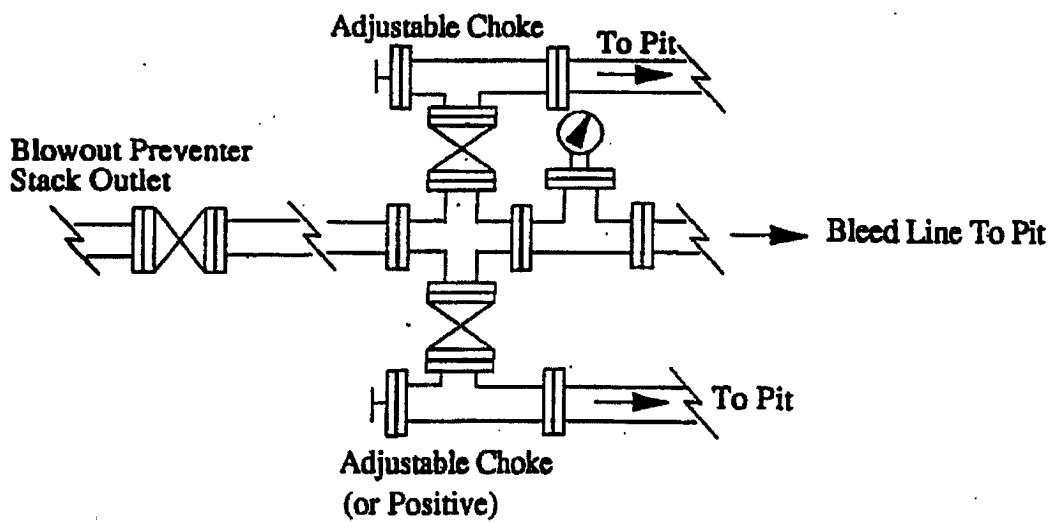
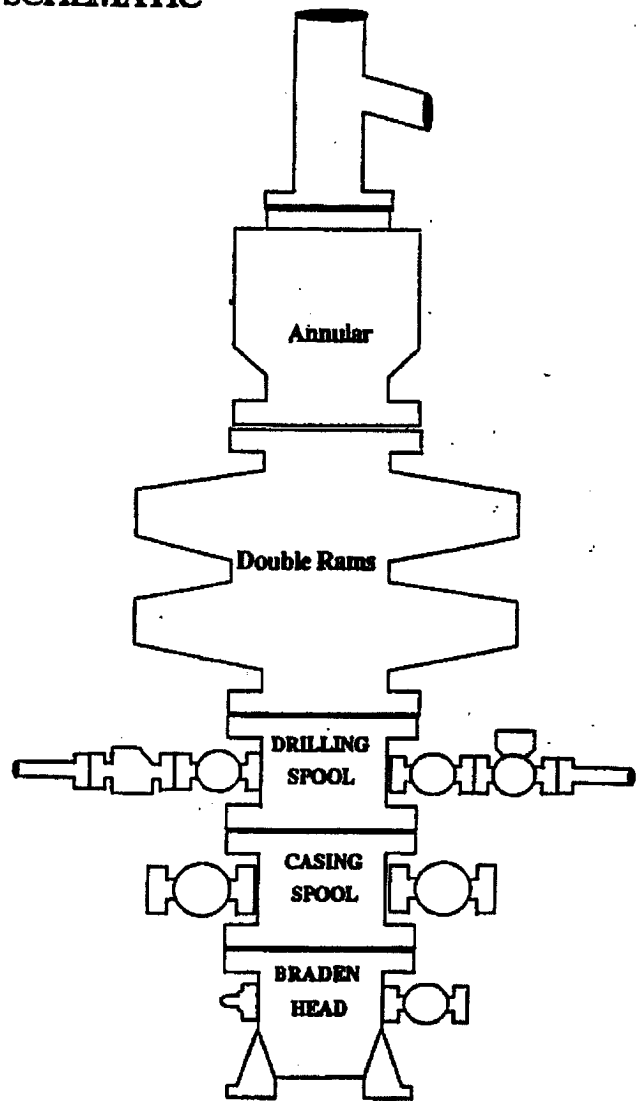
MARBOB ENERGY CORPORATION

1-505-748-3303

BOPE SCHEMATIC



Choke Manifold



CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Marbob Energy Corp
Well Name & No. Woody's Hope Federal Com # 1
Location: 660'FNL, 660'FEL, SEC24, T24S, R27E, Eddy County, NM
Lease: NM-18613A

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance, at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - 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:

1. Spudding
2. Cementing casing: 13.375 inch 9.625 inch 7 inch, 4.5 inch
3. BOP tests

B. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated prior to drilling into the **Delaware** group. A copy of the plan shall be posted at the drilling site.

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. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute. (R-111-P area only)

E. 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 **approximately 400 feet** and cement circulated 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 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, which ever is greater. (This is to include the lead cement)
3. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds of compression strength, which ever is greater.
4. If cement falls back, Remedial cementing shall be completed prior to drilling out that string.

B. The minimum required fill of cement behind the 9.625 inch salt protection casing is **circulate cement to the surface.** If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the 7 inch intermediate casing is **circulate cement to at least 200 feet inside of the 9.625 inch salt protection casing.**

D. The minimum required fill of cement behind the 4.5 inch production casing is **cement shall extend upward a minimum of 200 feet above the base of the intermediate casing string.**

E. 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 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. and in API RP53.
- B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe (**13.375 inch**) shall be **2000 (2M)** 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, **Salt protection casing**, shall be **3000 (3M)** PSI.
- D. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the (**7 inch**) second Intermediate casing shoe shall be **5000 (5M)** PSI.
- E. 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 the 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. The test will be held for a minimum of 10 minutes if the test is done with a test plug and 30 minutes without a test plug.
 5. BOP/BOPE must be tested by an independent service 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 **2M BOP and 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. Monitoring equipment shall consist of the following:

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.

Engineering may be contacted at 505-706-2779 for variances if necessary.

FWright 2/20/07