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ATS-10-53

Form 3160-3
(August 2007)

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.
NM 23006

6. If Indian, Allotee or Tribe Name

7 If Unit or CA Agreement, Name and No.

1a. Type of work: ☑ DRILL ☐ REENTER

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

8. Lease Name and Well No.
Lusk '31' Federal No. 3 (37315)

2. Name of Operator Lynx Petroleum Consultants, Inc. (13645)

9. API Well No.
30-025-39593

3a. Address P.O. Box 1708
Hobbs, NM 88241

3b. Phone No. *(include area code)*
575-392-6950

10 Field and Pool, or Exploratory
Lusk North Bone Spring/Wolfcamp (Lusk, North)

4. Location of Well *(Report location clearly and in accordance with any State requirements *)*
At surface 1880' FSL & 2080' FEL Unit J
At proposed prod. zone 1880' FSL & 2080' FEL

11. Sec., T. R. M. or Blk. and Survey or Area
Sec.31, T-18S, R-32E

14. Distance in miles and direction from nearest town or post office*
11 miles SSW of Maljamar, NM

12 County or Parish
Lea

13. State
NM

| 15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 480' | 16 No. of acres in lease 321.27 | 17 Spacing Unit dedicated to this well 40 acres |
|---|---|---|
| 18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 325' | 19. Proposed Depth 11,200' | 20 BLM/BIA Bond No. on file NM-1694 (BO2099) |
| 21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3676' GL | 22. Approximate date work will start* 12/01/2009 | 23. Estimated duration 26 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 Larry R Scott | Name *(Printed/Typed)* Larry R. Scott | Date 10/01/2009 |
|---|---|---|
| Title | | |

| Approved by *(Signature)* /s/ Don Peterson | Name *(Printed/Typed)* | Date DEC 04 2009 |
|---|---|---|
| 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.

(Continued on page 2)

*(Instructions on page 2)

Capitan Controlled Water Basin

KZ

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

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

# OIL CONSERVATION DIVISION

*1220 South St. Francis Dr.*
*Santa Fe, New Mexico 87505*

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | Pool Code | Pool Name |
|---|---|---|
| 30-025-39593 | 41450 / 41609 | Lusk North Bone Spring/Wolfcamp (Lusk, North) |

| Property Code | Property Name | Well Number |
|---|---|---|
| 37315 | LUSK "31" FEDERAL | 3 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 013645 | LYNX PETROLEUM CONSULTANTS, INC. | 3676' |

### Surface Location

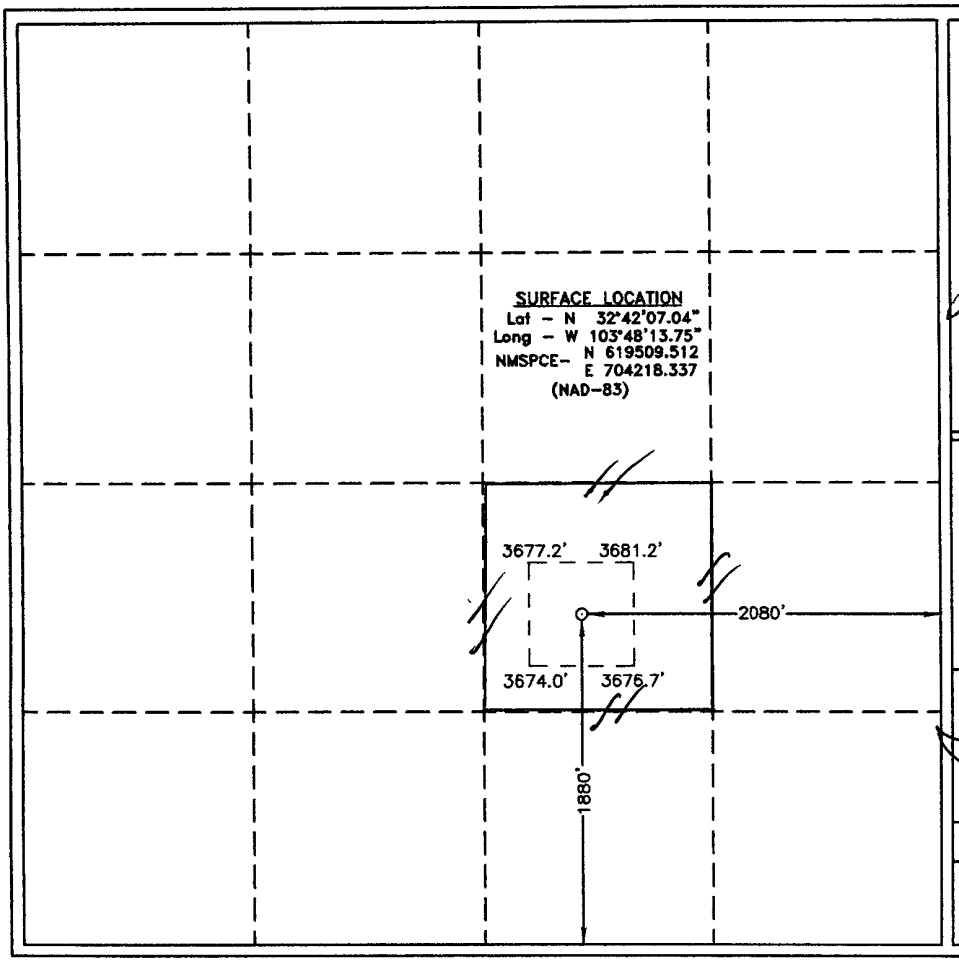
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| J | 31 | 18 S | 32 E | | 1880 | SOUTH | 2080 | EAST | LEA |

### 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| 40 / 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




### OPERATOR CERTIFICATION

*I hereby certify that the information contained 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 pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

Larry R. Scott 10-01-09
Signature Date

Larry R. Scott
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 supervison, and that the same is true and correct to the best of my belief.*

SEPTEMBER 10, 2009
Date Surveyed

Signature & Seal of Professional Surveyor

NEW MEXICO
GARY L. JONES
7977
REGISTERED PROFESSIONAL SURVEYOR

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

Form 3160-5
(April 2004)

OCD-HOBBS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
DEC 09 2009
HOBBSOCD

FORM APPROVED
Budget Bureau No 1004-0137
Expires: March 31, 2007

5. Lease Serial No
NM 23006

6. If Indian, Allottee or Tribe Name

## SUNDRY NOTICES AND REPORTS ON WELLS

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE – Other instructions on reverse side.***

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

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No
Lusk '31' Federal No. 3

2 Name of Operator
Lynx Petroleum Consultants, Inc.

9. API Well No

3a. Address
P.O. Box 1708, Hobbs, NM 88241

3b. Phone No (include area code)
575-392-6950

10. Field and Pool, or Exploratory Area
Lusk North Bone Spring/Wolfcamp

4 Location of Well (Footage, Sec., T ,R.,M., or Survey Description)
1880' FSL & 2080' FEL, Section 31, T-18S, R-32E

11. County or Parish, State
Lea, New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| [X] Notice of Intent | [ ] Acidize | [ ] Deepen | [ ] Production (Start/Resume) | [ ] Water Shut-Off |
| [ ] Subsequent Report | [ ] Alter Casing | [ ] Fracture Treat | [ ] Reclamation | [ ] Well Integrity |
| [ ] Final Abandonment Notice | [ ] Casing Repair | [ ] New Construction | [ ] Recomplete | [X] Other Refurbish Roadbeds |
| | [ ] Change Plans | [ ] Plug and Abandon | [ ] Temporarily Abandon | |
| | [ ] Convert to Injection | [ ] Plug Back | [ ] Water Disposal | |

13 Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports shall be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be Filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection )

Propose to refurbish roadbeds into the plugged and abandoned Federal CST Nos. 1 and 2 to the south side of the well pad. Total length will be 1295'. See attached map.

