

ATS-09-211

RECEIVED

OCD-HOBBS

392

Secretary's Petach

JUN 20 2009

Form 3160-3
(February 2005)

HOBBSOCD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5 Lease Serial No. NM-10474	
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	
2 Name of Operator Fasken Oil and Ranch, Ltd.		7 If Unit or CA Agreement, Name and No	
3a Address 303 West Wall St., Suite 1800 Midland, TX 79701		8 Lease Name and Well No. 18167 Ling Federal No. 9	
3b Phone No. (include area code) 432-687-1777		9 API Well No. 30-025-39454	
4 Location of Well (Report location clearly and in accordance with any State requirements*) At surface 790' FNL & 1980' FWL At proposed prod zone 790' FNL & 1980' FWL		10 Field and Pool, or Exploratory Apache Ridge Bone Springs 3260	
11 Sec., T R M or Blk and Survey or Area Sec. 31, T19S, R34E		12 County or Parish Lea	
13 State NM		14 Distance in miles and direction from nearest town or post office* 29 miles Southwest from Hobbs.	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 530'		16 No. of acres in lease 40	
17 Spacing Unit dedicated to this well 40 acres, NE / NW of Sec. 31		18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft N/A	
19 Proposed Depth 9800'		20 BLM/BIA Bond No. on file NM 2729 Statewide Bond	
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3629' GL		22 Approximate date work will start* 06/15/2009	
23 Estimated duration 30 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 | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2. A Drilling Plan | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Kim Tyson</i>	Name (Printed/Typed) Kim Tyson	Date 02/09/2009
-----------------------------------	-----------------------------------	--------------------

Title Regulatory Analyst		
-----------------------------	--	--

Approved by (Signature) <i>Linda S.C. Rundell</i>	Name (Printed/Typed) Linda S.C. Rundell	Date JUN 18 2009
--	--	---------------------

Title STATE DIRECTOR	Office NM STATE 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 USC Section 1001 and Title 43 USC 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)

K2

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Fasken Oil and Ranch, Ltd.

Ling Lake Federal No. 9

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws application to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 5th day of February 2009.

Tommy C. Taylor
Signature

Name: Tommy Taylor

Position: Drilling Manager

Address: 303 West Wall, Suite 1800
Midland, TX 79701

Telephone: (432) 687-1777

Email: tommyt@forl.com

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

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RECEIVED
JUN 26 2009
HOBBSOCD

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-39454	Pool Code 2260	Pool Name Apache Ridge; Bone Springs
Property Code 18167	Property Name LING FEDERAL	Well Number 9
OGRID No. 151416	Operator Name FASKEN OIL AND RANCH, LTD	Elevation 3629'

Surface Location

UL or lot No. C	Section 31	Township 19 S	Range 34 E	Lot Idn	Feet from the 790	North/South line NORTH	Feet from the 1980	East/West line WEST	County LEA
---------------------------	----------------------	-------------------------	----------------------	---------	-----------------------------	----------------------------------	------------------------------	-------------------------------	----------------------

