Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

SEP 2001 RECEIVED OIL CON. DIV DIST. 3

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Designation and Serial No.
NMNM-99728

6. If Indian, Allottee or Tribe Name

1a. Type of Work ☒ DRILL ☐ REENTER

7. If Unit or CA, Agreement, Name and No. 28894

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Bois d' Arc Cejita Blanca 33 # 1

2. Name of Operator
Synergy Operating, LLC (agent for Bois d' Arc Offshore, Ltd) 163458

9. API Well No.
30-043-20951

3a. Address
PO Box 5513
Farmington, NM 87499

3b. Phone Number
(505) 325-5449

10. Field and Pool, or Exploratory
WC21N5W33M; Mesaverde

4. Location of Well (Footage, Sec, T. R., M, or Survey Description)
At surface: Unit Letter M, 960' FSL, 700' FWL, Sec 33, T21N-R05W
At proposed prod. Zone: Same

11. Sec., T., R., M., or Blk. and Survey or Area
M Sec 33, T-21-N, R-05-W

14. Distance in miles and direction from nearest town or post office*
11 Miles West of Johnson Trading Post

12. County or Parish,
Sandoval

13. State
New Mexico

15. Distance from proposed* location to nearest propety or lease line, ft. (Also to nearest drlg. Unit line, if any)
960 Feet from South Line

16. No of Acres in lease
1280 Acres

17. Spacing Unit dedicated to this well
160 Acres SW

18. Distance from proposed* location to nearest propety or lease line, ft.
700 Feet from West Line

19. Proposed Depth
3160'

20. BLM/BIA Bond No. on file
NM-2559

21. Elevation (Show whether DF, KDB, RT, GL, etc.)
6850' Ground Level

22. Approximate date work will start*
November 1, 2001

23. Estimated duration
60 days

## 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.
2. A Drilling Plan
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.
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 authorized officer

| Size of Hole | Grade, Size of Casing | Weight per Foot | Setting Depth | Quantity of Cement |
|---|---|---|---|---|
| 12-1/4" | 8-5/8" K-55 | 24 # | 150' | 210 sxs, 245 ft3 |
| 7-7/8" | 5-1/2" K-55 | 15.5# | 3160' | 570 sxs, 1410 ft3 |
| | | | | |
| | | | | |

SEE ATTACHED APD INFORMATION

Latitude: 36 deg, 00 min, 06 sec N
Longitude: 107 deg, 22 min, 30 sec W

25. Signature

Name(Printed/Typed): Thomas E. Mullins

Date: 8-3-2001

Title: Engineering Manager

Approved by (Signature): /s/ David R. Sitzler

Name(Printed/Typed):

Date: SEP 14 2001

Title: Acting Asst. Field Mgr.

Office:

Application approval does not warrant or certify 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.

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, ficticious, or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

2 of 4

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| 1 API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-043-20951 | 97131 | Wc 21N 5W 33M; Mesaverde |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 28894 | CEJITA BLANCA 33 | 1 |

| 7 OGRID No. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 163458 | BOIS d' ARC Offshore, Inc. | 6850 |