14 I hereby certify that the foregoing is true and correct
Name (*Printed/Typed*)
**Larry R. Scott**

Title
**PRESIDENT**

Signature Larry R. Scott

Date 10-01-09

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by /s/ Don Peterson

Title

Date
DEC 04 2009

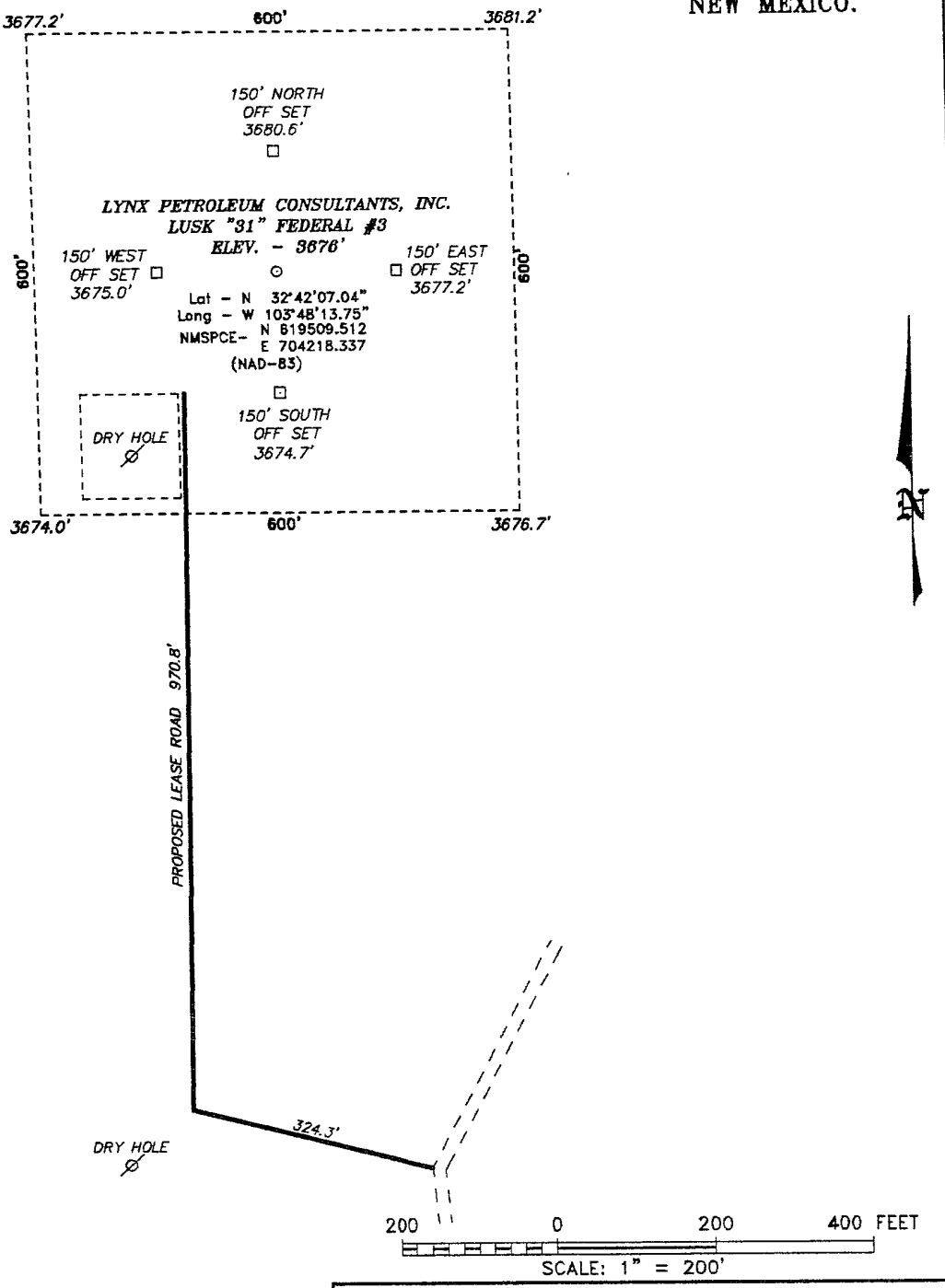
Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Office CARLSBAD FIELD OFFICE

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 and false, Fictitious or fraudulent statements or representations as to any matter within its jurisdiction

# SECTION 31, TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO.




Directions to Location:

FROM THE JUNCTION OF LUSK PLANT ROAD AND MALJAMAR ROAD, GO NORTH 3.4 MILES ON MALJAMAR TO LEASE ROAD, ON LEASE ROAD GO WEST 0.1 MILES THENCE WINDING SOUTHWEST 0.2 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTHWEST 0.1 MILES TO PROPOSED LEASE ROAD.

**LYNX PETROLEUM CONSULTANTS, INC.**

REF: LUSK "31" FEDERAL #3 / WELL PAD TOPO

THE LUSK "31" FEDERAL #3 LOCATED 1880'

FROM THE SOUTH LINE AND 2080' FROM THE EAST LINE OF

SECTION 31, TOWNSHIP 18 SOUTH, RANGE 32 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

| | | | |
|---|---|---|---|
| W.O. Number: 21748 | Drawn By: J. SMALL | | |
| Date: 09-18-2009 | Disk: JMS 21748 | Survey Date: 09-17-2009 | Sheet 1 of 1 Sheets |

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Application for Permit to Drill
Lusk '31' Federal No. 3
1880' FSL & 2080'FEL
Section 31, T-18S, R-32E
Lea County, New Mexico

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 23006

Location Legal Description: NW/4 SE/4 Section 31, T-18S, R-32E
Lea County, New Mexico

Proration Unit: NW/4 SE/4 Section 31, T-18S, R-32E
Lea County, New Mexico

Formation : Surface to base of Wolfcamp

Bond Coverage : $25,000 Statewide

BLM Bond File No. : NM-1694 (BO2099)

Operator : LYNX PETROLEUM CONSULTANTS, INC.

