

New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

POTASH

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

691

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

5. Lease Serial No.

NM-01135

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

South Lusk 33 Federal #2

9. API Well No.

30-025-36438

10. Field and Pool, or Exploratory
Lusk, Morrow, East

11. Sec., T., R., M., or Blk. and Survey or Area

Sect. 33, T-19S, R-32E

12. County or Parish
Lea

13. State
NM

1a. Type of Work: ☒ DRILL ☐ REENTER

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

2. Name of Operator

Cabal Energy Corporation

3a. Address 415 W. Wall, Suite 1700
Midland, TX 79701

3b. Phone No. (include area code)
(432) 682-0440

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 2000' FNL & 70' FEL

At proposed prod. zone 1330' FSL & 1330' FEL

R-111-P Potash

14. Distance in miles and direction from nearest town or post office*

17 miles south of Maljamar

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

1330'

16. No. of Acres in lease
639.12

17. Spacing Unit dedicated to this well
320 acres (E/2) Sect. 33

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

1910'

19. Proposed Depth
12,800'

20. BLM/BIA Bond No. on file
NM 2860

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3553' GL

22. Approximate date work will start*

July 27, 2003

23. Estimated duration

45 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.

25. Signature

Randell K. Ford

Name (Printed/Typed)

Randell K. Ford

Date

June 9, 2003

Title

President

Approved by (Signature)

/S/ RICHARD A. WHITLEY

Name (Printed/Typed)

/S/ RICHARD A. WHITLEY

Date

JUL 28 2003

Title

STATE DIRECTOR

Office

NM STATE OFFICE

Application approval does not warrant or certify the 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)

SUBJECT TO LIKE APPROVAL BY STATE

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

OPER. OGRID NO. 194930
PROPERTY NO. 32512
POOL CODE 80770
EFF. DATE 10-3-03
API NO. 30-025-36438

Capitan Controlled Water Basin

APR 2003

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-36438	Pool Code 80770	Pool Name Lusk; Morrow, East
Property Code 32512	Property Name SOUTH LUSK "33" FEDERAL	Well Number 2
OGRID No. 194930	Operator Name CABAL ENERGY CORPORATION	Elevation 3553'

Surface Location

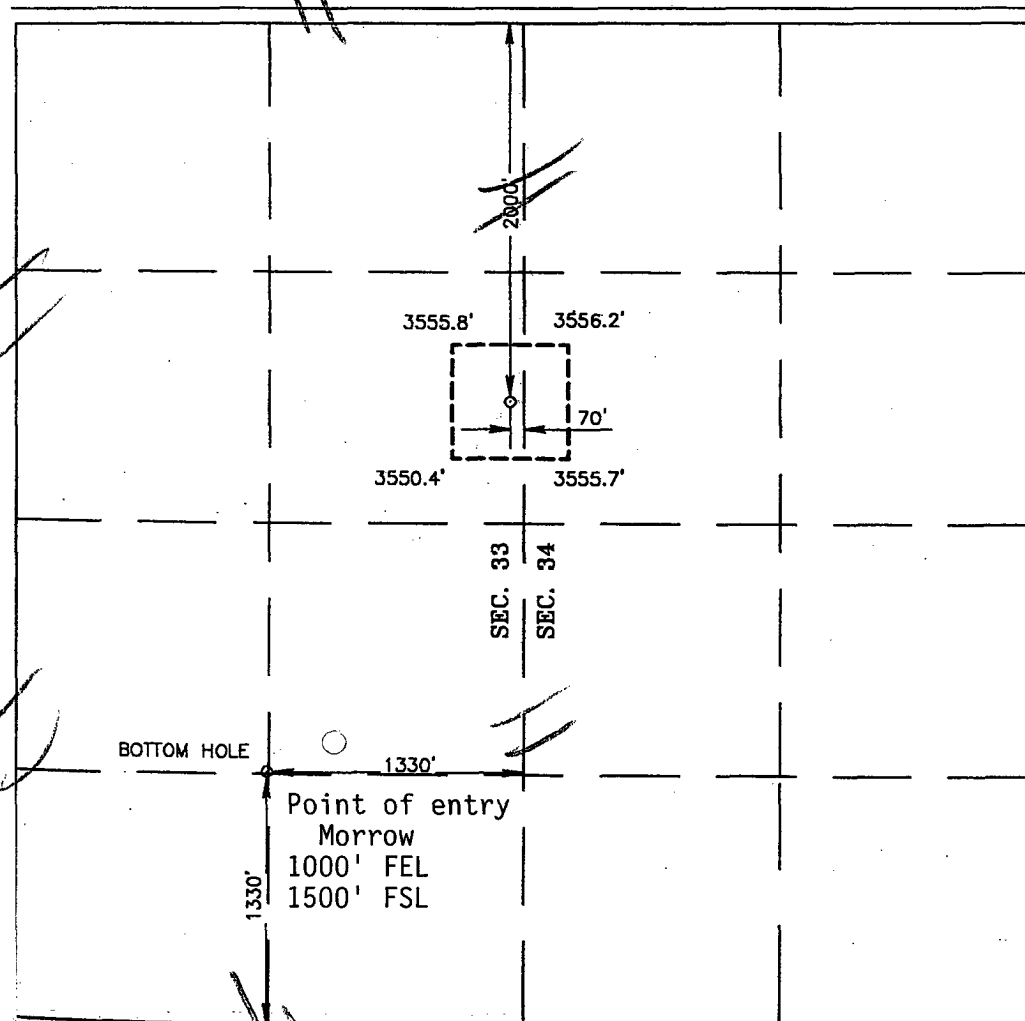
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	33	19-S	32-E		2000	NORTH	70	EAST	LEA

