

# S

## OCD-HOBBS

# RECEIVED

Form 3160-3  
(April 2004)

JUN 18 2008

JUN 23 2008

OCD-ARTESIA

# HOBBS OCD

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No LC062903
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name n/a
2. Name of Operator Lynx Petroleum Consultants, Inc. 13645		7. If Unit or CA Agreement, Name and No n/a
3a. Address P.O. Box 1708 Hobbs, NM 88241	3b. Phone No (include area code) 575-392-6950	8. Lease Name and No Lusk 31 No. 2 37315
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 2310' FSL & 2310' FWL ✓ At proposed prod zone same		9. API Well No 30-025-39079
14. Distance in miles and direction from nearest town or post office* 11 miles south southwest		10. Field and Pool, or Exploratory Lusk, Bone Spring, North ✓
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg unit line, if any). 330'		11. Sec, T/R M or Blk. and Survey or Area Section 31, T-18S, R-32E ✓
16. No of acres in lease 160		12. County or Parish Lea
17. Spacing Unit dedicated to this well 40 ✓		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. none		19. Proposed Depth 9900' 9900'
20. BLM/BIA Bond No on file B02099 DOC #		21. Estimated duration 25 days
22. Approximate date work will start* July 15, 2008		23. Estimated duration 25 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

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

25. Signature: <i>Larry R. Scott</i>	Name (Printed/Typed) Larry R. Scott	Date 06/04/08
--------------------------------------	--	------------------

Title  
PresidentApproved by (Signature)  
/s/ Don PetersonName (Printed/Typed)  
/s/ Don PetersonDate  
JUN 13 2008Title  
FIELD MANAGEROffice  
CARLSBAD FIELD OFFICEApplication approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon  
Conditions of approval, if any, are attached**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

\*(Instructions on page 2)

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR  
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Application for Permit to Drill  
Lusk '31' Federal No. 2  
1980' FSL & 1980'FWL  
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. : LC 062903

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

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

Formation : Surface to base of Bone Springs

Bond Coverage : \$25,000 Statewide

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

Operator : LYNX PETROLEUM CONSULTANTS, INC.

Authorized Signature : 

Title : President

Date : 3/1/08

## State of New Mexico

## DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

## 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 <b>30-025-39079</b>	Pool Code <b>41450</b>	Pool Name <b>LUSK; BONESPRING NORTH</b>
Property Code <b>37315</b>	Property Name <b>LUSK 31 FEDERAL</b>	Well Number <b>2</b>
OGRID No. <b>13845</b>	Operator Name <b>LYNX PETROLEUM CONSULTANTS, INC.</b>	Elevation <b>3674'</b>

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	31	18-S	32-E		2310	SOUTH	2310	WEST	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 <b>40</b>	Joint or Infill	Consolidation Code	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

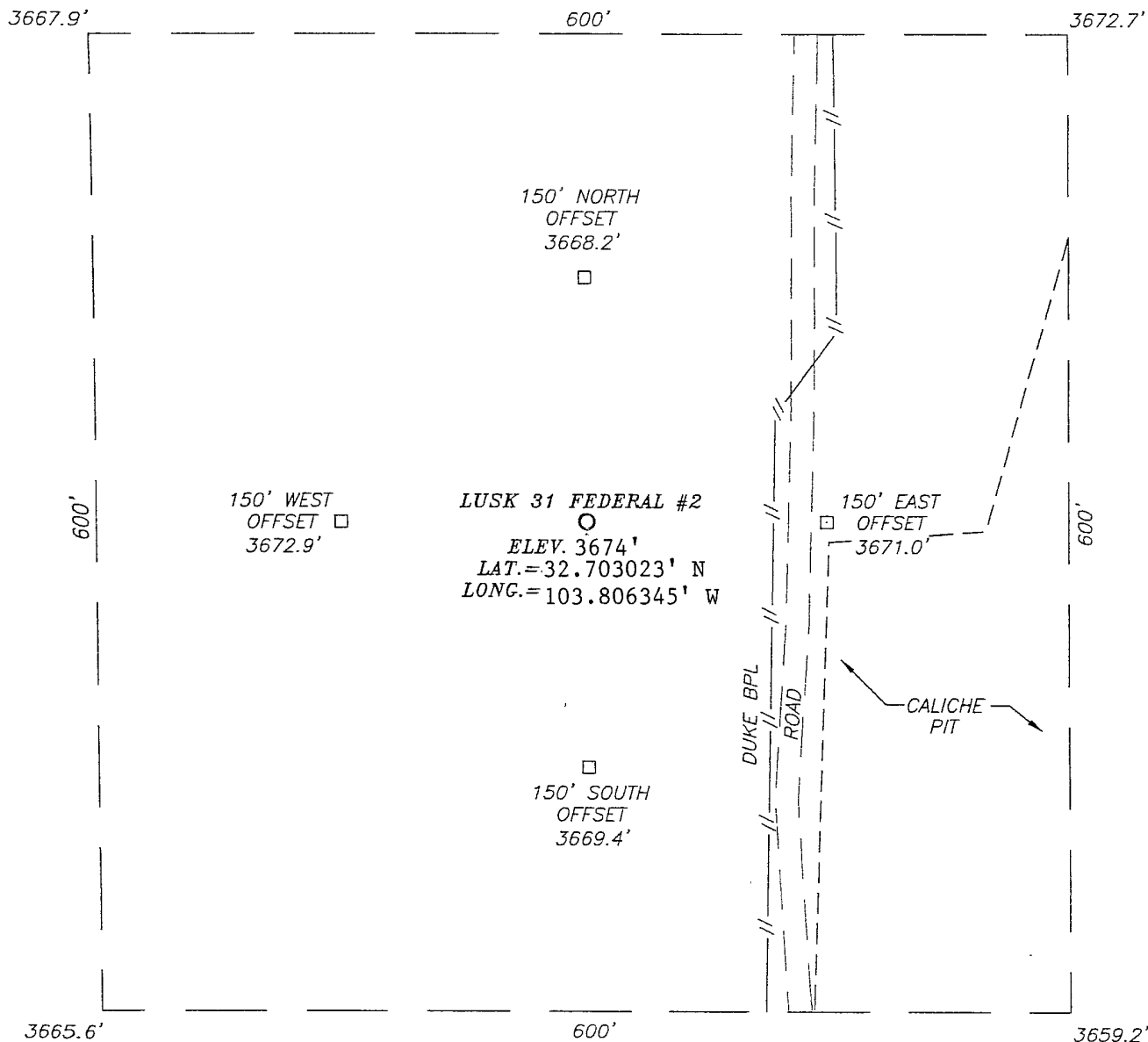
LOT 1						<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or 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.</p> <p><i>Larry R. Scott</i> 5-1-08 Signature Date Larry R. Scott Printed Name</p>
41.18 AC. LOT 2						
41.27 AC. LOT 3	3676.5'	3677.2'				
	2310'	600'	600'			
41.35 AC. LOT 4	3669.5'	3672.4'				
41.44 AC.						<p><b>SURVEYOR CERTIFICATION</b></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><i>Ronald J. Eidson</i> Date Surveyed: APRIL 24, 2008 Signature &amp; Seal of Professional Surveyor Certificate No. GARY G. EIDSON 12641 RONALD J. EIDSON 3239</p>

GEODETIC COORDINATES  
NAD 27 NME.  
SURFACE LOCATION

Y=619873.5 N  
X=662105.9 E

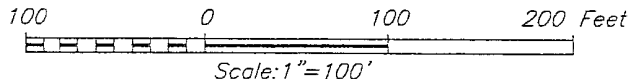
LAT.=32.703023° N  
LONG.=103.806345° W

SECTION 31, TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

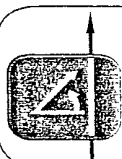
FROM THE INTERSECTION OF COUNTY ROAD H126 (MALJAMAR ROAD) AND COUNTY ROAD H126 (DRY LAKE ROAD), GO NORTH ON COUNTY ROAD H126 (MALJAMAR ROAD) APPROX. 4.25 MILES. TURN LEFT ON CALICHE ROAD AND GO SOUTHWEST APPROX. 0.85 MILES. BEND LEFT AND GO SOUTH APPROX. 0.6 MILES. THIS LOCATION IS APPROX. 125 FEET WEST.