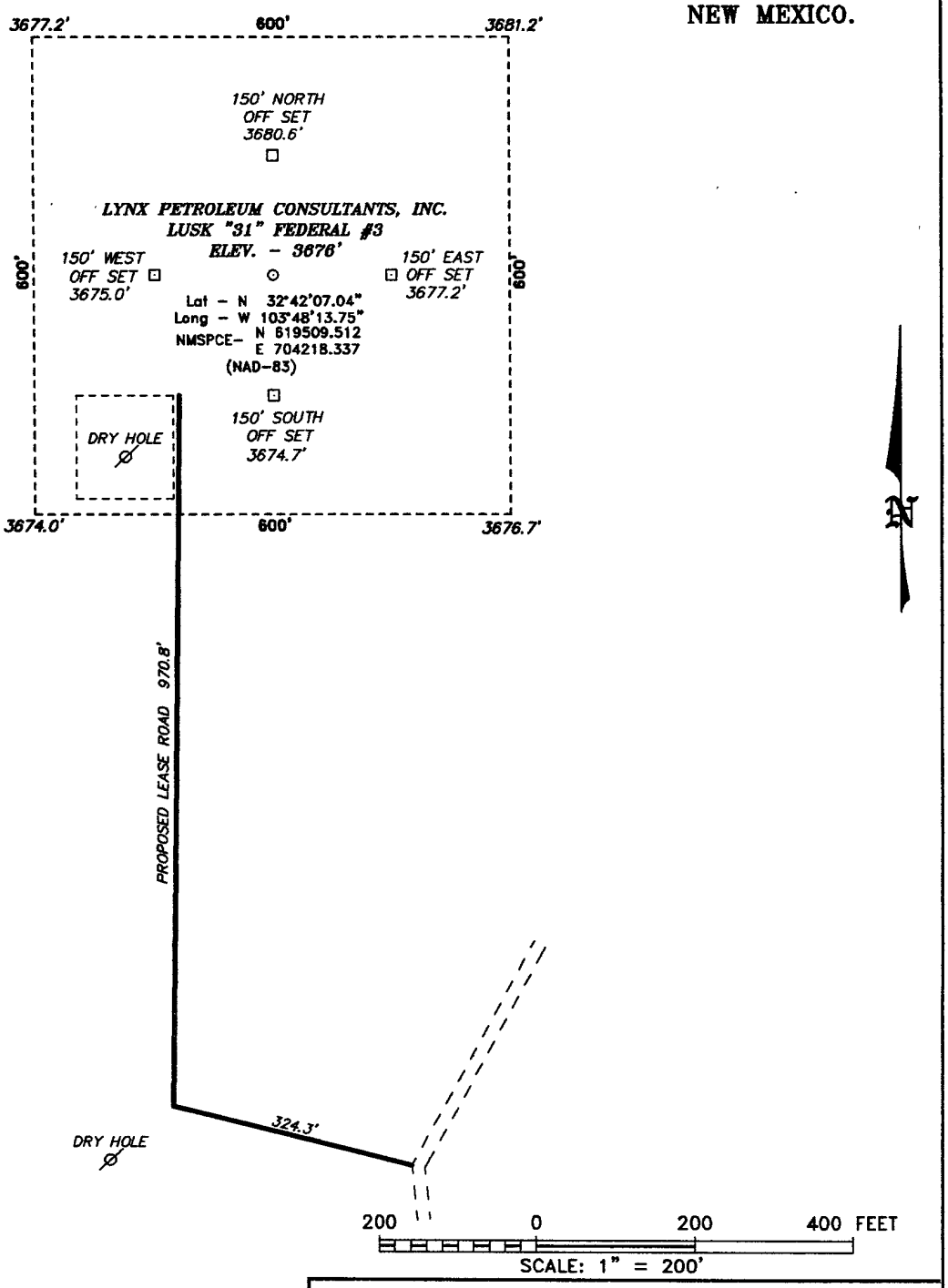
Authorized Signature : Larry L Scott

Title : President

Date : 10/1/2009

# SECTION 31, TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,

**LEA COUNTY,** **NEW MEXICO.**

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**LYNX PETROLEUM CONSULTANTS, INC.**

REF: LUSK "31" FEDERAL #3 / WELL PAD TOPO

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FROM THE SOUTH LINE AND 2080' FROM THE EAST LINE OF

SECTION 31, TOWNSHIP 18 SOUTH, RANGE 32 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

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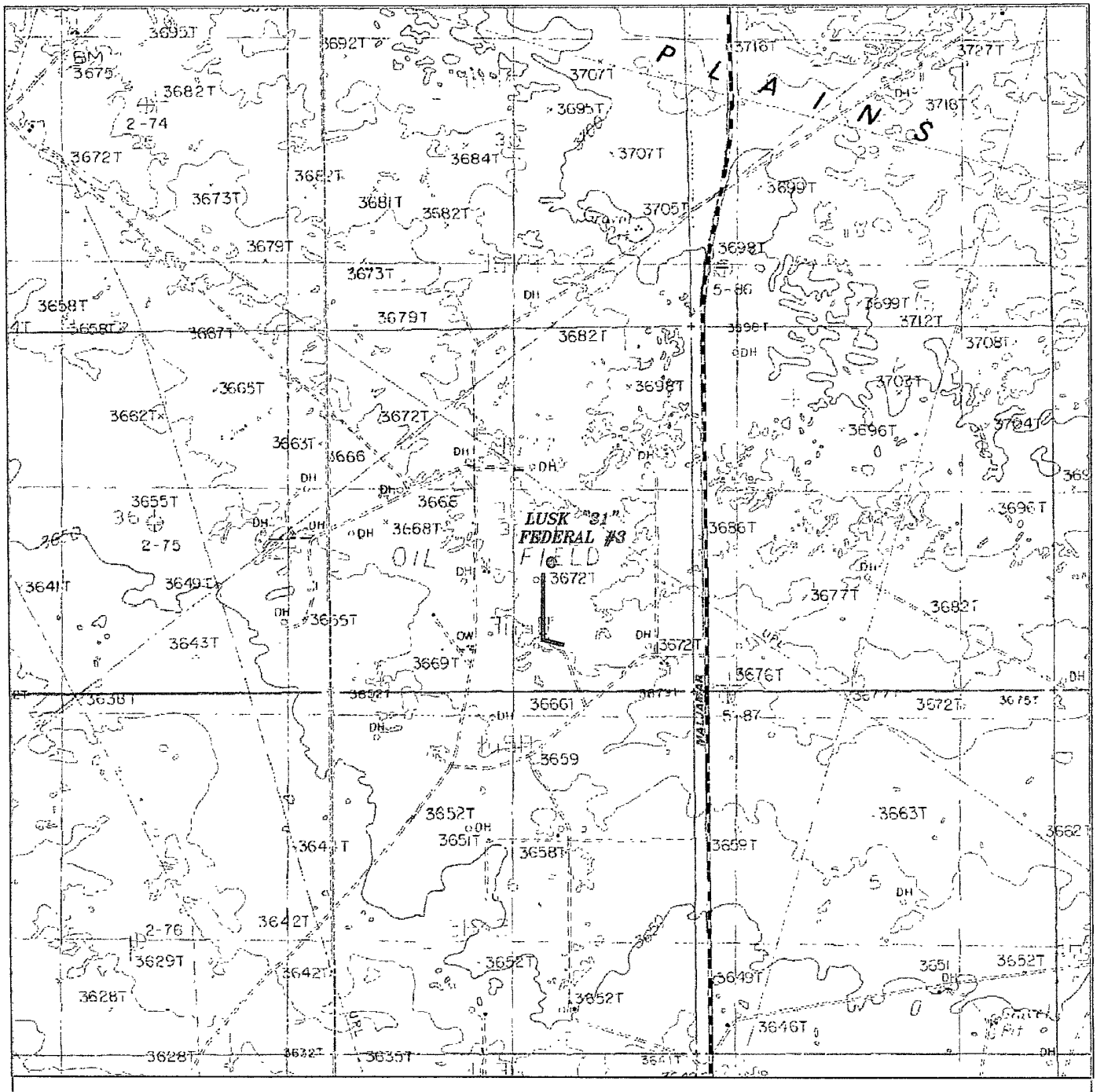



LUSK "31" FEDERAL #3
Located 1880' FSL and 2080' FEL
Section 31, Township 18 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