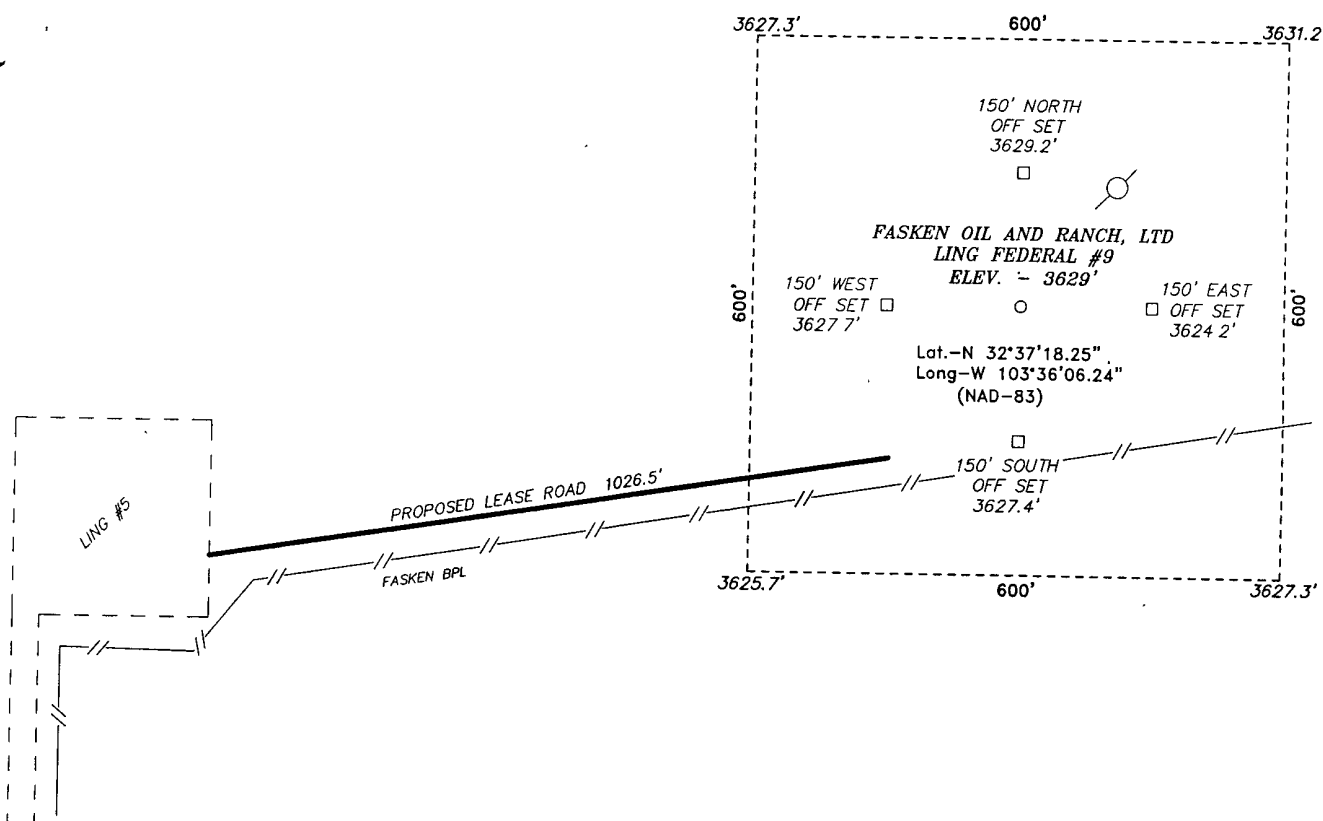
Bottom Hole Location If Different From Surface

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

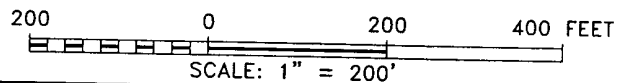
	<p><u>SURFACE LOCATION</u> Lat - N32°37'18.25" Long - W103°36'06.24" NMSPCE - N 590693.472 E 766583.482 (NAD-83)</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns 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.</p> <p><u>Kim Tyson</u> 2-9-09 Signature Date</p> <p><u>Kim Tyson</u> Printed Name</p>
		<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</p> <p>JANUARY 14 2009 Date Surveyed</p> <p><u>GARY L. JONES</u> Signature of Professional Surveyor</p> <p>W.O. 7977</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>

SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF HWY 62-180 AND SMITH RANCH, GO NORTH 1.5 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 0.8 MILES TO LEASE ROAD, GO NORTH 0.1 MILES TO LING #5 AND PROPOSED LEASE ROAD.



FASKEN OIL AND RANCH, LTD

REF LING FEDERAL #9 / WELL PAD TOPO

THE LING FEDERAL #9 LOCATED 790' FROM
THE NORTH LINE AND 1980' FROM THE WEST LINE OF
SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 21029

Drawn By: J. M. SMALL

Date: 01-14-2009

Disk: JMS 21029

Survey Date: 01-14-2009

Sheet 1 of 1 Sheets

APPLICATION FOR PERMIT TO DRILL

Fasken Oil and Ranch, Ltd.