LYNX PETROLEUM CONSULTANTS, INC.

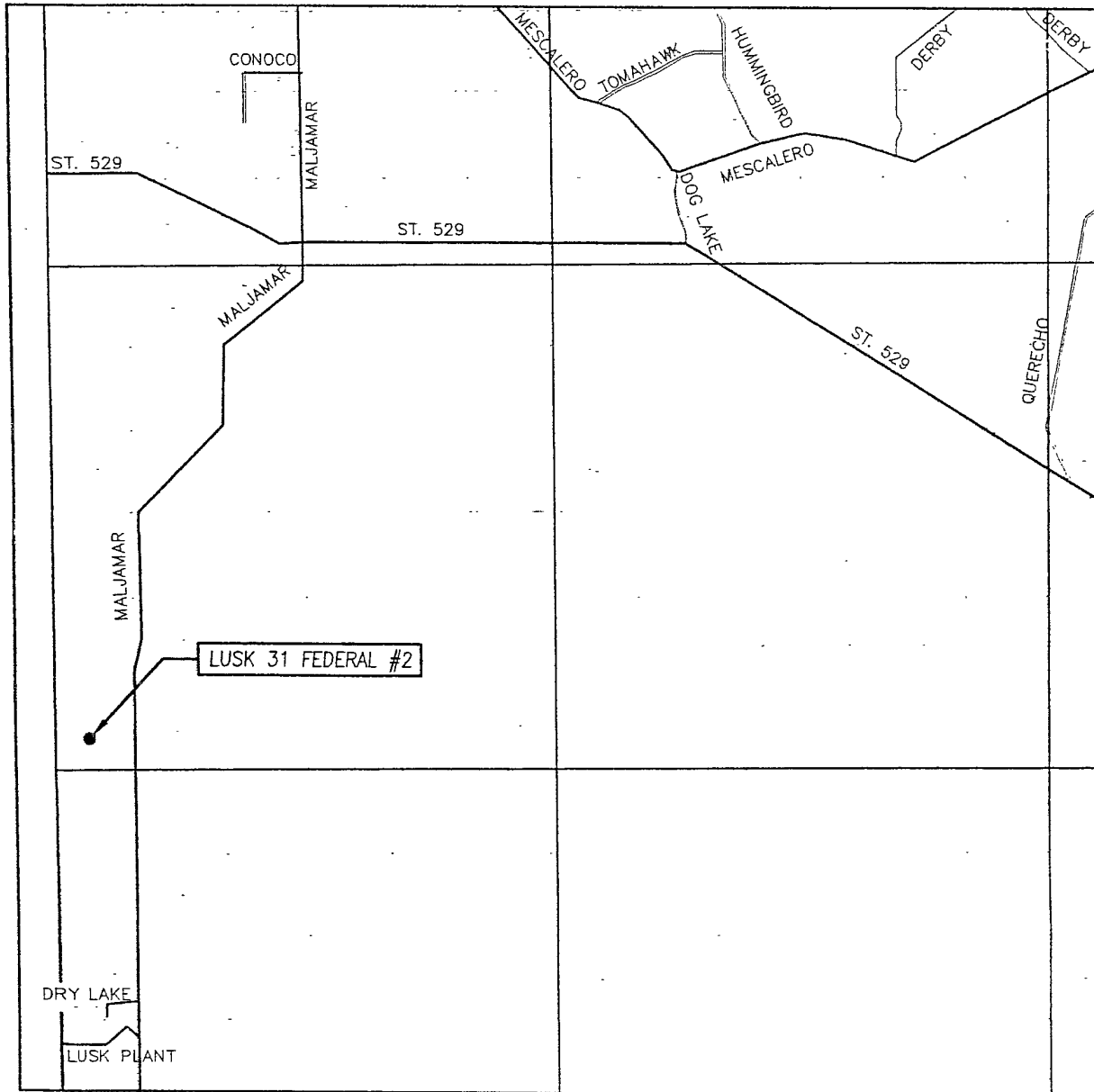
LUSK 31 FEDERAL #2 WELL  
LOCATED 2310 FEET FROM THE SOUTH LINE  
AND 2310 FEET FROM THE WEST LINE OF SECTION 31,  
TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.

Survey Date: 3/29/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.0360	Dr By: DSS
Date: 3/31/08	08110360
	Scale: 1"=100'



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

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 31 TWP. 18-S RGE. 32-E

SURVEY N.M.P.M.

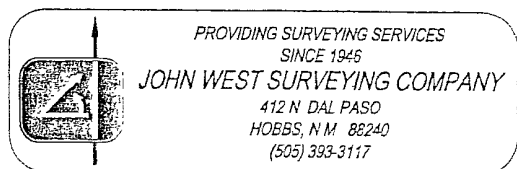
COUNTY LEA STATE NEW MEXICO

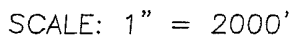
DESCRIPTION 2310' FSL & 2310' FWL

ELEVATION 3674'

OPERATOR LYNX PETROLEUM CONSULTANTS, INC.

LEASE LUSK 31 FEDERAL





CONTOUR INTERVAL: 10'  
GREENWOOD LAKE, NM

SEC. 31 TWP. 18-S RGE. 32-E

SURVEY \_\_\_\_\_ N.M.P.M.

COUNTY LEA STATE NEW MEXICO

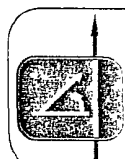
DESCRIPTION 2310' FSL & 2310' FWL

ELEVATION 3674'

OPERATOR LYNX PETROLEUM  
CONSULTANTS, INC.

LEASE                      LUSK 31 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
GREENWOOD LAKE, NM



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

# Lynx Petroleum Consultants, Inc.

P.O. Box 1708  
3325 Enterprise Drive  
Hobbs, New Mexico 88241

505 392-6950 Fax: 505 392-7886

April 21, 2008

Bureau of Land Management  
Carlsbad Field Office  
620 E. Greene St.  
Carlsbad, NM 88220-6292

Re: 2-Lusk 31, Lease LC062903  
1980 FSL 1980 FWL, Sec.31, T18S, R32E, Lea County, NM  
Deficiency Letter dated 4-17-08 copy attached

RECEIVED  
APR 22 PM 3:18  
BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

Gentlemen:

1. Hole sizes: Surface – 17-1/2", Intermediate – 12-1/4", Production – 7-7/8"

Safety Factors:	Burst	Collapse	Joint	Yield
13-3/8"	1.63	3.29	15.6	26.2
8-5/8"	1.00	2.00	5.10	6.90
5-1/2"	1.96	1.37	2.43	2.77

All casing will be new

2. Surface: 1.69 cuft./sx. + 1.32 cuft./sx. or 771 cuft. or 121% excess ← SEE COA'S  
Intermediate 1.97 cuft./sx. + 1.32 cuft./sx. or 1840 cuft. or 70% excess  
Production 1.97 cuft./sx. + 1.32 cuft./sx. or 1840 cuft. or 50% excess

3. Surface: Annular preventer and casing will be tested to 600 psig at nipple up. ← SEE COA  
Intermediate: BOP stack will be tested with a test plug to 5000 psig. Annular preventer and casing will be tested prior to drill out to 1500 psig.

4. Surface: 8.33 PPG; Intermediate: 10.0 PPG; Production: 8.8-9.3 PPG

5. BHP – 4500 psig; BHT – 71 deg. C

6. Office: 575-392-6950; Cell: 575-390-9063; Cell: 575-390-9065

7. Proposed TD is 9800 ft.

8. What is the BLM requirement? This is same schematic we have submitted with every APD to this depth for the last 25 years.