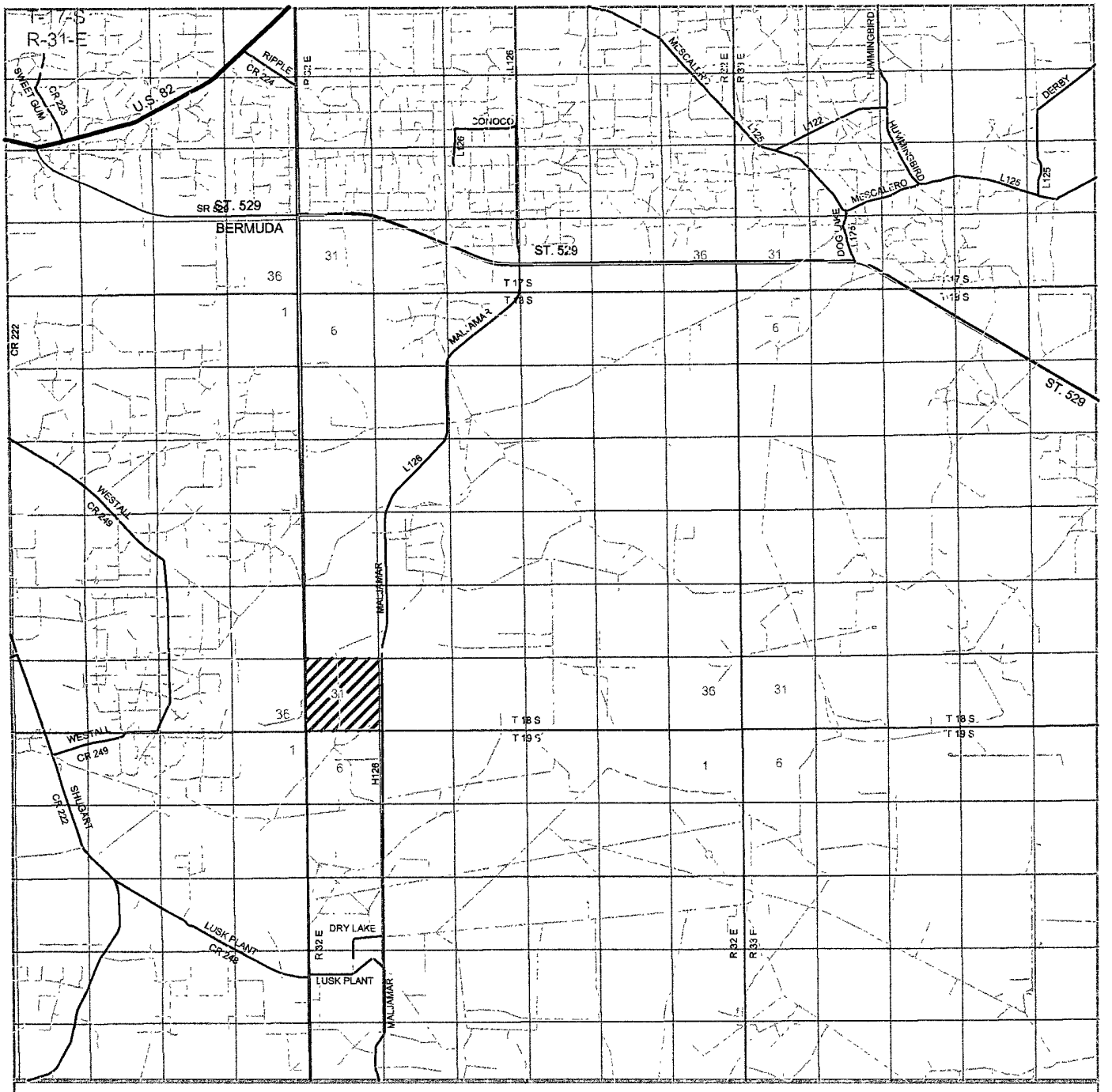
basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 21748
Survey Date: 09-17-2009
Scale: 1" = 2000'
Date: 09-18-2009

N

LYNX PETROLEUM CONSULTANTS, INC.




# LUSK "31" FEDERAL #3
Located 1880' FSL and 2080' FEL
Section 31, Township 18 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

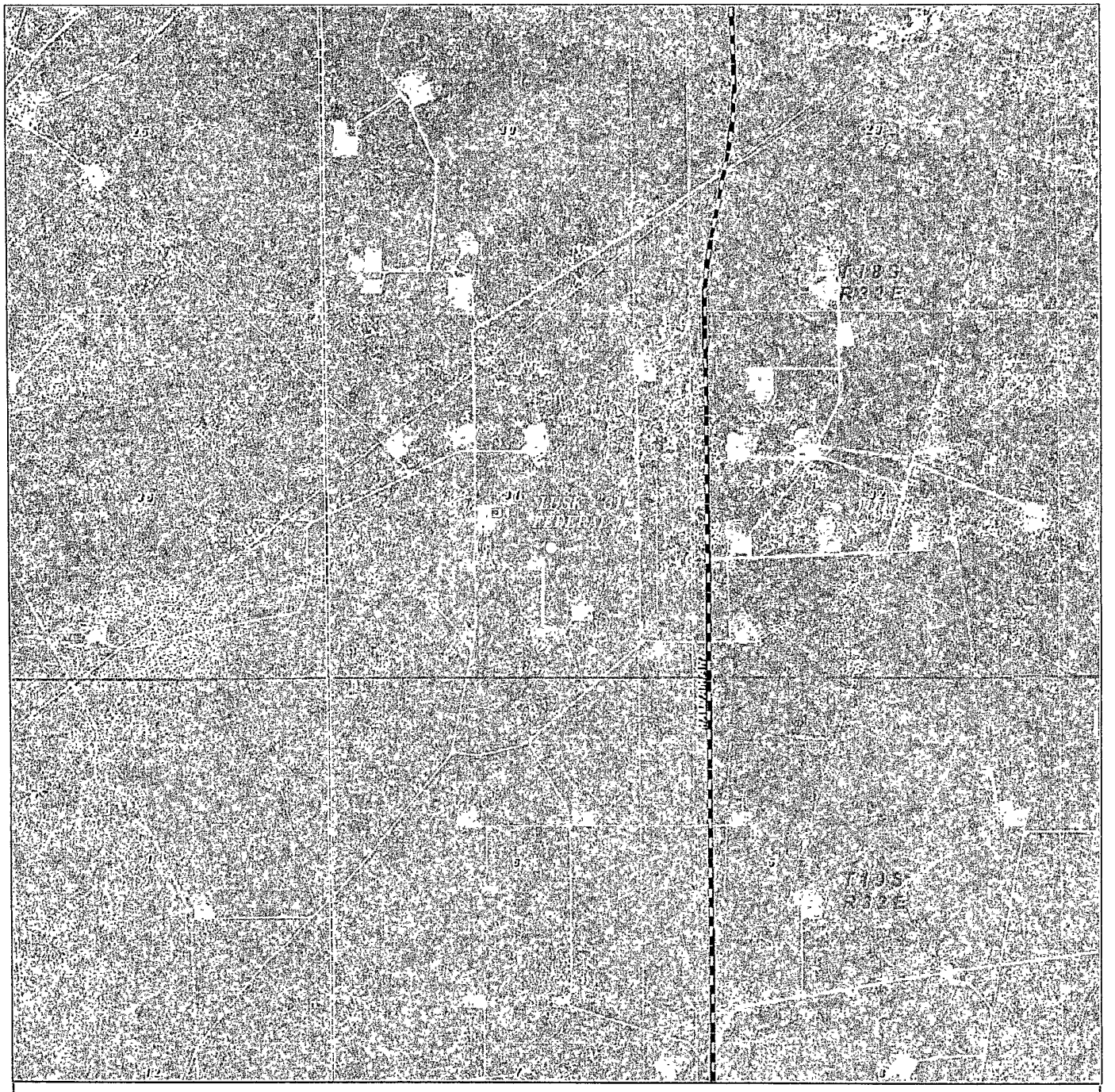

Basin Surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com


| | |
|---|---|
| W.O. Number: | JMS 21748 |
| Survey Date: | 09-17-2009 |
| Scale: | 1" = 2 Miles |
| Date: | 09-18-2009 |

N

LYNX PETROLEUM CONSULTANTS, INC.




LUSK "31" FEDERAL #3
Located 1880' FSL and 2080' FEL
Section 31, Township 18 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

Basin Surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 21748

Scale: 1" = 2000'

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

LYNX PETROLEUM CONSULTANTS, INC.

# DRILLING PROGRAM

Lynx Petroleum Consultants, Inc.
Lusk '31' Federal No. 3
1880' FSL & 2080' FWL
Section 31, T-18S, R-32E
Lea County, NM

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. SURFACE FORMATION : Sandy Soil of Quaternary Age

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS :

Top of Salt 1190'
Base " " 2470'

| | | |
|---|---|---|
| Rustler | - | 1050' |
| Yates | - | 2780' |
| Queen | - | 3650' |
| Delaware | - | 5025' |
| Bone Spring | - | 6800' |
| Bone Spring 1st Sd | - | 8100' |
| Bone Spring 3rd Sd | - | 9750' |
| Wolfcamp | - | 10,110' |

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

| | | |
|---|---|---|
| Fresh Water | - | None in measurable quantity |
| Oil, Gas, & Water | - | Yates, Grayburg, Delaware, Bone Spring, Wolfcamp |

* Productive horizons to be protected by 5 ½" casing and cement.

per operator

4. PROPOSED CASING PROGRAM :

Hole Size
17 1/2"
12 1/4" or 11"
7 7/8"

| | | | | | | |
|---|---|---|---|---|---|---|
| 13 3/8" | 0' | - | ~~500'~~ 1100' | 48.0# | H-40 | ST&C |
| 8 5/8" | 0' | - | 2750' | 32.0# | J-55 | ST&C |
| 5 1/2" | 0' | - | 11,200' | 17.0# | N-80 | LT&C |