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
J	33	19-S	32-E		1330	SOUTH	1330	EAST	LEA

Dedicated Acres 320	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 contained herein is true and complete to the best of my knowledge and belief.

Signature

Randell K. Ford

Printed Name

President

Title

4-23-03

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

APRIL 17, 2003

Date Surveyed
Signature & Seal of
Professional Surveyor

LMP

Randell K. Ford
4/24/03
03.11.0420

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12841

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

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Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>2000'</p> <p>3555.8' 3556.2'</p> <p>70'</p> <p>3550.4' 3555.7'</p> <p>SEC. 33 SEC. 34</p> <p>BOTTOM HOLE</p> <p>1330'</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Randell K Ford</i></p> <p>Signature</p> <p>Randell K. Ford</p> <p>Printed Name</p> <p>President</p> <p>Title</p> <p>4-23-03</p> <p>Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>APRIL 17, 2003</p> <p>Date Surveyed</p> <p><i>Randell K Ford</i></p> <p>Signature & Seal of Professional Surveyor</p> <p>03.11.0420</p> <p>Certificate No. RONALD J. EIDSON 3239 CARY EIDSON 12641</p>
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DRILLING PROGRAM

CABAL ENERGY CORPORATION
SOUTH LUSK "33" FEDERAL #2

Section 33, T-19-S, R-32-E
Lea County, New Mexico

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Orders #1 and #2, and all other applicable federal and state regulations.

1. ESTIMATED TOPS OF GEOLOGIC MARKERS (TVD):

Anhydrite	890'
Yates	2,695'
Capitan	3,062'
Delaware	4,760'
Bone Springs	7,360'
Wolfcamp Carbonate	10,605'
Strawn Carbonate	11,335'
Atoka Clastic	11,790'
Atoka Sand	11,970'
Morrow Lime	12,050'
Middle Morrow	12,350'
Lower Morrow	12,600'
Total Depth	12,800'

2. ESTIMATED DEPTHS TO WATER, OIL, OR GAS FORMATIONS:

Fresh Water	Above 200' <i>down to 860'</i>
Oil and Gas	Delaware, Atoka Sand, Middle Morrow, Lower Morrow

3. Pressure control equipment: Exhibit #1 shows a 20", 2000# diverter system, which will be used on the 17-1/2" hole. The blow out preventer equipment (BOP) shown in Exhibit #2 will consist of a 3000 psi double ram type preventer for drilling the 12-1/4" hole. The blowout preventer stack for the production (8-1/2") hole as shown on Exhibit #3 will consist of at least a double-ram blowout preventer and annular preventer rated to 5000 psi working pressure. A diagram of the BOPs and choke manifold is attached. All BOPs and accessory equipment will be tested according to Onshore Order #2 before drilling out.

4. PROPOSED CASING PROGRAM:

<u>Hole Size</u>	<u>Interval</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade, Joint</u>
26"	0 - 890'	20"	94#	K-55, BTC
17-1/2"	0 - 3,080'	13-3/8"	61#	K-55, BTC
12-1/4"	0 - 4,270'	9-5/8"	40#	K-55 LT&C
8-1/2"	0 - 12,800'	5-1/2"	17-1/2#	N-80 LT&C

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability. Changes will be relayed to BLM prior to running.