9. No – Wolfcamp top will be at 10,034 ft.

10. We will comply with this when new plat page has been received from the surveyors.

Sincerely,

LYNX PETROLEUM CONSULTANTS, INC.

  
Larry R. Scott

## DRILLING PROGRAM

Lynx Petroleum Consultants, Inc.  
Lusk Federal '31' No. 2

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 :

Rustler	-	1010'
Yates	-	2760'
Queen	-	3625'
Delaware	-	4970'
Bone Spring	-	6720'
Bone Spring 1 <sup>st</sup> Sd	-	8090'
Bone Spring 3 <sup>rd</sup> Sd	-	9670'

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

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

\* Productive horizons to be protected by 5 1/2" casing and cement.

4. PROPOSED CASING PROGRAM :

SEE COAS

13 3/8"	0' - <sup>1100'</sup> 500'	48.0#	H-40	ST&C
8 5/8"	0' - <sup>2100'</sup> 2650'	32.0#	J-55	ST&C
5 1/2"	0' - 9800'	17.0#	N-80	LT&C

5. PROPOSED CEMENT PROGRAM :

20" Conductor - Cemented with ready mix to surface.

13 3/8" Surface - 300 sxs Class "C" + 4% Gel + 2% CaCl<sub>2</sub>  
followed by 250 sxs Class "C" + 2% CaCl<sub>2</sub>.

T.O.C. @ surface

8 5/8" Intermediate - First stage 800 sxs Class "C" Poz followed by



DRILLING PROGRAM  
Lusk Federal '31' No. 2

200 sxs Class "C". TOC @ surface

SEE COA 5 1/2" Production - First stage 800 sxs Class "C" Poz followed by  
400 sxs Class "C". TOC @ 2600'

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 COAs 1100' 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'.  
2700'

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.

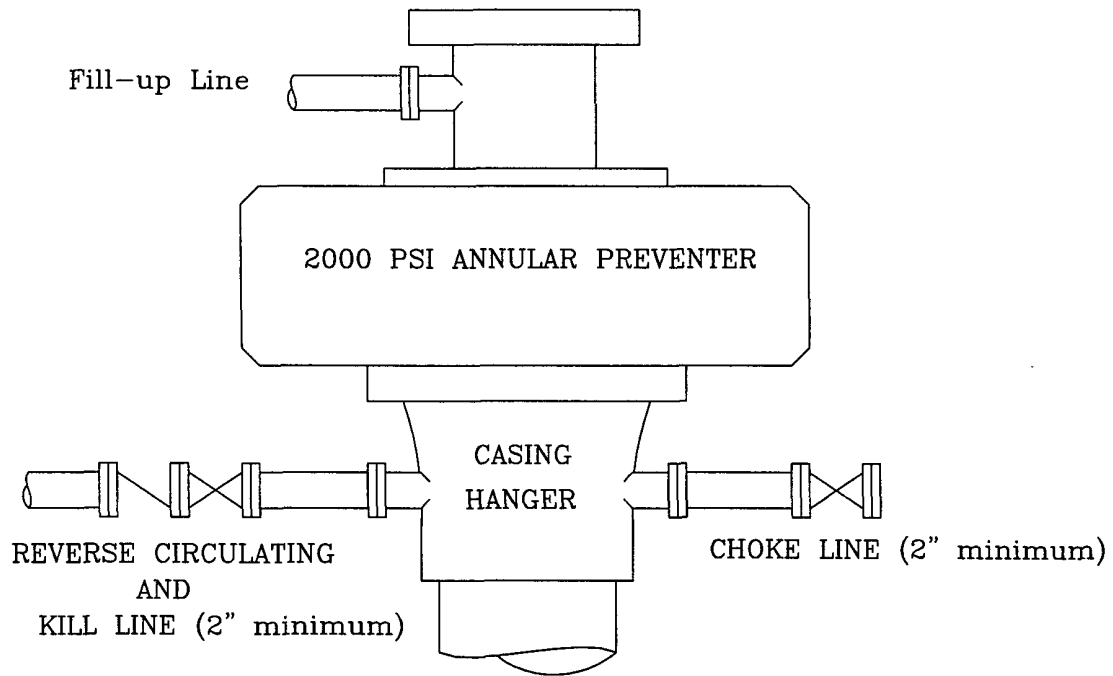
9. TESTING, LOGGING, AND CORING PROGRAM :

Samples	- 2650' – 9800'
D.S.T.'s	- No D.S.T.'s are planned
Logging	- Gamma Ray – CNL – FDC – DLL
Coring	- No coring is planned

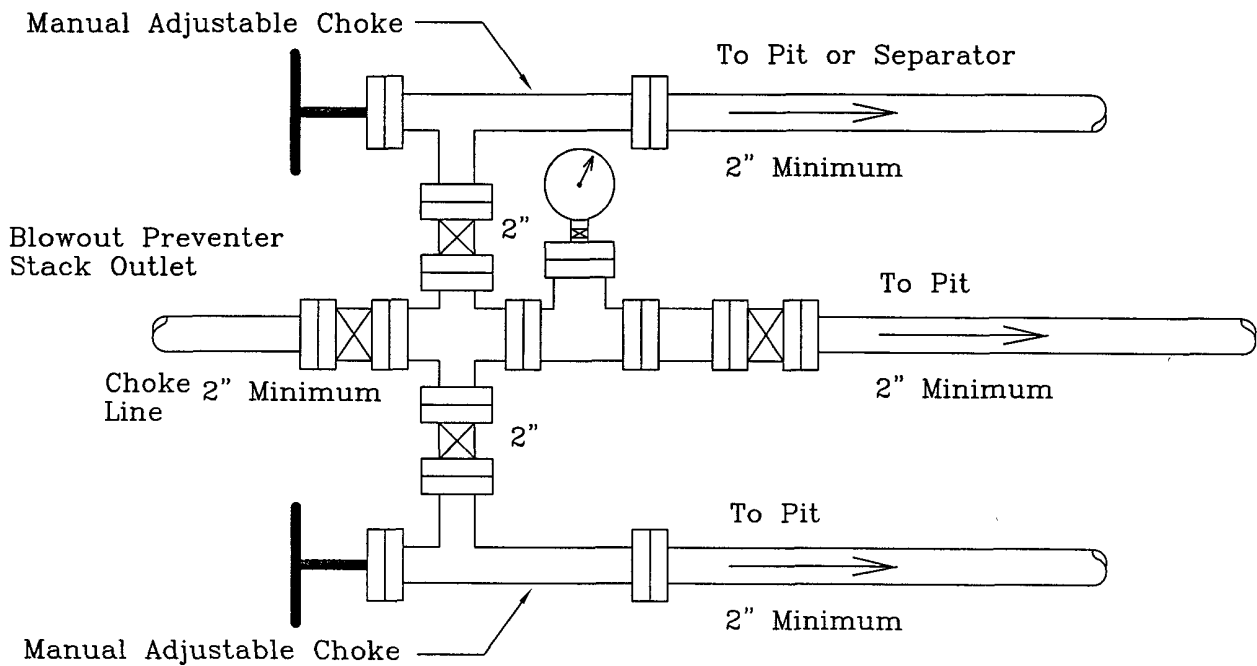
10. ABNORMAL PRESSURES AND TEMPERATURES : None anticipated.

11. ANTICIPATED STARTING DATE : Drilling will commence about June 15, 2008. Drilling should be complete within 30 days. Completion operations (perforations and stimulation) will follow drilling operations.