See COA

Casing Safety Factors

| | B.S.F. | C.S.F | J.S.F. | Y.S.F |
|---|---|---|---|---|
| 13-3/8" | 1.4 | 3.3 | 14.9 | 22.7 |
| 8-5/8" | 2.2 | 2.0 | 4.7 | 6.4 |
| 5-1/2" | 1.5 | 1.2 | 2.0 | 2.0 |

DRILLING PROGRAM
Lusk '31' Federal No. 3

5. PROPOSED CEMENT PROGRAM : ← See COA

| | |
|---|---|
| 20" Conductor | - Cemented with ready mix to surface. |
| See COA — 13 3/8" Surface | - 300 sxs Class "C" + 4% Gel + 2% $CaCl_2$ (507 $ft^3$) followed by 250 sxs Class "C" + 2% $CaCl_2$ ( 330 $ft^3$). T.O.C. @ surface. 1.69 ft³/sx 1.32 ft³/sx |
| 8 5/8" Intermediate | - 800 sxs Class "C" Poz followed by 200 sxs Class "C" (1884 $ft^3$ total). T.O.C. @ surface. |
| 5 1/2" Production | - First state 700 sxs Class "C". Second stage 500 sx. Class "H" Poz followed by 100 sxs Class "HC". TOC @ ~~2600'~~ 2550' See COA |

1ST stage 1.6 cf/sx
2nd stage 2.12 cf/sx
per operator
DV Tool 6800'
RGH
11/12/09

See COA — 6. PRESSURE CONTROL EQUIPMENT : A blowout preventer stack for the intermediate hole will consist of at least an annular preventer rated to 2000 psi working pressure. The blowout preventer stack for the production hole will consist of at least a double-ram blowout preventer and an annular preventer rated to 5000 psi working pressure. A sketch of the B.O.P.'s and Choke Manifold are attached.

See COA

7. CIRCULATING MEDIUMS : Fresh water spud mud 0' – ~~500'~~. Brine water 500' – 2650'. Cut brine mud system 8.8 – 9.3 ppg with 29 viscosity will be used 2650' – 9800'.

8. AUXILIARY EQUIPMENT : Full opening Kelly cock valve to fit the drill string in use, will be kept on the rig floor at all times.

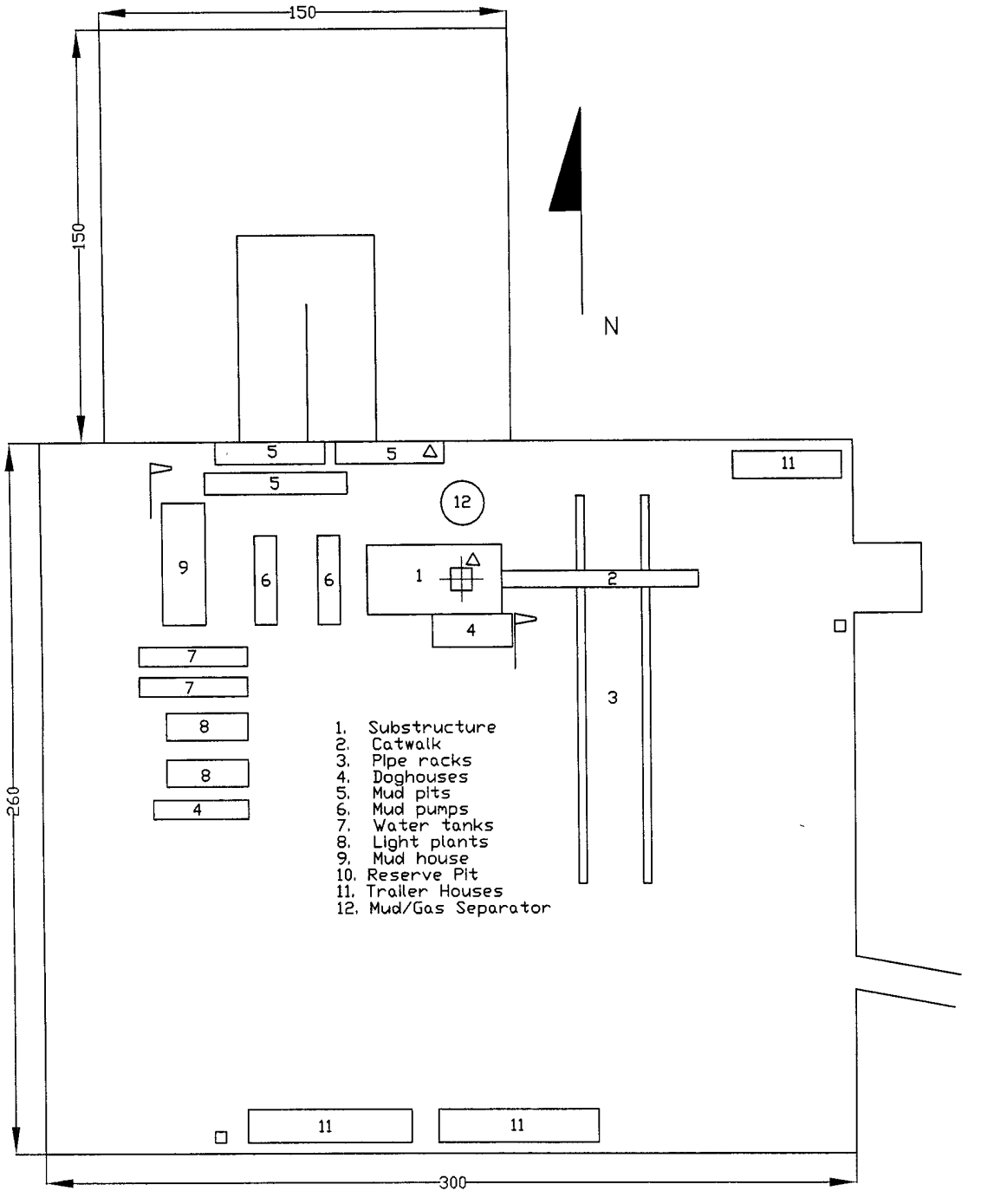
9. TESTING, LOGGING, AND CORING PROGRAM :

| | | |
|---|---|---|
| | Samples | - 2750' – TD |
| | D.S.T.'s | - No D.S.T.'s are planned |
| See COA — | Logging | - Gamma Ray – CNL – FDC – DLL |
| | Coring | - No coring is planned |