## 10 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 | 33 | 21-N | 5-W | | 960 | SOUTH | 700 | WEST | SANDOVAL |

## 11 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| | | | |

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

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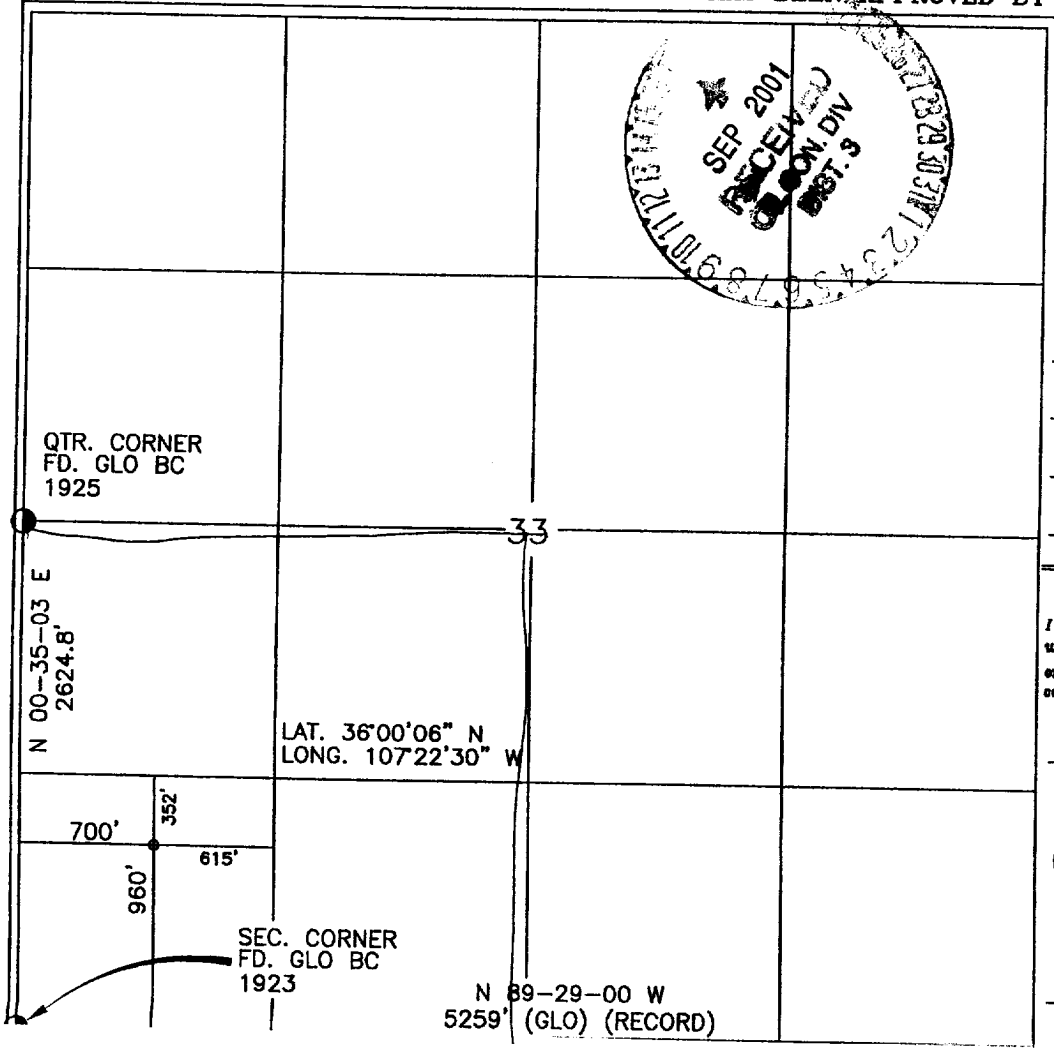



## 17 OPERATOR CERTIFICATION

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief*

Signature

THOMAS E. MULLINS
Printed Name

ENGINEERING MANAGER
Title

8-3-2001
Date

## 18 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.*

6-18-01
Date of Survey

Signature and Seal of Professional Surveyor:

ROY A. RUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

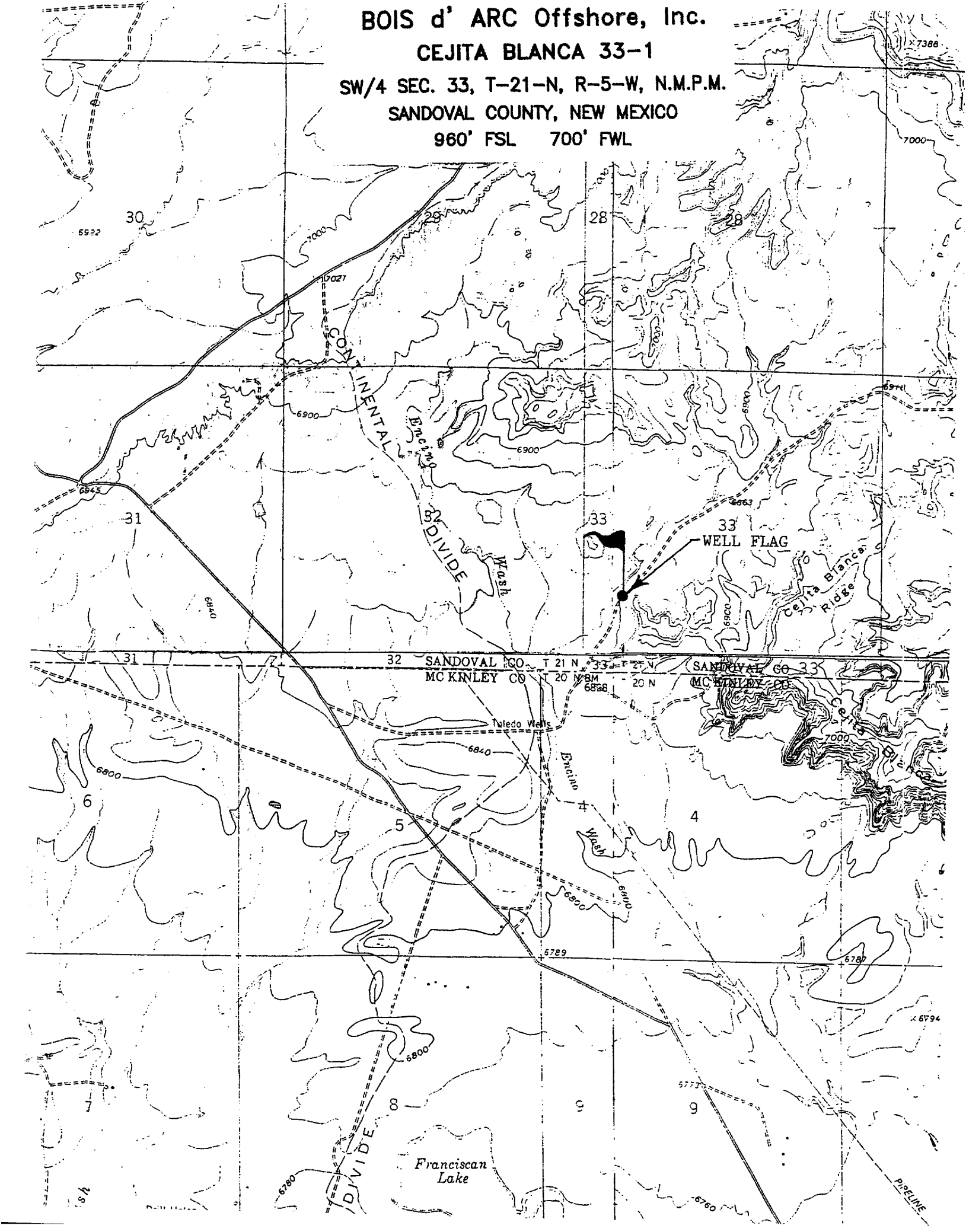
# BOIS d' ARC Offshore, Inc.

## CEJITA BLANCA 33-1

SW/4 SEC. 33, T-21-N, R-5-W, N.M.P.M.

SANDOVAL COUNTY, NEW MEXICO

960' FSL 700' FWL



**WELL NAME:** **Bois d' Arc Cejita Blanca 33 # 1**

**DRILLING PROGNOSIS**

1. Location of Proposed Well: Unit M, 960' FSL & 700' FWL
   Section 33, T21N, R05W

2. Unprepared Ground Elevation: @ 6850 '.

3. The geological name of the surface formation is Nacimiento.

4. Type of drilling tools will be Rotary.

5. Proposed drilling depth is 3160'.

6. The estimated tops of important geologic markers are as follows:

| | | | |
|---|---|---|---|
| Nacimiento - | | Chacra - | 1210' |
| Ojo Alamo - | | La Ventana (Cliffhouse) - | 1500' |
| Kirtland - | 520' | Meneffe - | 2160' |
| Fruitland Coal- | 790' | Pt. Lookout - | 3120' |
| Pictured Cliffs - | 800' | T. D. - | 3160' |
| Lewis Shale - | 1040' | | |

7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

| Oil and Gas Zones | | Water Zones | | Coal Zones | |
|---|---|---|---|---|---|
| Meneffe | 2160' | Pictured Cliffs | 800' | Fruitland | 790' |
| Pt. Lookout | 3120' | Cliffhouse | 1500' | Meneffe | 2160' |

8. The proposed casing program is as follows:

   Surface String: 8-5/8", 24#, J/K-55 @ 150' *
   Production String: 5-1/2", 15.5# J/K-55 @ 3160' (see details below)

   * The surface casing will be set at a minimum of 150', but could be set deeper if required to maintain hole stablity.