# INTERMEDIATE HOLE SECTION



2000 PSI WORKING PRESSURE



2000 PSI WORKING PRESSURE

TEST CASING AND ANNULAR PREVENTOR TO 600 psig

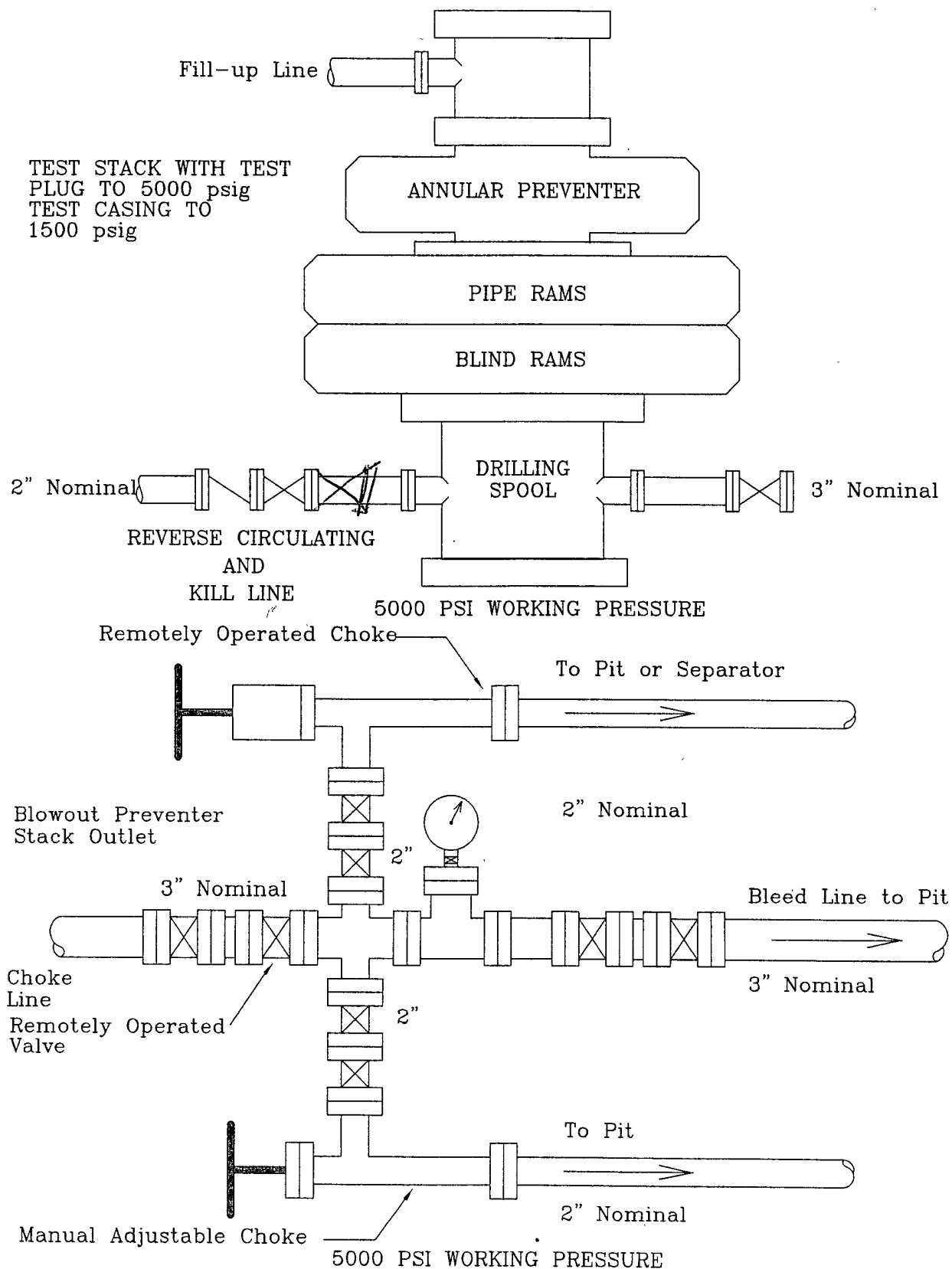
Location: NE/4 SW/4  
Sec. 31, T-18S, R-32E  
Lea County, NM

Lusk Federal '31' No. 2  
BLOWOUT PREVENTER AND CHOKE MANIFOLD

Scale: None

2/27/08

# PRODUCTION HOLE SECTION



Location: NE/4 SW/4  
 Sec. 31, T-18S, R-32E  
 Lea County, NM

Lusk Federal '31' No. 2  
 BLOWOUT PREVENTER AND CHOKE MANIFOLD

2/27/08

Scale: None

LYNX PETROLEUM CONSULTANTS, INC.  
HYDROGEN SULFIDE DRILLING OPERATIONS  
LUSK '31' FEDERAL NO. 2

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<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S 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<sub>2</sub>S 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<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site.

II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS

Note : All H<sub>2</sub>S 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<sub>2</sub>S.

## DRILLING OPERATIONS

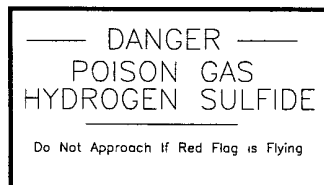
### Lusk '31' Federal No. 2

1. Well Control Equipment :
  - A. Flare line with electronic igniter or continuous pilot.
  - B. Choke manifold with a minimum of one remote choke.
  - C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
  - D. Auxiliary equipment to include : annular preventer, mud-gas separator, and flare gun with flares.
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<sub>2</sub>S detection and monitoring equipment :
  - A. 2 – portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S levels of 20 ppm are reached.
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 will 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<sub>2</sub>S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.
  - B. A mud-gas separator will be utilized if needed.

## DRILLING OPERATIONS

Lusk '31' Federal No. 2

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<sub>2</sub>S service.
  - B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.
7. Communication :
  - A. Communications in company vehicles are provided by cellular telephones.
  - B. Land line (telephone) communications at Hobbs office.
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<sub>2</sub>S environment will use the closed chamber method of testing.



## SURFACE USE PLAN

Lynx Petroleum Consultants, Inc.  
Lusk '31' Federal No. 2  
1980' FSL and 1980' FWL  
Section 31, T-18S, R-32E  
Lea County, NM

This plan is submitted with the "Application for Permit to Drill" the subject well. The purpose of the plan is to determine the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation, so that a complete appraisal can be made of the environmental effects associated with the operation.

LOCATED : 11 air miles south southwest of Maljamar, New Mexico

OIL & GAS LEASE : LC 062903

ACRES IN LEASE : 162.79

RECORD LESSEE : S & J Operating Company, P.O. Box 2249  
Wichita Falls, TX 76307

BOND COVERAGE : \$25,000 statewide bond.

SURFACE OWNER : U. S. Government with grazing rights allotted to  
Richardson Cattle Company, P.O. Box 487, Carlsbad,  
NM 88221

WELL SPACING : 40 acres. (Bone Spring Oil)

### 1. EXISTING ROADS :

- A. The wellsite is 1980' FSL and 1980' FWL of Section 31, T-18S, R-32E, Lea County, NM.
- B. Attached is a road map showing the proposed location, existing roads, and the proposed access road. The well is approximately 11 miles south southwest of Maljamar, NM.
- C. Directions : From the intersection of county road 126 and state highway 529 drive south on county road 126 for 5.8 miles. Turn southwest onto a caliche lease road for 0.8 miles then south for 0.7

2. PLANNED ACCESS ROAD :

- A. Length and Width : Existing lease roads will be utilized for access to the extent possible. Approximately 125' of new road bladed 12' wide with 2' shoulders will be required.
- B. Turnouts : None.
- C. Drainage Design : Road will have a drop of 2" from the center line on each side.
- D. Culverts, Cuts, and Fills : None.
- E. Surfacing Material : Four inches of caliche, bladed, watered, and compacted.
- F. Gates, Cattleguards, and Fences : None.
- G. The proposed road is staked.

3. LOCATION OF EXISTING WELLS :

- A. Existing wells are shown on the attached Lease Plat

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES :

- A. Existing Facilities : None
- B. New Facilities : On wellsite pad.

5. LOCATION AND TYPE OF WATER SUPPLY :

6. SOURCE OF CONSTRUCTION MATERIAL :

- A. Caliche will be hauled from the nearest approved pit.