10. ABNORMAL PRESSURES AND TEMPERATURES : None anticipated.

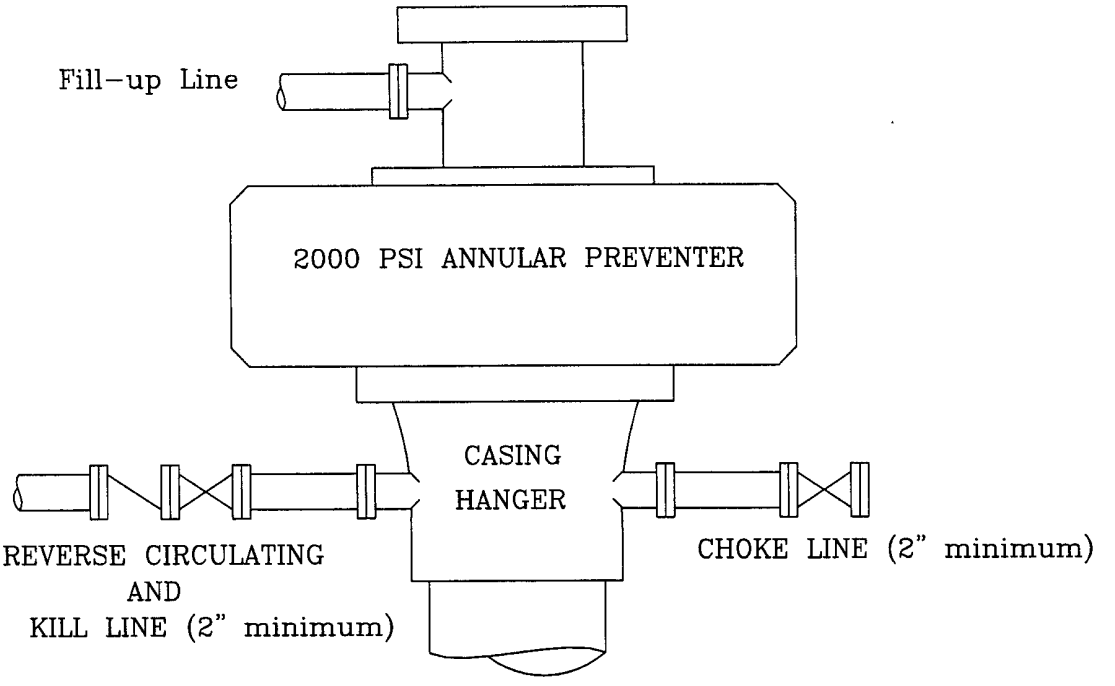
BHT - 143°F
BHP - 4351 psi
per operator

11. ANTICIPATED STARTING DATE : Drilling will commence about January 1, 2010. Drilling should be complete within 27 days. Completion operations (perforations and stimulation) will follow drilling operations.

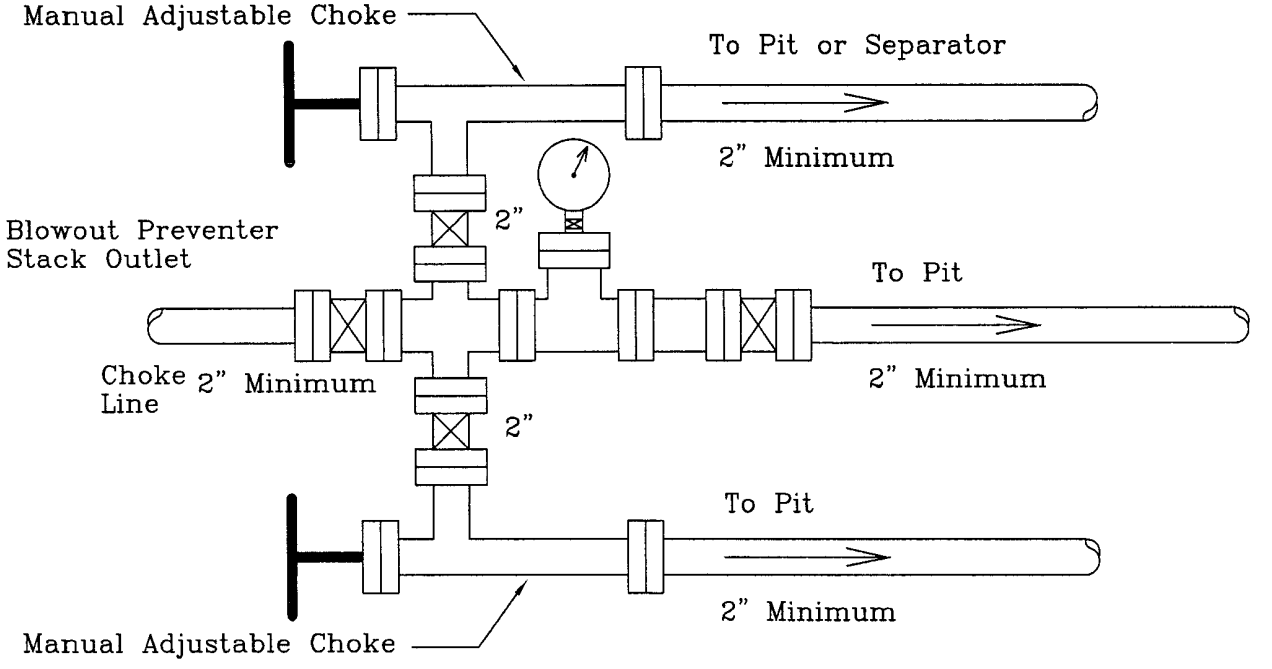



| | | |
|---|---|---|
| Scale: None | Lusk '31' Federal No. 3 | Loc: 1880'FSL & 2080'FEL |
| | | Sec.31, T-18S, R-32E |
| Date: 9/29/09 | Rig Layout | Lea County, NM |