Ling Federal No. 9

790' FNL and 1980' FWL

Sec. 31, T19S, R34E

Lea County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Fasken Oil and Ranch, Ltd. submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1 The geologic surface formation is of Permian age. Ground elevation is 3629'.

2 Estimate tops of geologic markers are as follows:

Rustler	1500'
Yates	3400'
Queen	4550'
San Andres	5150'
Delaware	5700'
Bone Springs	8250'
1 st Bone Springs Sand	9400'

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

Yates	3400'	Oil
San Andres	5150'	Oil
Bone Springs	8250'	Oil

* Groundwater to be protected by 13-3/8" surface casing with cement circulated to the surface.

** Potentially productive horizons to be protected by 5-1/2" production casing with cement tied back to 5000'.

4 Proposed Casing Program: All casing strings will new pipe. Minimum design safety factors are 1.0 for burst, 1.125 for collapse and 1.8 for tension on 8rd threaded pipe.

String	Footage	Hole Size	Casing Size	Weight	Grade	Thread
Surface	1100'	17-1/2"	13-3/8"	48.00#	H-40	ST&C
	450'		13-3/8"	54.50#	K-55	ST&C
	1550'					
Intermediate	5200'	12-1/4"	8-5/8"	32 00#	K-55	LT&C
Production	9750'	7-7/8"	5-1/2"	17.00#	N-80	LT&C
Tubing	9600'		2-3/8"	4.70#	N-80	EUE 8 rd

5 Proposed Cementing Program:

See
COA

Cement 13-3/8" casing with 600 sx Class "C" cement with 4% gel and 2% CaCl₂ (s.w. 13.5 ppg, yield 1.74 cuft/sx) plus 400 sx Class "C" with 2% CaCl₂ (s.w. 14.8 ppg, yield 1.32 cuft/sx). Circulate cement to surface.

Cement 8-5/8" casing with DV tool at 3300' as follows;

- First Stage: Note, batch mix lead slurry 10 bfw + 500 gallons Super Flush 102 + 10 bfw and 650 sx HLC with 6# salt, 5# Gilsomite (s.w. 12.6 ppg, yield 2.01 ft³/sx) plus 350 sx Class "C" (s.w. 14.8 ppg, yield 1.32 ft³/sx). Open DV tool and circulate 6 hours.
- Second stage. 20 bfw + 1375 sx HLC with 6# salt, 1/8# Poly-E-Flake (s.w. 12.6 ppg, yield 2.04 ft³/sx) plus 300 sx Class "C" with 1% CaCl₂ (s.w. 14.8 ppg, yield 1.32 ft³/sx). Calculate second stage cement volume to circulate to surface.

6. Set 5-1/2" casing at TD (Resin coat and centralize through all prospective pay zones), and cement with DV tool at estimate 8400' as follows; *See COA*

- First Stage: Note, batch mix lead slurry. 10 bfw + 500 gallons Mud Flush 102 + 10 bfw and 450 sx Super "H" Modified with 0.5% LAP-1, 0.4% CFR-3, 5# gilsomite, 1/8# Poly-E-Flake and 0.2% HR-7 (s.w. 13.2 ppg, yield 1.60 ft³/sx). Open DV tool and circulate 6 hours.
- Second stage: 20 bfw + 400 sx Halliburton Light "H" with 1/8# Poly-E-Flake (s.w. 12.6 ppg, yield 1.93 ft³/sx) plus 200 sx Class "H" with 0.5% Halad-9 (s.w. 15.6 ppg, yield 1.18 ft³/sx) Calculate second stage cement volume for TOC at 5000'.