7. METHODS OF HANDLING WASTE DISPOSAL :

- A. Drill cuttings will be disposed of in the drill pit.
- B. Drilling fluids will be allowed to evaporate in the drill pits until the pits are dry.



**SURFACE USE PLAN**

LUSK '31' FEDERAL No. 2

- C. Water produced during testing will be disposed of in the drill pits. Oil produced during testing will be stored in the test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper and garbage will be contained in a fenced trash trailer and disposed of in an approved landfill.

8. ANCILLARY FACILITIES :

- A. None required.

9. WELLSITE LAYOUT :

- A. The attached rig layout plat indicates the relative location and dimensions of the well pad, mud pits, reserve pit and major rig equipment.
- B. The reserve pit will be lined with plastic to prevent loss of water and contain the drilling mud.

10. PLANS FOR RESTORATION OF THE SURFACE :

- A. After completion of drilling and/or completion operations all equipment and other material not needed for producing operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are backfilled.
- C. If the well is non-productive, the disturbed area will be rehabilitated to Federal Agency requirements, and will be accomplished as expeditiously as possible.

11. OTHER INFORMATION :

- A. Terrain : Low rolling hills.
- B. Soil : Sandy.
- C. Vegetation : Mesquite, creosote, and grasses.
- D. Surface Use : Grazing.

- E. Ponds and Streams : None within 1.0 mile.
- F. Water Wells : None within 1.0 mile.
- G. Residences and Buildings : None within 1.0 mile.
- H. Arroyos, Canyons, Etc. : None within 1.0 mile.
- I. Well Sign : A sign identifying and locating the well will be maintained at the wellsite.
- J. Archeological, Historical and Other Cultural Sites : An agent with the \_\_\_\_\_ conducted an archeological survey of the access road, powerline, well pad and gas pipelines. They will furnish a report and recommendation to the B. L. M. in Carlsbad, NM.
- K. Surface Ownership : The access road and wellsite are located on Public surface.

12. OPERATOR'S REPRESENTATIVE :

Larry R. Scott  
P. O. Box 1708  
Hobbs, NM 88241  
Phone – (505) 392-6950      Fax – (505) 392-7886

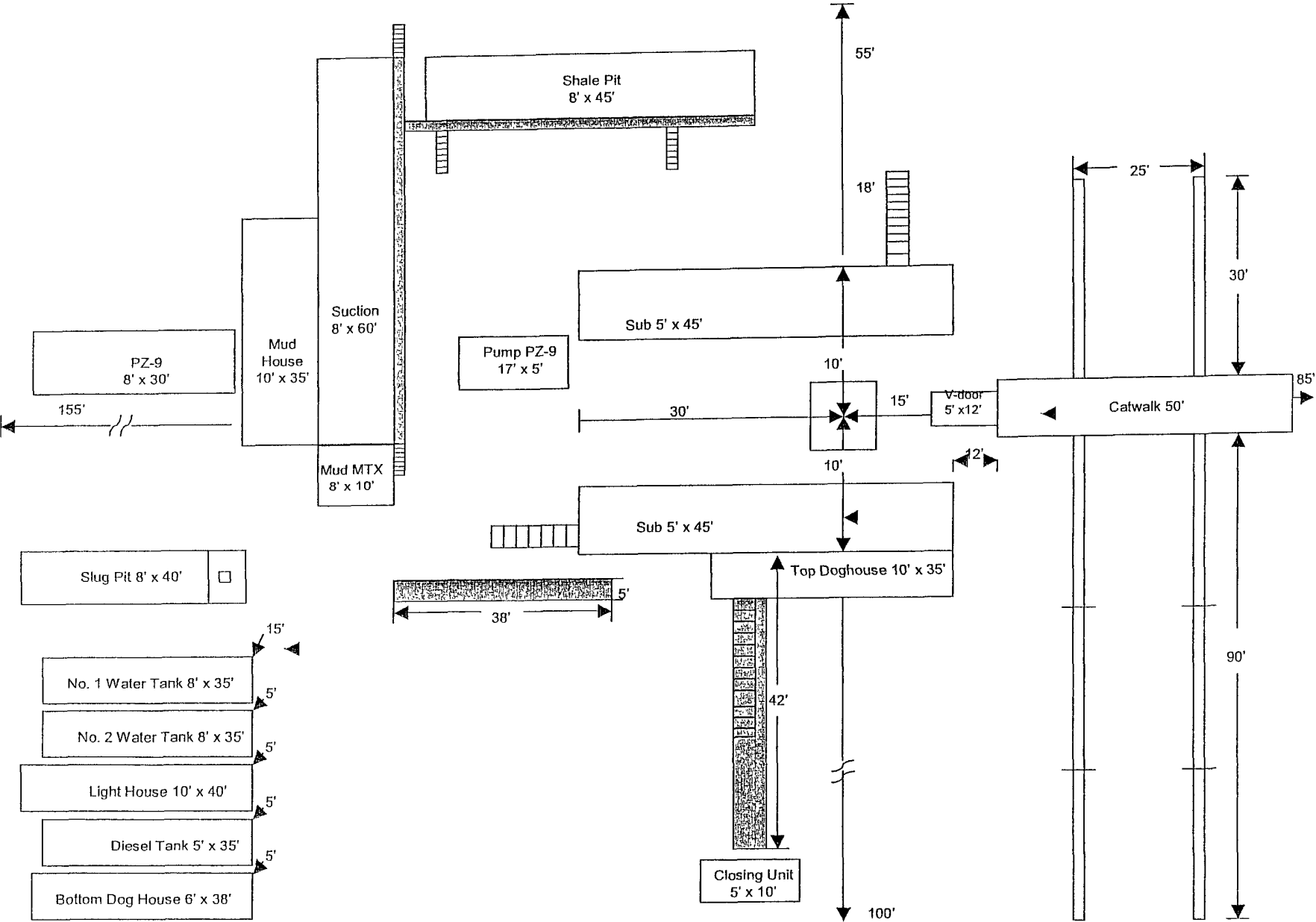
13. CERTIFICATION :