## INTERMEDIATE HOLE SECTION




2000 PSI WORKING PRESSURE

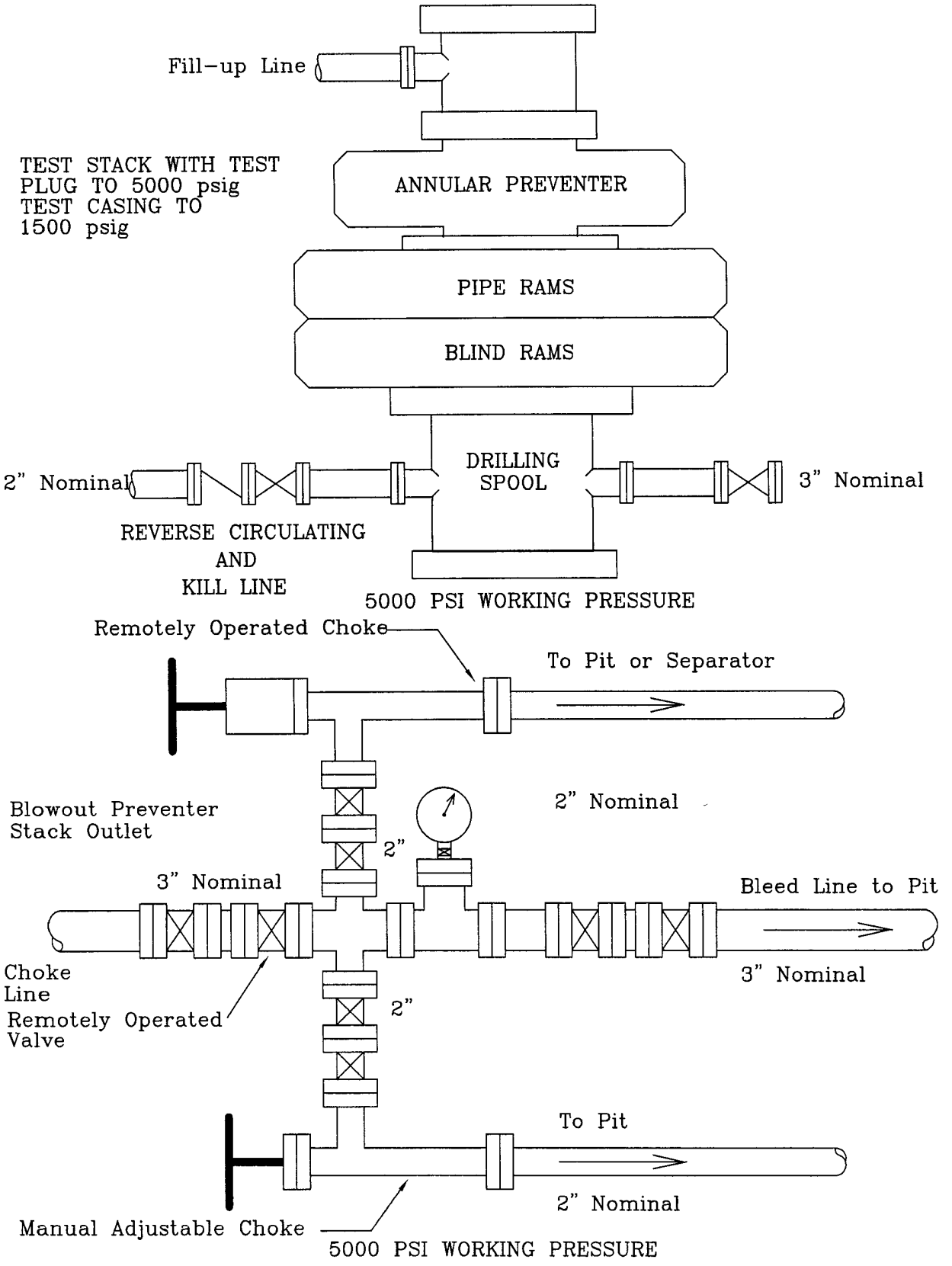



2000 PSI WORKING PRESSURE

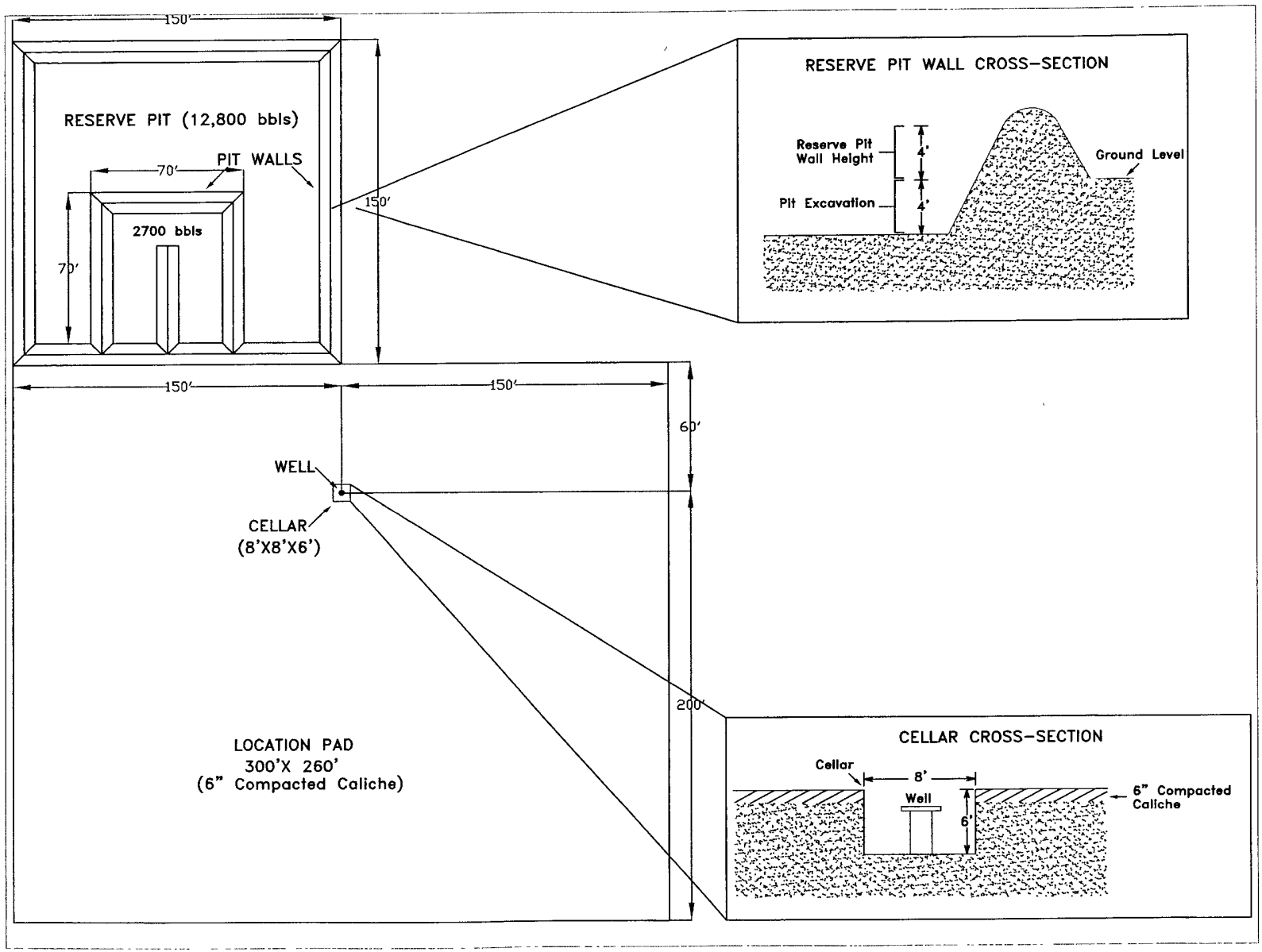
TEST CASING AND ANNULAR PREVENTOR TO 600 psig (See COA)

| | | | |
|---|---|---|---|
| Location: NW/4 SE/4<br>Sec. 31, T-18S, R-32E<br>Lea County, NM | Lusk '31' Federal No. 3<br>BLOWOUT PREVENTER AND CHOKE MANIFOLD | | 9/28/09 |
| | | Scale: None | |

# PRODUCTION HOLE SECTION




| | | | |
|---|---|---|---|
| Location: NW/4 SE/4<br>Sec. 31, T-18S, R-32E<br>Lea County, NM | Lusk '31' Federal No. 3<br>BLOWOUT PREVENTER AND CHOKE MANIFOLD | | 9/28/09 |
| | | Scale: None | |


150'
RESERVE PIT (12,800 bbls)
PIT WALLS
70'
2700 bbls
70'
150'
RESERVE PIT WALL CROSS-SECTION
Reserve Pit Wall Height
4'
Pit Excavation
4'
Ground Level
150'
150'
60'
WELL
CELLAR
(8'X8'X6')
200'
LOCATION PAD
300'X 260'
(6" Compacted Caliche)
CELLAR CROSS-SECTION
Cellar
8'
Well
6'
6" Compacted Caliche

LYNX PETROLEUM CONSULTANTS, INC.
HYDROGEN SULFIDE DRILLING OPERATIONS
LUSK '31' FEDERAL NO. 3

## 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:

1. The hazards and characteristics of hydrogen sulfide ($H_2S$).

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of $H_2S$ detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

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

1. 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.

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 $H_2S$ 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 $H_2S$ Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site.

## 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 $H_2S$.

1. Well Control Equipment :

   A. Choke manifold with a minimum of one remote choke.

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

   C. Auxiliary equipment to include : annular preventer

2. Protective equipment for essential personnel :

   A. 30-minute air units located in the dog house and at briefing areas, as indicated on well site diagram.

3. $H_2S$ detection and monitoring equipment :

   A. 2 – portable $H_2S$ monitors 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.

   B. 1 – portable $SO_2$ monitor positioned near flare line.

4. Visual warning systems :

   A. Wind direction indicators as shown on well site diagram.

   B. 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 well be used when appropriate. See example on page 3.

5. Mud program :

   A. The mud program has been designed to minimize the volume of $H_2S$ circulated to the surface. Proper mud weight, safe drilling practices, and the use of $H_2S$ scavengers will minimize hazards when penetrating $H_2S$ bearing zones.

   B. A mud-gas separator will be utilized if needed.

6. Metallurgy :

A. 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.

B. All elastomers used for packing and seals shall be $H_2S$ trim.

7. Communication :

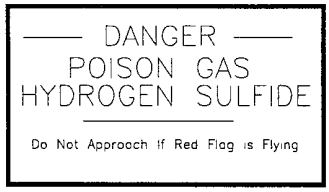
A. Communications in company vehicles are provided by cellular telephones.
Cell1: 575-390-9063 Cell2: 575-390-9065

B. Land line (telephone) communications at Hobbs office.
Phone: 575-392-6950

C: Emergency Numbers
911
Carlsbad Sheriff's Dept.: 575-887-1888
Carlsbad Hospital: 575-887-4100
Carlsbad Fire Dept.: 575-885-3125
Maljamar Fire Dept.: 575-676-4100
Hobbs Hospital: 575-492-5000
New Mexico State Police: 575-392-5588

8. Well testing :

A. Drill stem testing will be preformed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. All drill stem testing operations conducted in an $H_2S$ environment will use the closed chamber method of testing.