7. Pressure Control Equipment: Operator request variance and proposes to NU 13-5/8" 3000# annular BOP on the 13-3/8" casing and pressure test BOP ~~with rig pump~~ to 1000 psig prior to drilling out the 13-3/8" casing shoe. An 11" x 3000# BOP will be NU on the 8-5/8" casing see exhibit #5 (11" 3000# BOP) and the 8-5/8" casing and BOP stack will be hydrotested before drilling out the shoe joint. Hydrotest will included testing the rams, choke line, choke manifold, upper and lower kelly valves and floor safety valves to 3000 psig high and 300 psig low. The annular preventor will be hydrotested to 1500 psig high and 300 psig low. Additional BOP Hydrotesting will be performed after any pressure seal is broken, following any BOP repair and at 30 day intervals. *See COA*

8. Mud Program:

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Waterloss</u>
0-1550'	Fresh Water	8.5	40	N.C.
1550'-5200'	Brine Water	10.0-10.5	29	N.C.
5200'-9000'	Fresh Water	8.4-8.8	28	N.C.
9000'-9,750'	Gel/Starch/PAC	9.0-10.0	30	12 cc

9. Auxiliary Equipment: Upper Kelly Cock, Full Opening Stabbing Valve, PVT.

10. Testing Logging and Coring Programs.

- DST's: None anticipated.

- Logging: 2-man Mudlogging unit from 5200' to T.D.

- Electric Logs: Platform Express with CNL-LDT, DLL-MSFL, GR and Caliper.