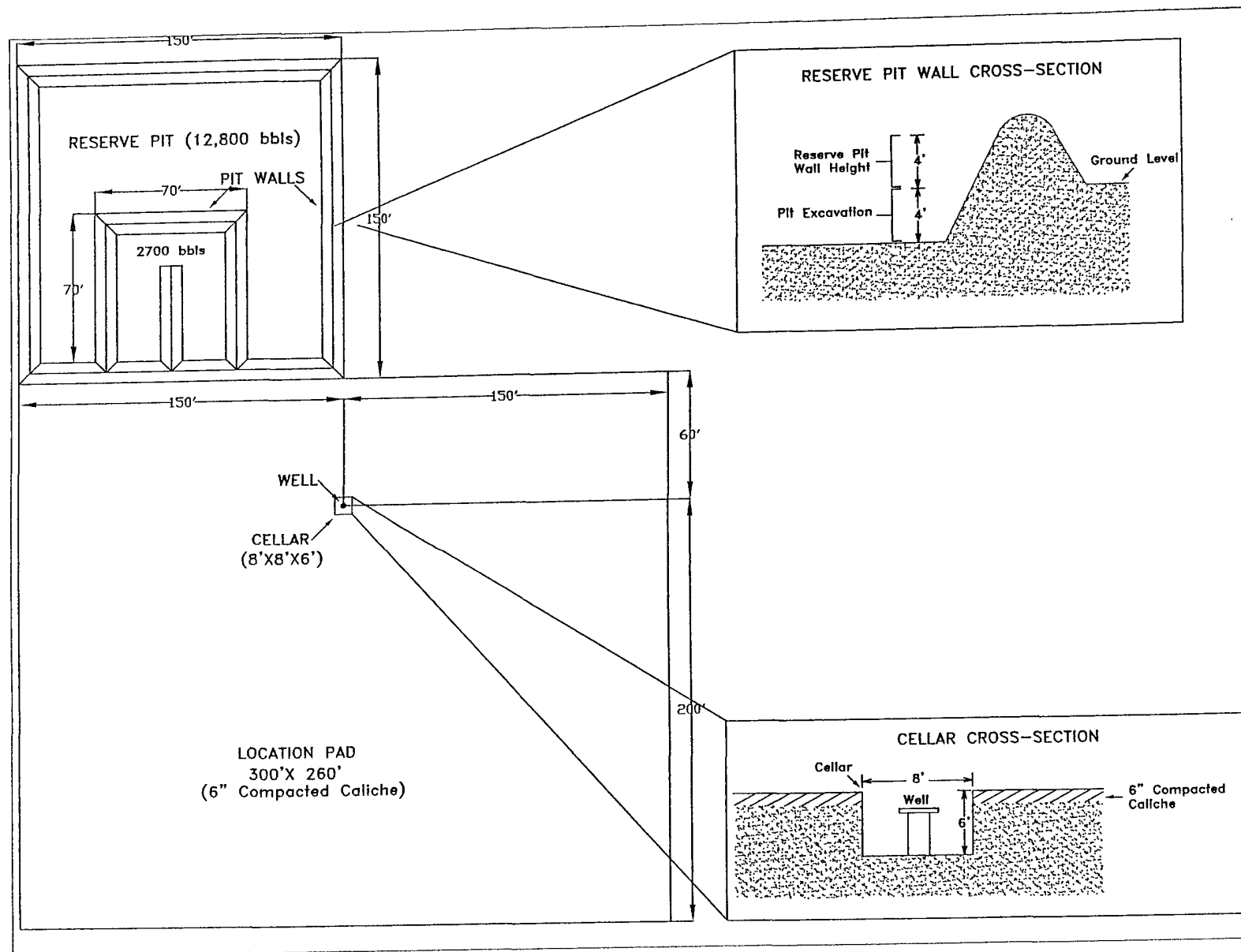
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route ; that I am familiar with the conditions which presently exist ; that the statements made in this plan are, to the best of my knowledge, true and correct ; that the work associated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

4-8-2008  
DATE

  
LARRY R. SCOTT – PRESIDENT

McVay Drilling Rig No. 4





District I  
1625 N French Dr, Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

<b>Lynx Petroleum</b>		
Operator	Consultants, Inc. Telephone: 575-392-6950 e-mail address: lynxpet@leaco.net	
Address	P.O. Box 1708, Hobbs, NM 88241	
Facility or well name	Lusk 31 Federal No 2	API #: U/L or Qtr/Qtr NESW Sec 31 T 18-SR 32-E
County	Lea	Latitude 32.702118'N Longitude 103.807415'W NAD. 1927 <input type="checkbox"/> 1983 <input type="checkbox"/>
Surface Owner	Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>	
<b>Pit</b>	<b>Below-grade tank</b>	
Type Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Pit Volume 15,000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) <u>100 feet or more</u> (0 points)	0
Wellhead protection area (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)	Yes (20 points) <u>No</u> (0 points)	0
Distance to surface water (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <u>1000 feet or more</u> (0 points)	0
<b>Ranking Score (Total Points)</b>		<b>0</b>

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks (2) Indicate disposal location. (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_. (3) Attach a general description of remedial action taken including remediation start date and end date (4) Groundwater encountered. No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft and attach sample results.

(5) Attach soil sample results and a diagram of sample locations and excavations

Additional Comments	<i>Pit started before 6/16/08 - waiting on drilling rig.</i>

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date 04/08/08

Printed Name/Title President

Signature *Darryl Scott*

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations

Approval

Printed Name/Title CHRIS WILLIAMS/DIST. SUPV.

Signature *Chris Williams*

Date 8/14/08

DISTRICT I  
1025 N. FRENCH DR., BOBBS, NM 88240

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

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

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

☐ AMENDED REPORT

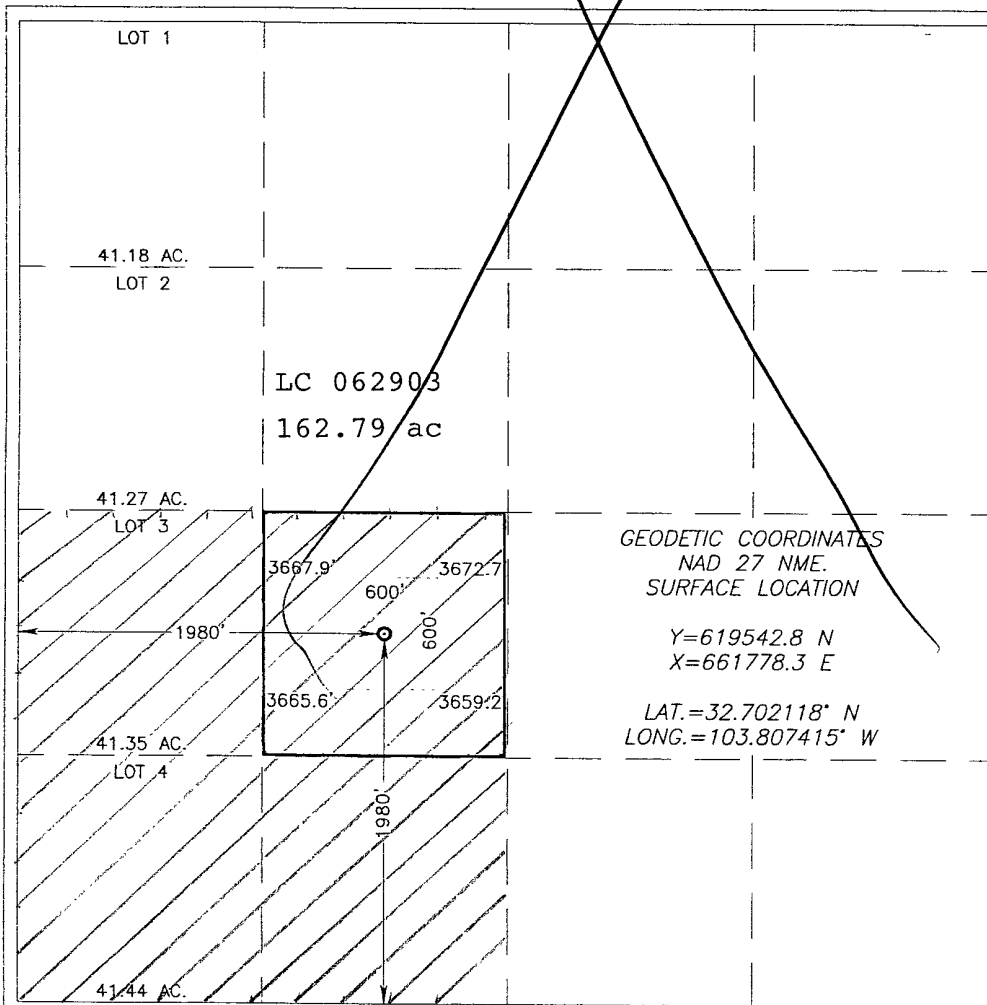
API Number	Pool Code 41450	Pool Name Lusk; Bone Spring, North
Property Code	Property Name LUSK 31 FEDERAL	Well Number 2
OGRID No. 013645	Operator Name LYNX PETROLEUM CONSULTANTS, INC.	Elevation 3669'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	31	18-S	32-E		1980	SOUTH	1980	WEST	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 40	Joint or Infill	Consolidation Code	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