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 presently exist ; that the statements made in this plan are, to the best of my knowledge, true and correct ; that the work associated with the operations proposed herein will be performed by LYNX PETROLEUM CONSULTANTS, INC. and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

10-1-2007
DATE

Larry R. Scott
LARRY R. SCOTT – PRESIDENT

# PECOS DISTRICT
# CONDITIONS OF APPROVAL

| | |
|---|---|
| OPERATOR'S NAME: | Lynx Petroleum Consultants |
| LEASE NO.: | NM23006 |
| WELL NAME & NO.: | 3 Lusk 31 Federal |
| SURFACE HOLE FOOTAGE: | 1880' FS & 2080' FEL |
| BOTTOM HOLE FOOTAGE | Same |
| LOCATION: | Section 31, T. 18 S., R 32 E., NMPM |
| COUNTY: | Lea County, New Mexico |

## TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

## I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

## VI. CONSTRUCTION

### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

### C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 150' X 150' on the North side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

## D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

## E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## F. ON LEASE ACCESS ROADS

**Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

**Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

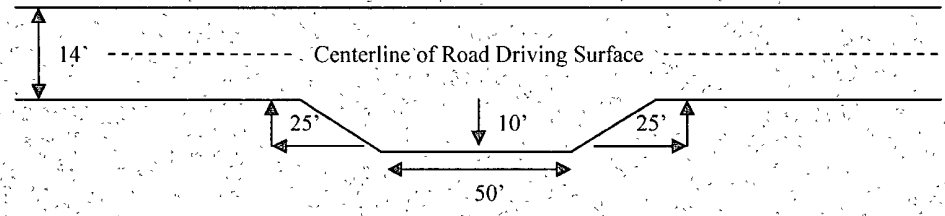
The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

**Crowning**
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

**Ditching**
Ditching shall be required on both sides of the road.

**Turnouts**
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

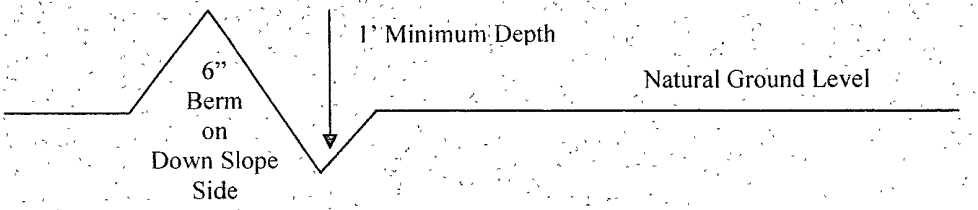
**Standard Turnout – Plan View**




**Drainage**
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

**Cross Section of a Typical Lead-off Ditch**




All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

**Formula for Spacing Interval of Lead-off Ditches**

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

**Culvert Installations**
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

**Cattleguards**
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

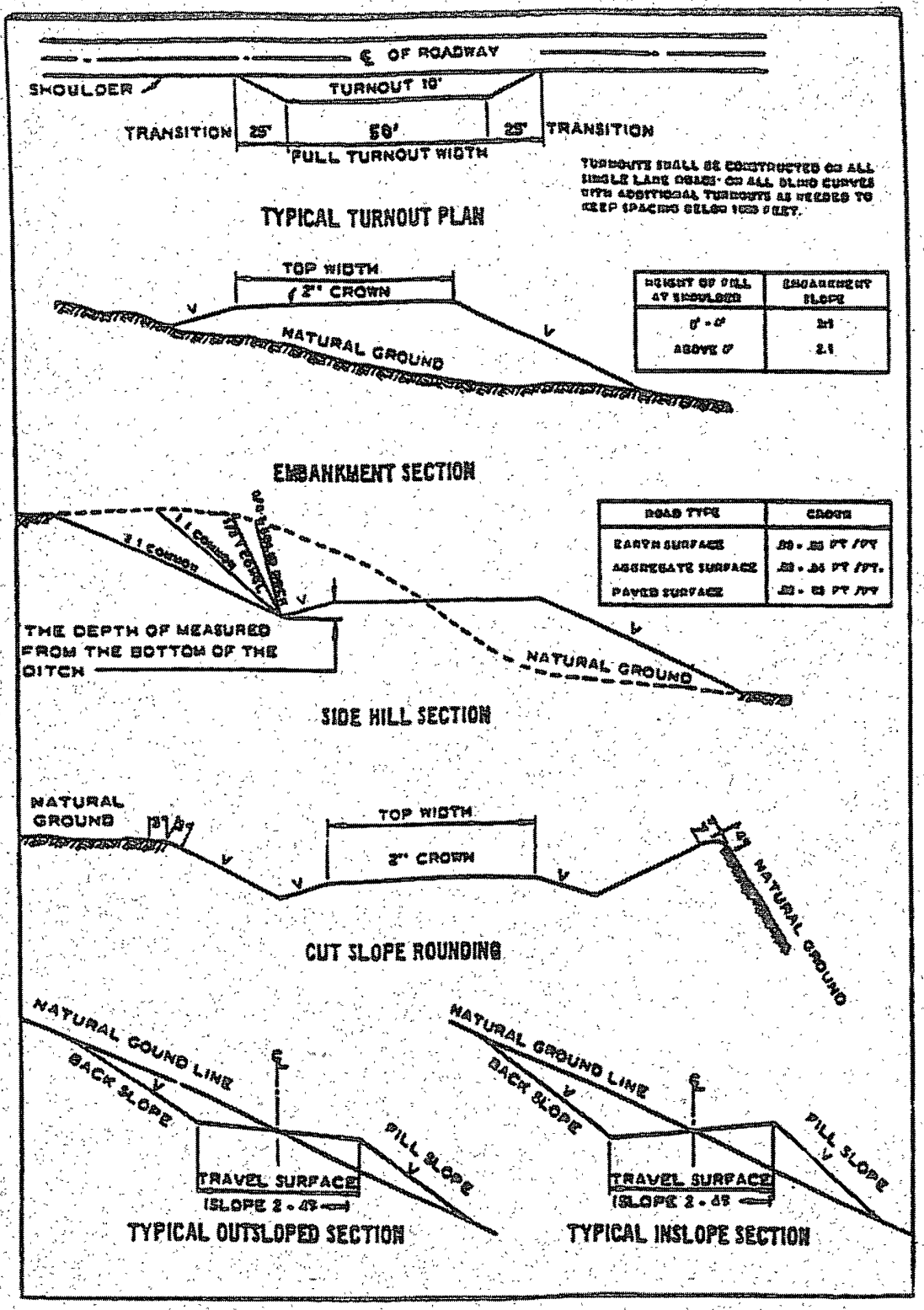
A gate shall be constructed and fastened securely to H-braces.

**Fence Requirement**
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Public Access**
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

## Figure 1 – Cross Sections and Plans For Typical Road Sections



## VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Yates** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. 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.

3. Floor controls are required for 3M or Greater systems. These 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 is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

### B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible water and brine flows in the Salado and Artesia Groups.**
**Possible high pressures in the Wolfcamp and Pennsylvanian Group.**

1. The **13-3/8** inch surface casing shall be set **at approximately 1100 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Fresh water mud to be used to setting depth. Due to the additional casing length, the proposed cement calculates an excess of 3%, therefore more cement may be required to circulate to surface.**

   a. 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

   **b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

   c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

   d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
   **Casing is to set in the Tansill formation.**

**Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   a. First stage to DV tool, cement shall:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

   b. Second stage above DV tool, cement shall:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. 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.

## C. PRESSURE CONTROL

1. 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 API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **8-5/8 inch** intermediate casing shoe shall be **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

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

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. 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.**

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. 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.

e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

f. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

### D. 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.

**Proposed mud weight may not be adequate for drilling through Wolfcamp.**

### E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**RGH 111009**

## VIII. PRODUCTION (POST DRILLING)

### A. WELL STRUCTURES & FACILITIES

**Placement of Production Facilities**
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

**Containment Structures**
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

**Painting Requirement**
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

# IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

## A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

## B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either

certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

| Species | lb/acre |
|---|---|
| Plains Bristlegrass | 5lbs/A |
| Sand Bluestem | 5lbs/A |
| Little Bluestem | 3lbs/A |
| Big Bluestem | 6lbs/A |
| Plains Coreopsis | 2lbs/A |
| Sand Dropseed | 1lbs/A |
| **Four-winged Saltbush | 5lbs/A |

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.