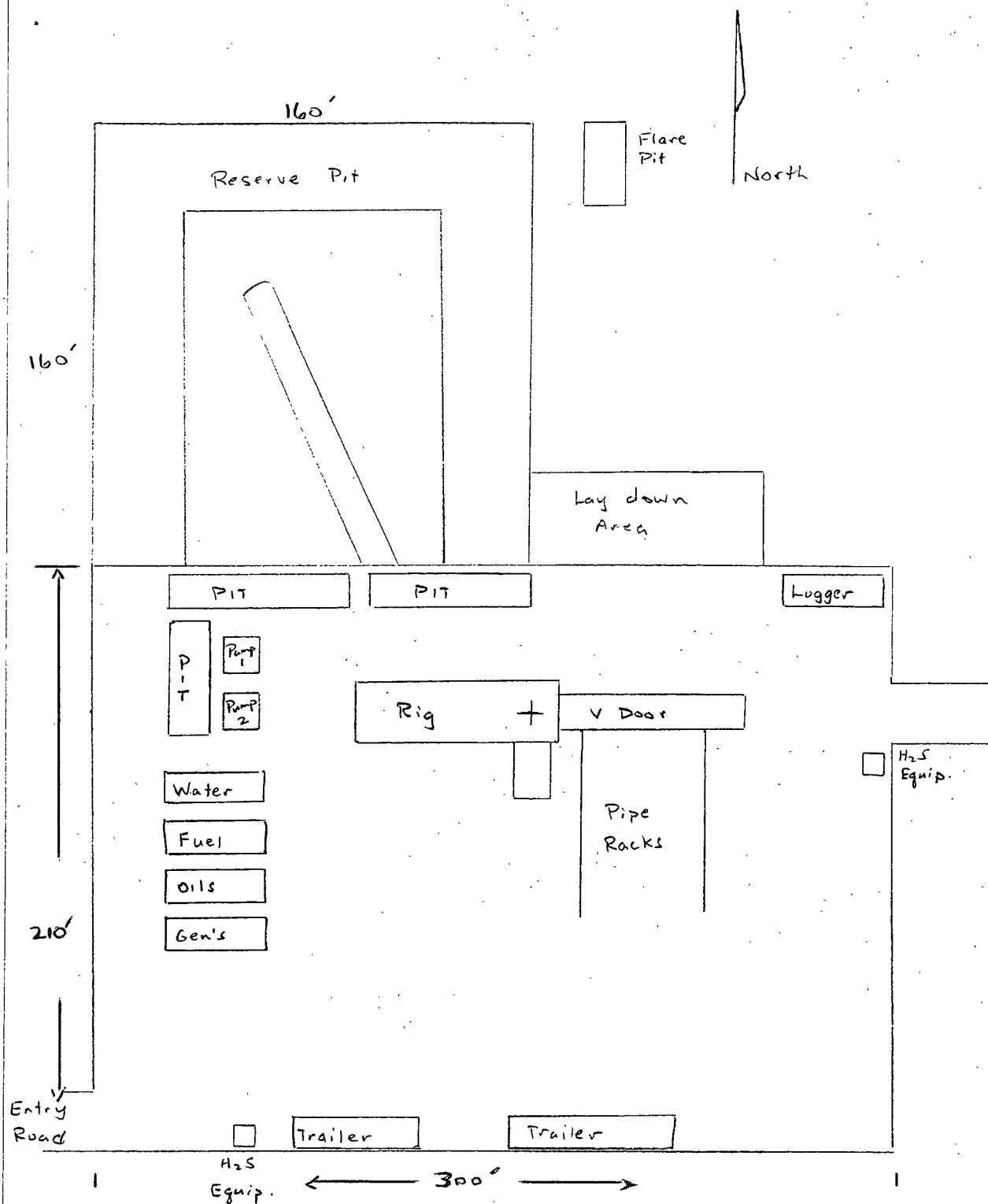
- Coring: None anticipated

11 Abnormal Pressure, Temperatures or Other Hazards: No lost circulation is anticipated. Maximum bottomhole pressure is estimated to be 4222 psig