5. PROPOSED CEMENTING PROGRAM

30" conductor	cemented with ready mix to surface
20" surface	700 sxs Premium Plus cement, 2% calcium chloride
13-3/8" intermediate	1,500 sxs Premium Plus cement, 2% calcium chloride
9-5/8" intermediate	900 sxs Interfill "C" cement, 1/4# per sx Flocele 250 sxs Premium Plus cement
5-1/2" production	400 sxs Light Cement 480 sxs Super "H" cement .5% Halad, .4% CFR-3, 3# per sx Gilsonite

6. PROPOSED MUD SYSTEM:

<u>DEPTH</u>	<u>DESCRIPTION</u>	<u>MUD WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>
0 – 890'	fresh water	8.6 – 8.8 ppg	28 – 30	NC
890' – 3,080'	brine water	10.0 – 10.2 ppg	28 – 34	NC
3,080' – 4,270'	fresh water	8.4 – 8.6 ppg	28 – 29	NC
4,270' – 12,800'	fresh/brine/mud	8.4 – 10.4 ppg	28 – 40	6-8 cc

7. TESTING, LOGGING AND CORING PROGRAM:

Samples	10' Samples from 5,200'
DST's	Possible Cisco, Strawn & Atoka
Logging	Density, Lateral, Resistivity
Coring	Possible sidewall core

8. ABNORMAL PRESSURES AND TEMPERATURES:

None anticipated. Maximum bottom hole pressure should not exceed 5,200 psi.

This area has a potential H₂S hazard. An H₂S drilling plan is attached.

ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

It is planned that operations will commence on July 27, 2003. Drilling should be completed within 45 days followed by completion operations.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

CABAL ENERGY CORPORATION **South Lusk "33" Federal #2**

I. HYDROGEN SULFIDE TRAINING

- A.** All regularly assigned personnel, contracted or employed by Cabal Energy Corporation, will receive training from a qualified instructor in the following areas prior to commencing drilling potential hydrogen sulfide bearing formations in this well:
 - 1.** The hazards and characteristics of hydrogen sulfide (H₂S).
 - 2.** The proper use and maintenance of personal protective equipment and life support systems.
 - 3.** The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
 - 4.** The proper techniques for first aid and rescue procedures.
- B.** In addition, supervisory personnel will be trained in the following areas:
 - 1.** The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
 - 2.** Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
 - 3.** The contents and requirements of the H₂S Drilling Operations Plan.
- C.** 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. 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.

- 1. Flare line with continuous pilot.**
- 2. Choke manifold with a minimum of one remote choke.**
- 3. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.**
- 4. Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head and flare.**

B. Protective Equipment for Essential Personnel:

Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

C. H₂S Detection and Monitoring Equipment:

- 1. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.**
- 2. One portable SO₂ monitor positioned near flare line.**

D. Visual Warning Systems

- 1. Wind direction indicators are shown on well site diagram.**
- 2. 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

- 1. The Mud Program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weights, safe drilling**

practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

2. A mud-gas separator will be utilized as needed.

F. Metallurgy:

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

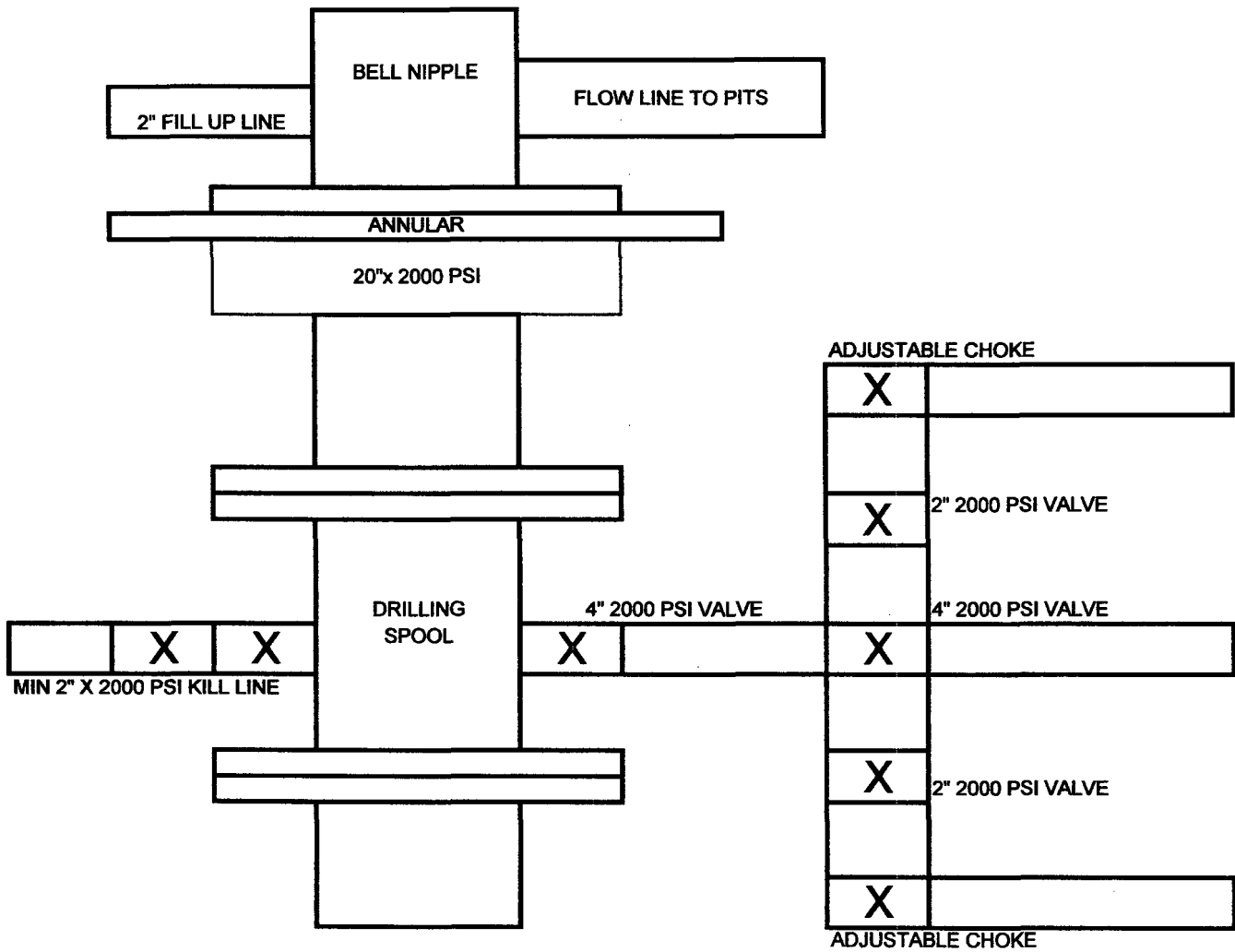
G. Communication:

Cellular telephone communications in company vehicles, rig floor and mud logging trailer.

H. Well Testing:

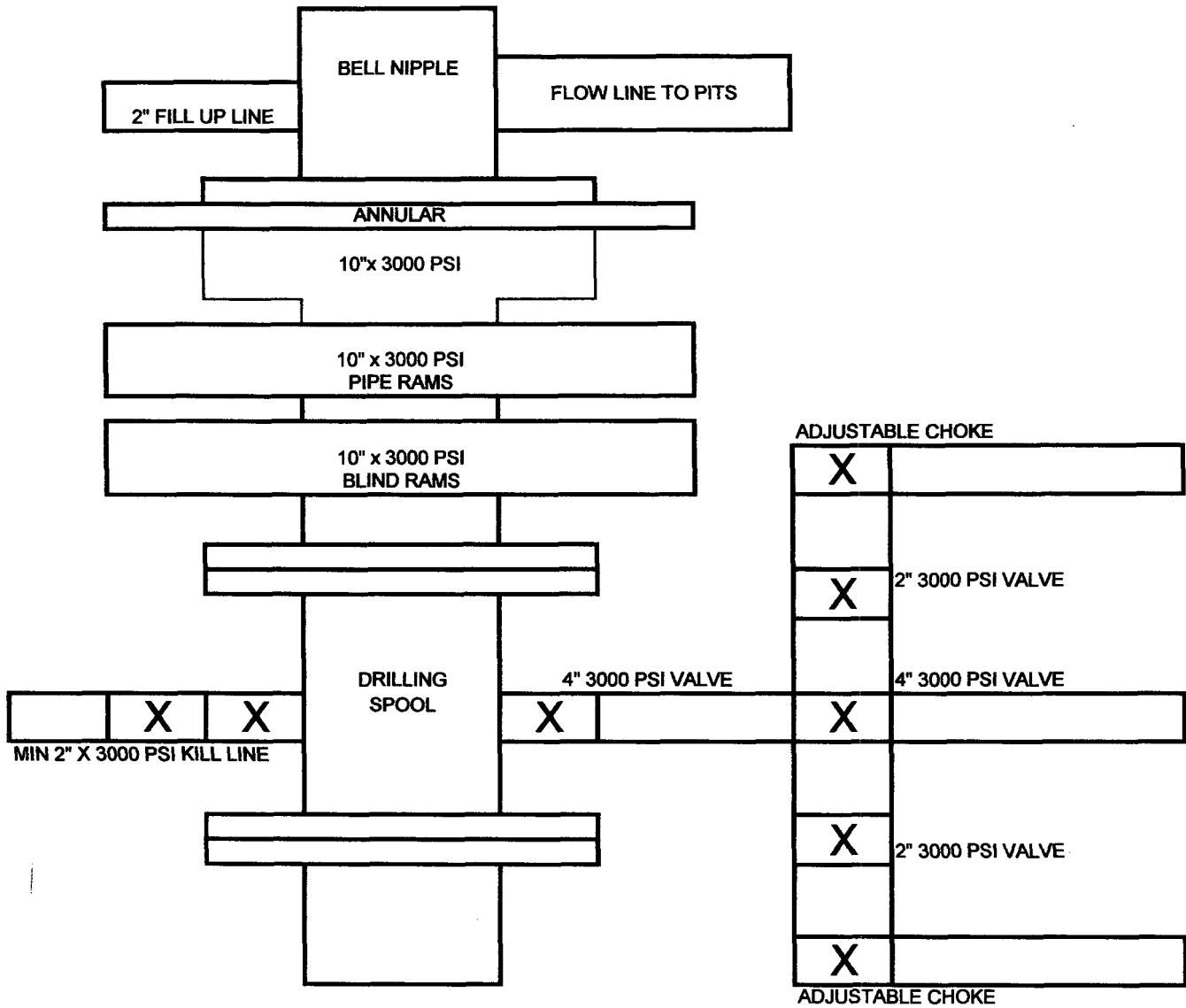
Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing and an H₂S environment will be conducted during the daylight hours.