GEODETIC COORDINATES  
NAD 27 NME.  
SURFACE LOCATION

Y=619542.8 N  
X=661778.3 E  
LAT.=32.702118° N  
LONG.=103.807415° W

**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 \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

**SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 29 2008

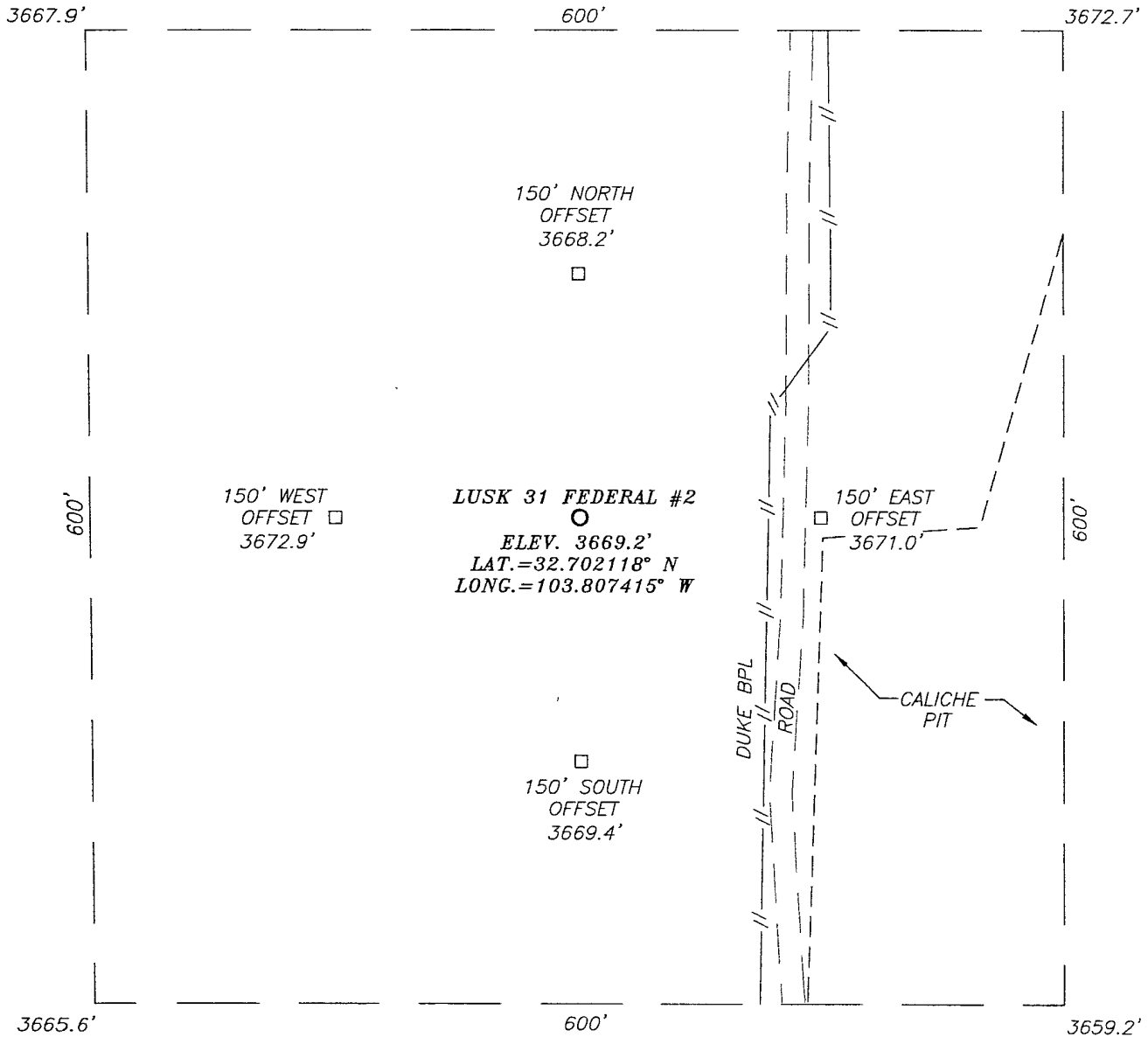
Date Surveyed \_\_\_\_\_ DSS

Signature & Seal of Professional Surveyor

3239  
08.11.0360

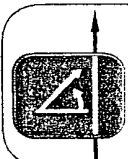
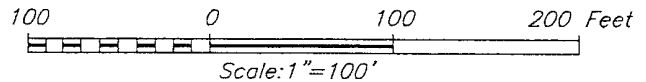
Certificate No. GARY G. EIDSON 12641  
RONALD J. EIDSON 3239

**SECTION 31, TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,**  
 LEA COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF COUNTY ROAD H126 (MALJAMAR ROAD) AND COUNTY ROAD H126 (DRY LAKE ROAD), GO NORTH ON COUNTY ROAD H126 (MALJAMAR ROAD) APPROX. 4.25 MILES. TURN LEFT ON CALICHE ROAD AND GO SOUTHWEST APPROX. 0.85 MILES. BEND LEFT AND GO SOUTH APPROX. 0.6 MILES. THIS LOCATION IS APPROX. 125 FEET WEST.



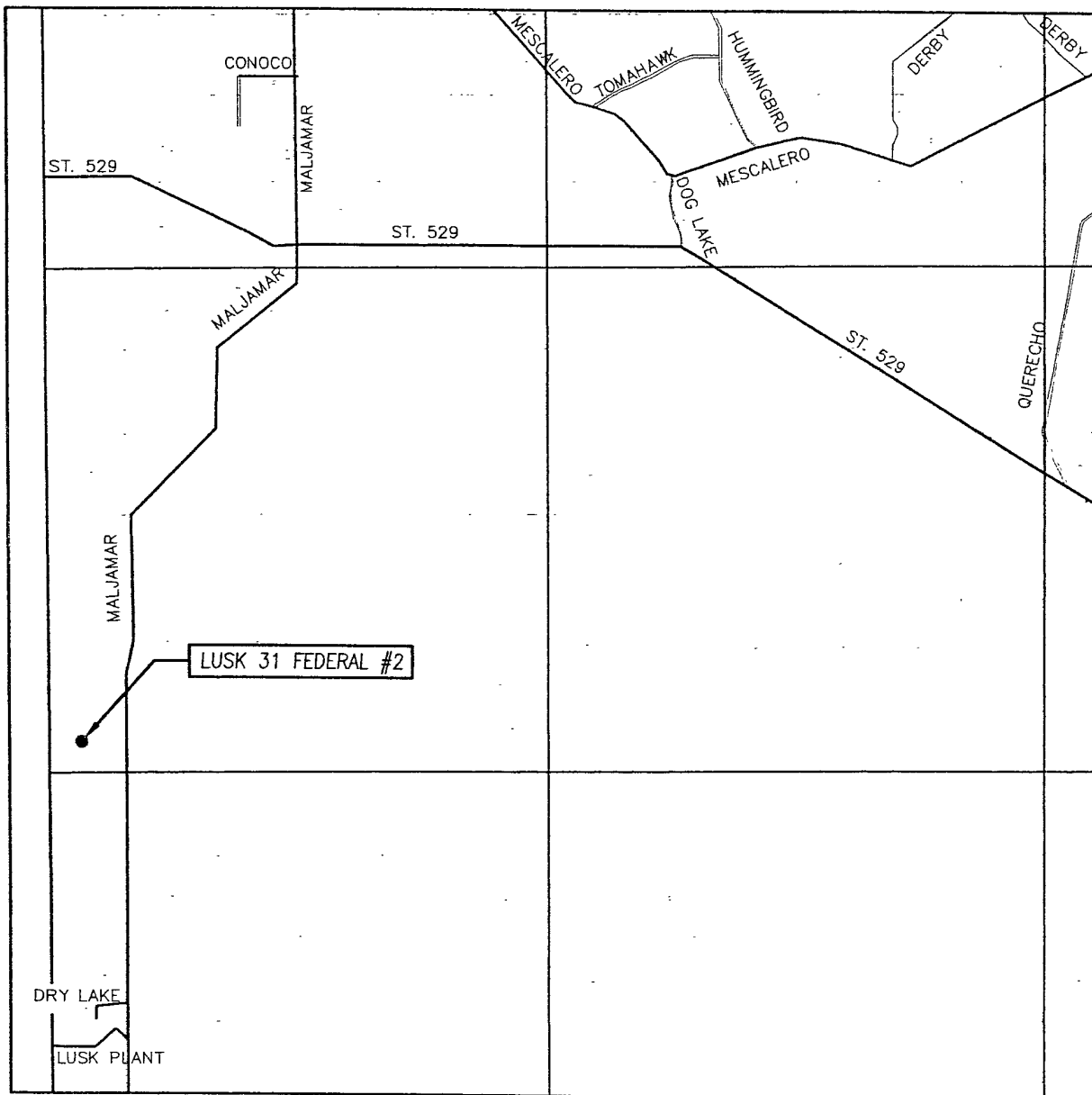
PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

**LYNX PETROLEUM CONSULTANTS, INC.**

LUSK 31 FEDERAL #2 WELL  
 LOCATED 1980 FEET FROM THE SOUTH LINE  
 AND 1980 FEET FROM THE WEST LINE OF SECTION 31,  
 TOWNSHIP 18 SOUTH, RANGE 32 EAST, N.M.P.M.,  
 LEA COUNTY, NEW MEXICO.