12 Anticipated Starting Date: June 15, 2009.

22-141 50 SHEETS
22-142 100 SHEETS
22-143 150 SHEETS
22-144 200 SHEETS

CAUTION

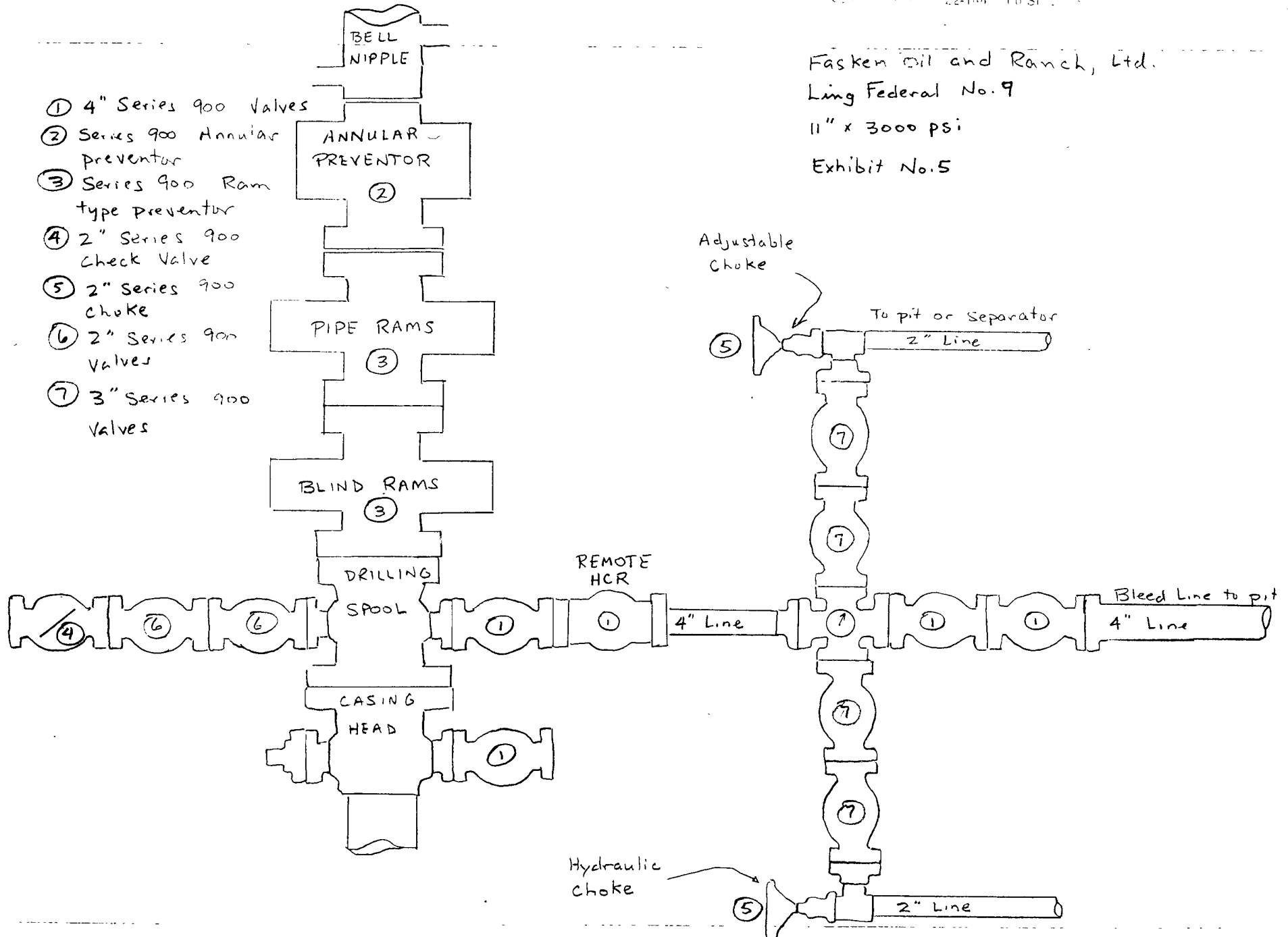


Fasken Oil and Ranch, Ltd.
Ling Federal No. 9
Lea County, NM
Exhibit No. 4

Fasken Oil and Ranch, Ltd.
Ling Federal No. 9

11" x 3000 psi

Exhibit No. 5



HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

EXHIBIT #3

Fasken Oil and Ranch, Ltd.
Ling Federal No. 9
790' FNL and 1980' FWL
Sec. 31, T19S, R34E
Lea County, New Mexico

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 (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques of first aid and rescue procedures.

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

1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II H₂S Safety Equipment and Systems.

NOTE: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetration the first zone containing or reasonable expected to contain H₂S.

1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.

Fasken Oil and Ranch, Ltd.

H2S Contingency Plan

Emergency Phone Numbers

Ling Federal No. 9

Fasken Oil and Ranch, Ltd.

432 687-1777

Key Personnel

Tommy Taylor, Drilling Manager

432 556-2228

Jimmy Davis, Operations Manager

432 557-5668

Deryl Briles, Drilling Foreman

432 556-4269

Hobbs, Lea County, New Mexico

Ambulance

911

State Police

911 or 575 392-5580

Sheriff's Office

911 or 575 396-3611

Fire Department

911 or 575 397-9308

Local Emergency Planning Committee

575 393-2870

New Mexico Oil Conservation Division

575 393-6161

Carlsbad, Eddy County, New Mexico

Ambulance

911

State Police

911 or 575 885-3138

Sheriff's Department

911 or 575 887-7551

Fire Department

911 or 575 885-3125

Local Emergency Planning Committee

575 887-7553

Bureau of Land Management

575 887-6544

New Mexico Oil Conservation Division (Artesia)