BOP SCHEMATIC FOR
17-1/2" HOLE



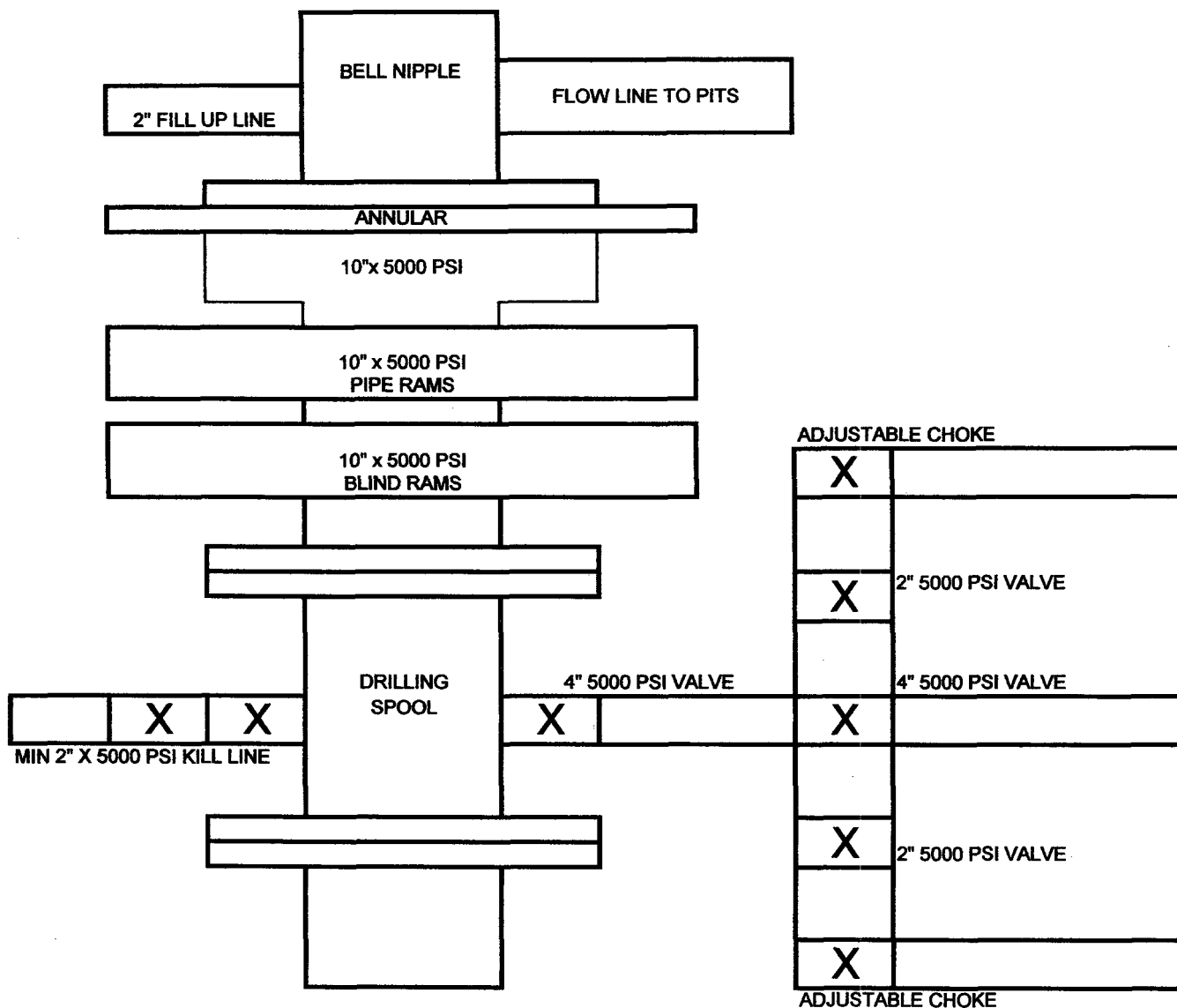
Cabal Energy Corporation
South Lusk 33 Federal #2
Lea County, New Mexico