15.6 ppg) with 3 percent CaCl in mix water and ¼# sack celloflake. Volume is based upon 200% excess. A wooden wiper plug will be displaced within 20' of the shoe. This casing string will be cemented to surface.

Production String: **Lead Cement:** 463 sxs Class A cement. Cement to surface - 150% excess casing/hole annular volume w/ Type III cement + 0.25#/sx Cello-flake + 5#/sx LCM-1 + 8% bwoc Bentonite + 3% bwoc Potassium Chloride mixed at 12.2 ppg. (2.48 cf/sx yield = 1,381 cf)

**Tail:** 150 sxs Premium Lite High Strength FM + 0.25#/sx Cello-flake + 3% Potassium Choride + 0.3% bwoc CD-32 + 0.7% bwoc Fl-52 mixed at 12.5 ppg. (2.02 cf/sx yield = 303 cf)

A Guide Shoe, and autofill float collar will be run 20' off of bottom.

Note: Synergy continues to work to improve the cement slurries on our wells. Any modifications to cement will be of equivalent total volume, but would have better mechanical properties than the cement we are currently using.

Centralizer Program:

Surface: Total four (4) minimum - 10' above shoe and top of 2nd, 3rd, & 4th jts. If 20' surface casing joints are used, then ten (10) centralizers will be run, one at each collar.

Production: Total seven (7) - 10' above shoe and top of 1st, 2nd, 4th, 6th, 8th, & 10th jts. a cement basket will be run above the Pictured Cliffs, with turbolators above and below it.

Turbulators: Total two (2) - one at 1st jt below Pictured Cliffs and 1 jt above the turbolator.

10. A 3000# Blow-Out Preventer System will be used for this well, consisting of the following items:

2 Hydraulic Rams (Pipe & Blind) or Hydraulic and Annular with Blind Ram on Bottom.
1- Kill Line (2-inch minimum)
1- Kill Line Valve (2-inch minimum)
1 – Choke Line Valve
2 chokes (refer to diagram in Attachment) on Choke Manifold
Upper kelly cock valve in open position with handle available
Safety Valve (in open position) and subs to fit all drill strings in use (with handle available)

Pressure gauged choke manifold
2 inch minimum choke line
Fill-up line above the uppermost preventer

The BOP equipment will be pressure and function tested according to Onshore Order # 2 – III.A-1 with a 30% safety factor. Please see that attached diagram.

11. Drilling Mud Prognosis:

| Depth | Type | Wt./ppg. | Vis., | Fluid Loss | pH |
|---|---|---|---|---|---|
| 0'-350' | FW gel/lime spud mud | 8.4 – 8.7 | 30-50 | NC | 10 |
| 350'- TD | Low solids non-dispersed | 8.4 - 9.0 | 30-40 | <20 cc's | 9.5-10 |

Sufficient material needed to maintain mud properties, control loss circulation, and absorbent materials to contain any unforeseen pressure control situations will be maintained at the wellsite during all drilling operations. A mud logging unit w/ gas detector as well as a mud pit level indicator will be used out from under surface to TD.

12. The testing, logging, and coring programs are as follows:

D.S.T.s or cores: Rotary Full Cores are planned, depths to be determined based upon mud logger and hole conditions..

Logs: Mud logger out from under Surface to TD, Openhole Logs to include SP, Induction, Density, & Neutron. Additional logs may be run.

13. No Anticipated or abnormal pressures or temperatures should be encountered. No hydrogen sulfide is present or anticipated.

Estimated Bottomhole pressures: Pt. Lookout is - +/- 1350 psi

Surface casing and BOPE equipment will be tested to 1500 psi prior to drilling of the shoe. 3000# BOPE equipment will be utilized during production hole drilling operations.

14. The anticipated starting date is sometime in the 4th Qtr 2001 with duration of drilling operations for approximately 10 days thereafter. Completion Operations should take 10 days. Production Equipment will be installed and the well production tested based upon completion results.