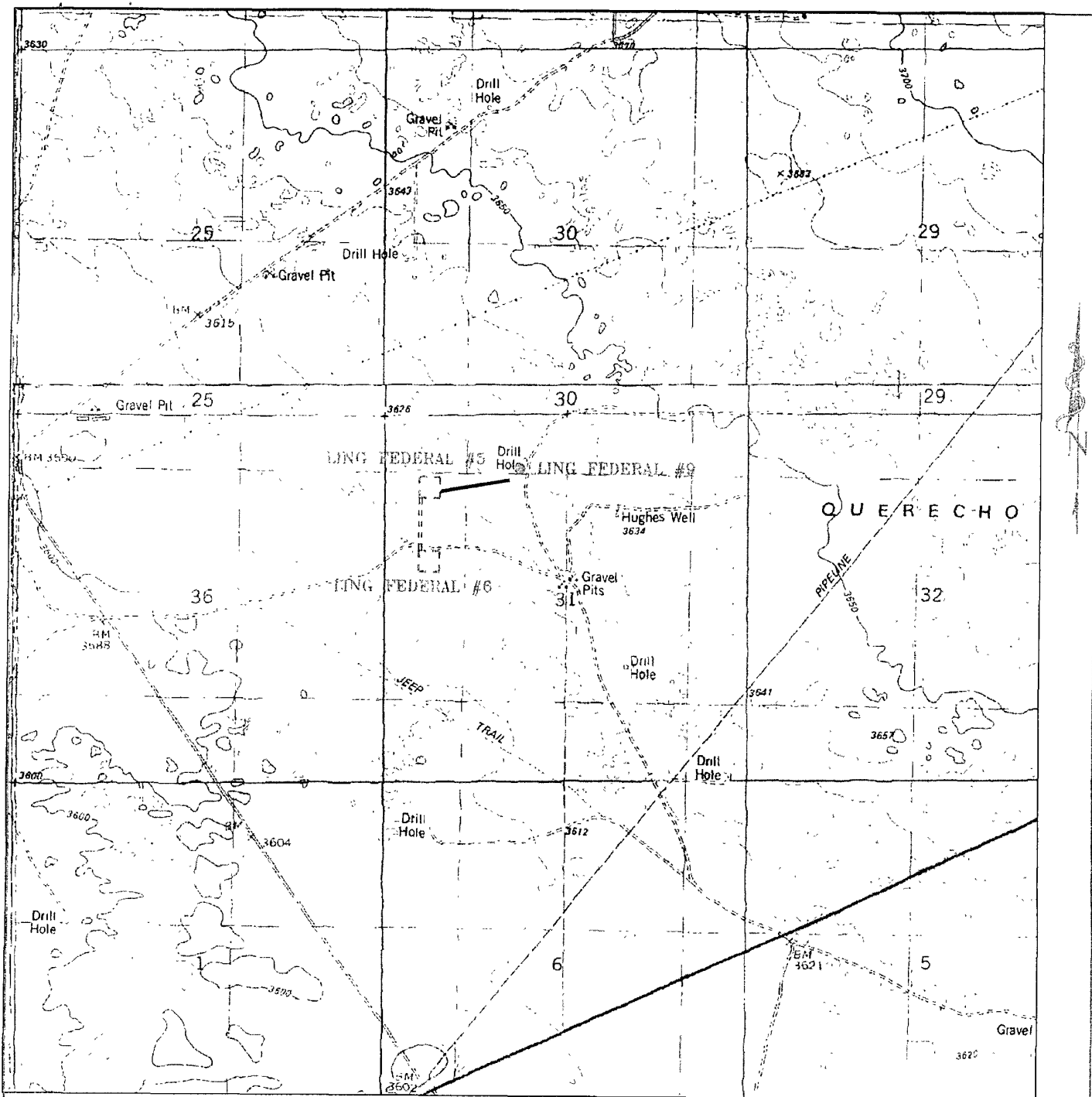
575 748-1283

Statewide and National Emergency Numbers

New Mexico Department of Homeland Security And Emergency Management	505 476-9600
New Mexico State Emergency Operations Center (24 Hour Number)	505 476-9635
National Emergency Response Center	800 424-8802

Other Numbers for Emergency Response

Boots & Coots IWC	800 256-9688 or 281 931-8884
Cudd Pressure Control	432 563-3356
MCH Care Star Flight Service (air ambulance)	432 640-4000
Aerocare (air ambulance)	806 725-1111



LING FEDERAL #9

Located 790' FNL and 1980' FWL

Section 31, Township 19 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.