BOP SCHEMATIC FOR
12-1/4" HOLE



Cabal Energy Corporation
South Lusk 33 Federal #2
Lea County, New Mexico

BOP SCHEMATIC FOR
8-1/2" HOLE



Cabal Energy Corporation
South Lusk 33 Federal #2
Lea County, New Mexico

MULTI POINT SURFACE USE AND OPERATIONS PLAN FOR

CABAL ENERGY CORPORATION

South Lusk "33" Federal #2

Surface Location: 2000' FNL & 70' FEL

Proposed Bottom Hole Location: 1330' FSL & 1330' FEL

Section 33, T-19-S, R-32-E

Lea County, New Mexico

Lease No.: NM 01135

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan to be followed in rehabilitating the surface and environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a location verification map showing the location of the proposed well as staked. The well site location is approximately 17 road miles South of Maljamar, New Mexico.
- B. Directions: Traveling West out of Hobbs on Hwy 62 / 180 drive approximately 32 miles then turn right (North) onto 176. Go 4.2 miles, and then turn right (North) onto CR-126. Go 4 miles; turn right (East) onto a caliche road. Go 1.3 miles to location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road will be approximately 1,948' long and 12' wide and run East to the SW corner of the location.
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None necessary.
- E. Cuts and Fills: None required.
- F. Gates and Cattle Guards: None necessary.
- G. Off lease right of way: None required.

3. LOCATION OF EXISTING WELLS:

Existing wells in the immediate area are shown on the Vicinity Map, Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. Cabal Energy Corporation has no production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, if required, will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIAL:

Caliche for surfacing the proposed access road and well site pad will be obtained from the location, if available, or from an approved Federal pit. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil Produced during tests will be stored in test tanks.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.

G. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

None required.

9. WELL SITE LAYOUT:

A. Exhibit "C" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged 500' x 500'.

B. Mat Size: 225' x 300', plus 150' x 150' reserve pit on the north.

C. Cut & Fill: The location will require a 6-inch cut on the north with fill to the south.

D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. The well site will be cleaned of trash leaving the site aesthetically pleasing to the extent possible.

B. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to be worked.

11. OTHER INFORMATION:

A. Surface Ownership - Bureau of Land Management

B. Mesa Field Services, P. O. BOX 3072, CARLSBAD, NEW MEXICO 88221, conducted an archaeological survey. No significant archaeological resources were found in the area of the planned access road or of the proposed well site.

C. Oil & Gas Lease:

NM 01135

(Based on LC-063536)

Township 19 South, Range 32 East

Section 33 – All

D. RECORD LESSEE:

Pure Energy Group	50%
Chisos	50%

E. BOND COVERAGE:

\$25,000 Statewide Oil & Gas Surety Bond
BLM Bond #: NM2860

12. OPERATOR'S REPRESENTATIVE:

The field representative for assuring compliance with the approved use and operations plan is as follows:

R. K. Ford & Associates
415 West Wall, Suite 1700
Midland, Texas 79701
432-682-0440 (Office)
432-682-0441 (Fax)
432-570-7216 (Home)
432-559-2222 (Cell)
Randell@rkford.com (E-mail)