Survey Date: 3/29/08		Sheet 1 of 1 Sheets	
W.O. Number: 08.11.0360		Dr By: DSS	Rev 1:N/A
Date: 3/31/08		08110360	Scale:1"=100'

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 31 TWP. 18-S RGE. 32-E

SURVEY N.M.P.M.

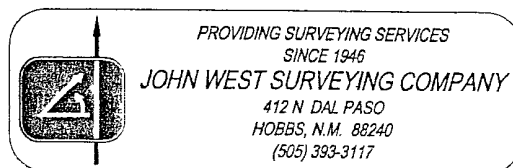
COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1980' FSL & 1980 FWL

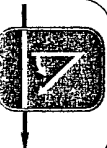
ELEVATION 3669'

OPERATOR LYNX PETROLEUM CONSULTANTS, INC.

LEASE LUSK 31 FEDERAL







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

U.S.G.S. TOPOGRAPHIC MAP  
 GREENWOOD LAKE, NM

LEASE  
 LUSK 31 FEDERAL

OPERATOR  
 LYNX PETROLEUM  
 CONSULTANTS, INC.

ELEVATION  
 3669'

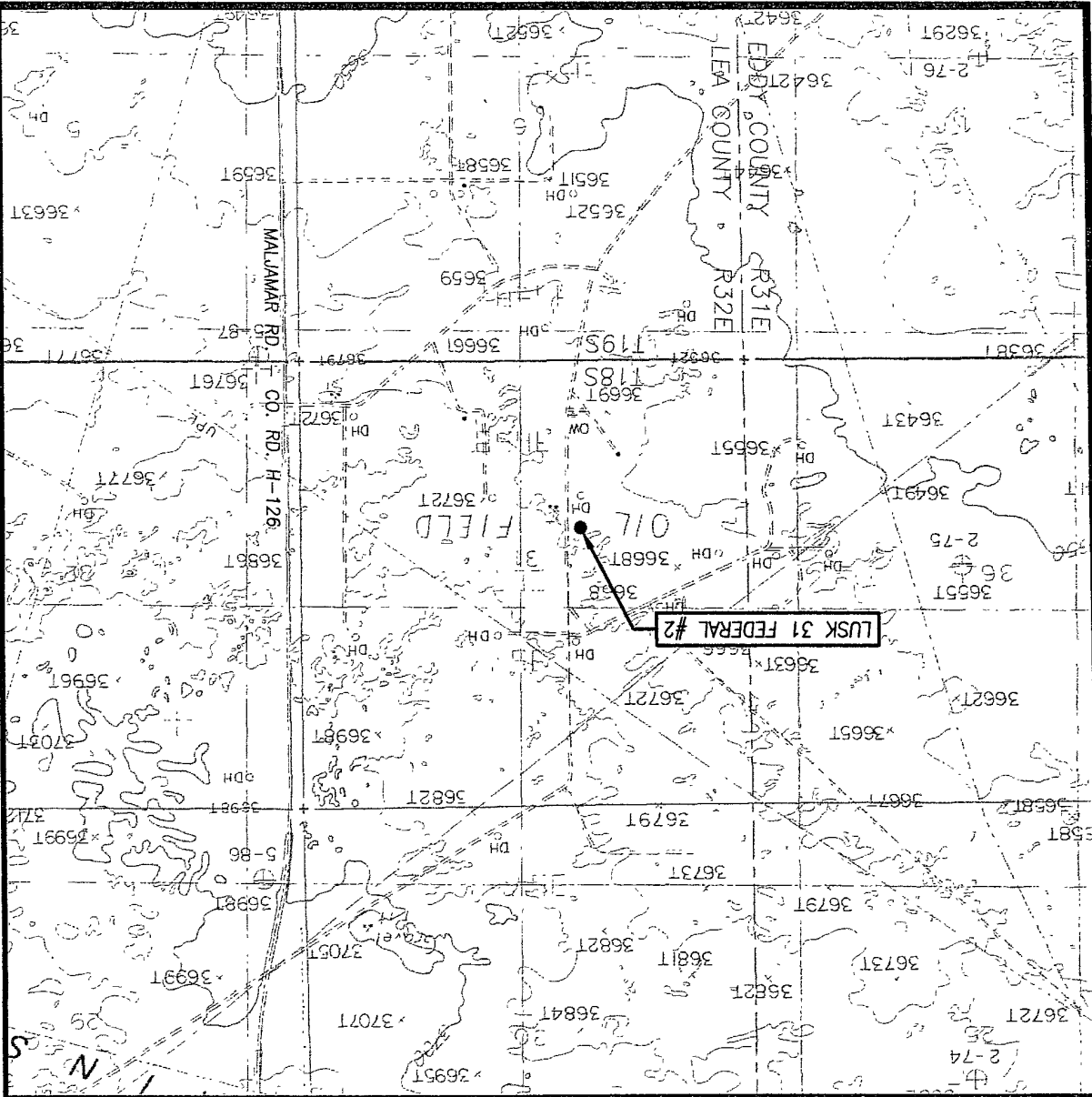
DESCRIPTION 1980' FSL & 1980 FWL

COUNTY LEA STATE NEW MEXICO

SURVEY N.M.P.M.

SEC. 31 TWP. 18-S RGE. 32-E

SCALE: 1" = 2000'  
 CONTOUR INTERVAL: 10'  
 GREENWOOD LAKE, NM



LOCATION VERIFICATION MAP

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Lynx Petroleum Consultants
LEASE NO.:	LC-062903
WELL NAME & NO.:	2-Lusk 31
SURFACE HOLE FOOTAGE:	2310' FSL & 2310' FWL
BOTTOM HOLE FOOTAGE	
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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Lesser Prairie Chicken
- ☐ **Construction**
  - Notification
  - Topsoil
  - Reserve Pit
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
- ☐ **Reserve Pit Closure/Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

## **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 15 through June 15 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.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 234-5972 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 to be stripped is approximately 8 inches in depth. 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 East 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 (505) 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.

## 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. BOP/BOPE tests

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

1. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated **500** feet prior to drilling into the Yates Formation. 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 are located, this does not include the dog house or stairway area.

### B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work.**

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

**Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string.**

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

**Possible H<sub>2</sub>O/brine flows in Salado & Artesia Group  
Wolfcamp Formation possibly overpressured**

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 spud mud shall be used to setting depth. Additional cement may be required to bring cement 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 will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).
  - 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-d above.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - ☒ 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 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. 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. A variance to test the surface casing and BOP/BOPE (**entire system**) to the reduced pressure of 1000 psi with the rig pumps is approved.

### D. DRILL STEM TEST

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

LB 6/04/08

## **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:

<u>Species</u>	<u>lb/acre</u>
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

(Insert Seed Mixture Here)

## **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.

---