13. CERTIFICATION:

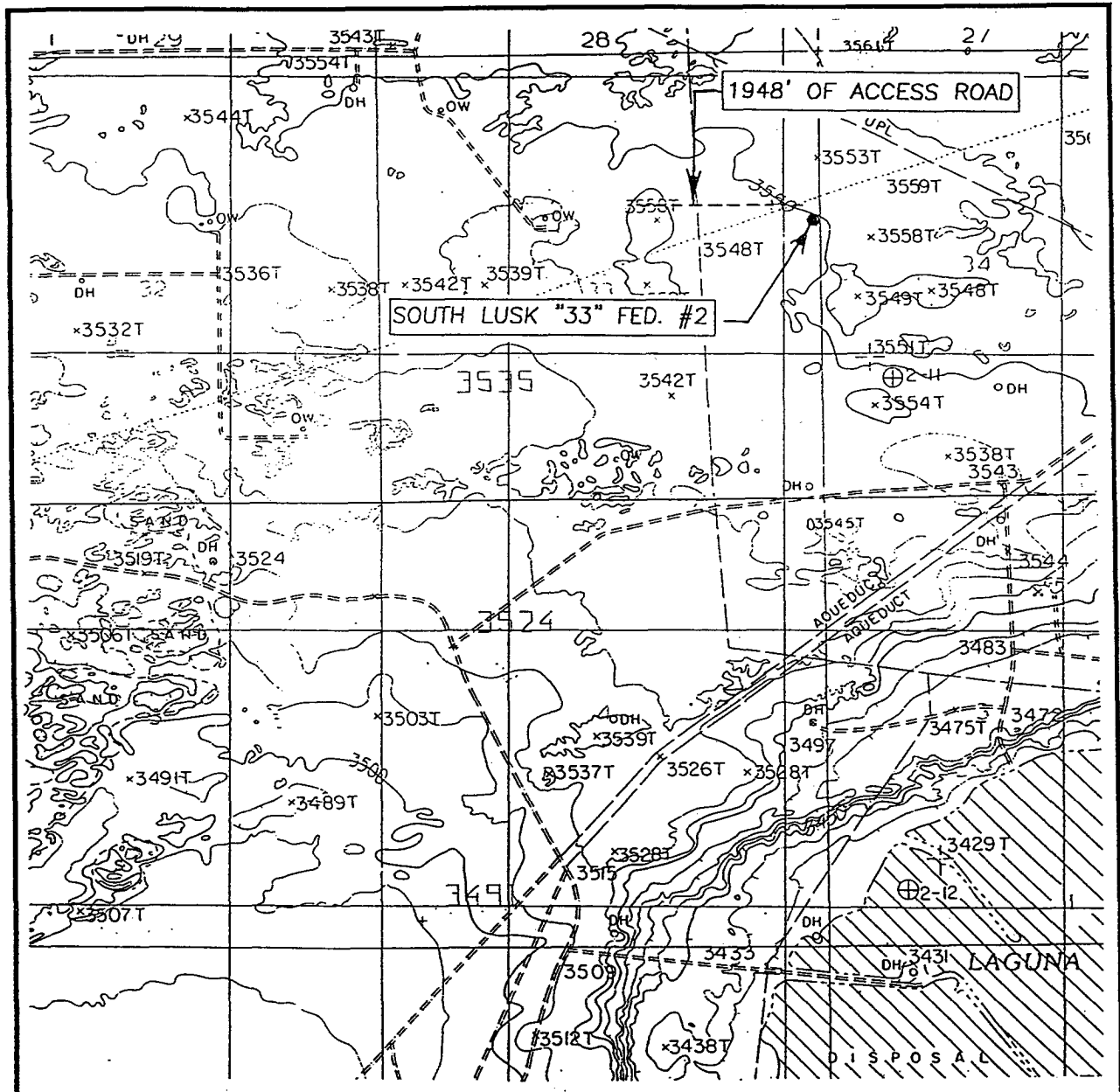
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Cabal Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

June 6, 2003



Randell K. Ford
President

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
WILLIAMS SINK, N.M.

SEC. 33 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2000' FNL & 70' FEL

ELEVATION 3553'

OPERATOR CABAL ENERGY CORPORATION

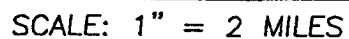
LEASE SOUTH LUSK "33" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
WILLIAMS SINK, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

Exhibit "A"
Cabal Energy Corporation
South Lusk "33" Federal #2
Surface Use and Operations Plan

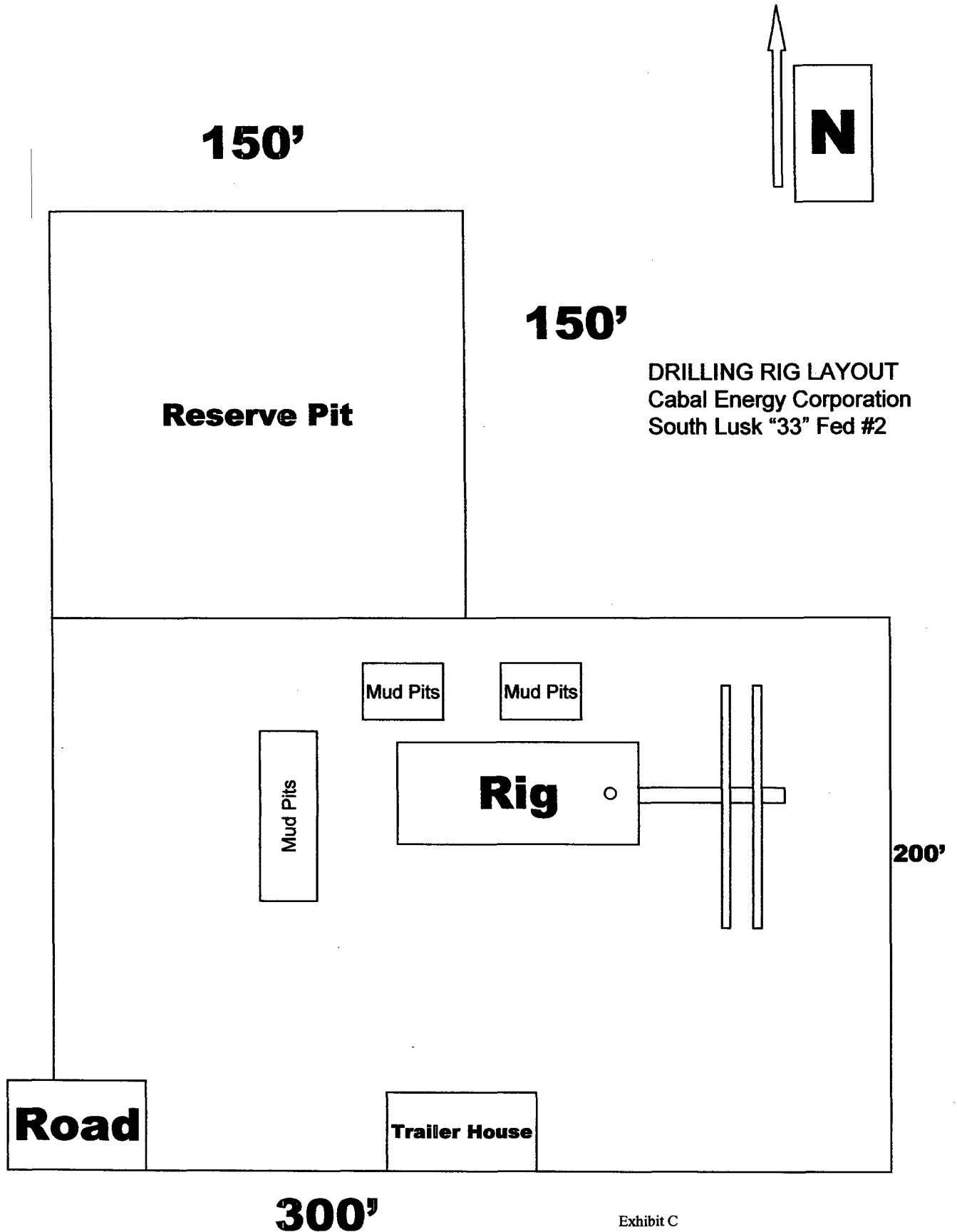
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LEASE SOUTH LUSK "33" FEDERAL

Exhibit B
Cabal Energy Corporation
South Lusk "33" Federal #2
Surface Use & Operations Plan

Scale 1" = 50'



United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Cabal Energy Corporation
Street or Box: 415 W. Wall, Suite 1700
City, State: Midland, Texas
Zip Code: 79701

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

Lease No: NM 01135

Legal Description of Land:

Township 19 South, Range 32 East, Lea County, New Mexico

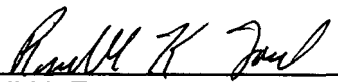
Section 33

South Lusk 33 Federal #2

Bond Coverage:

Statewide Oil and Gas Surety Bond, Cabal Energy Corporation (Principal)

BLM Bond File No.: NM2860



Randall K. Ford
President
June 6, 2003