Exhibit No. 1



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

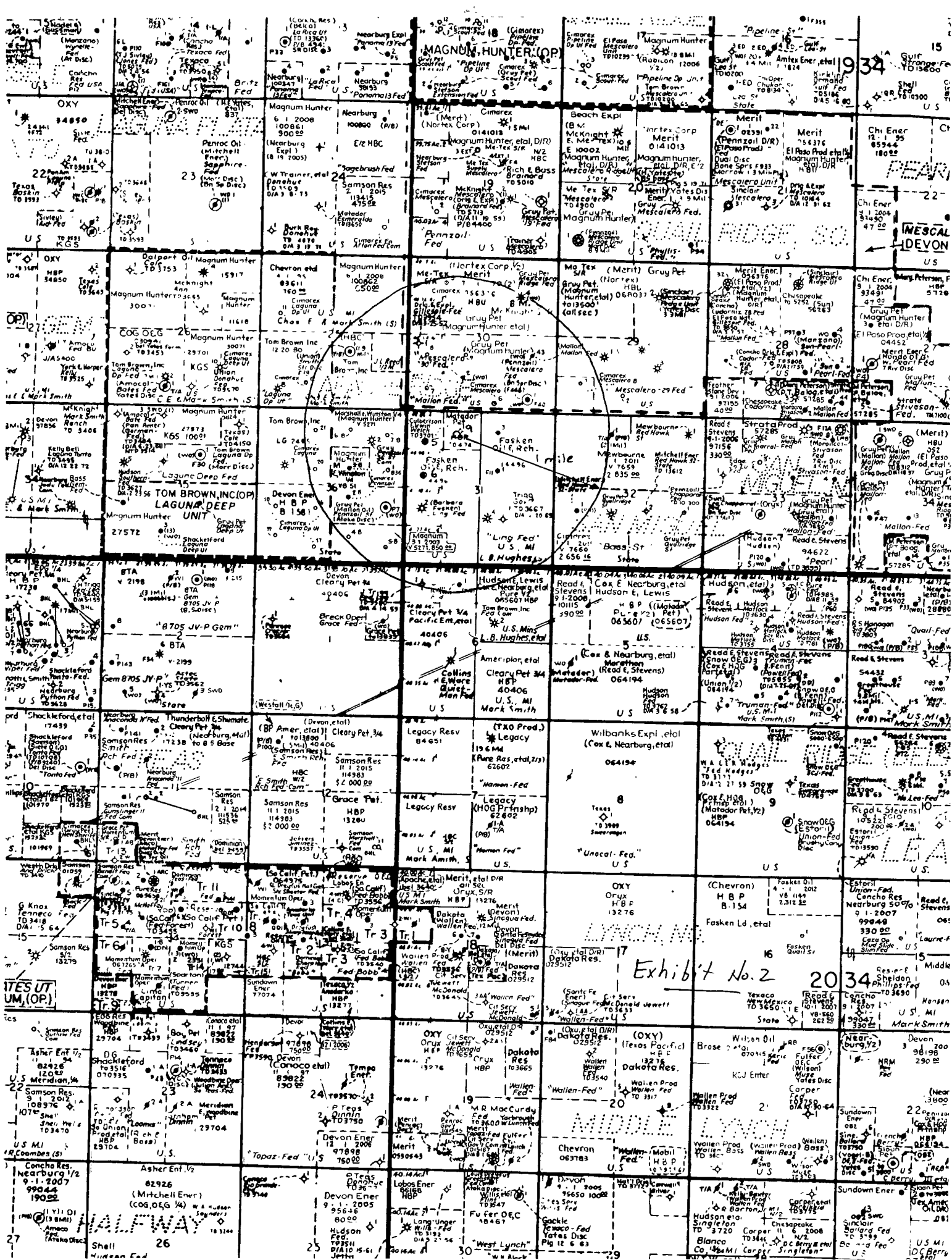
W.O. Number. JMS 21029

Survey Date: 01-14-2009

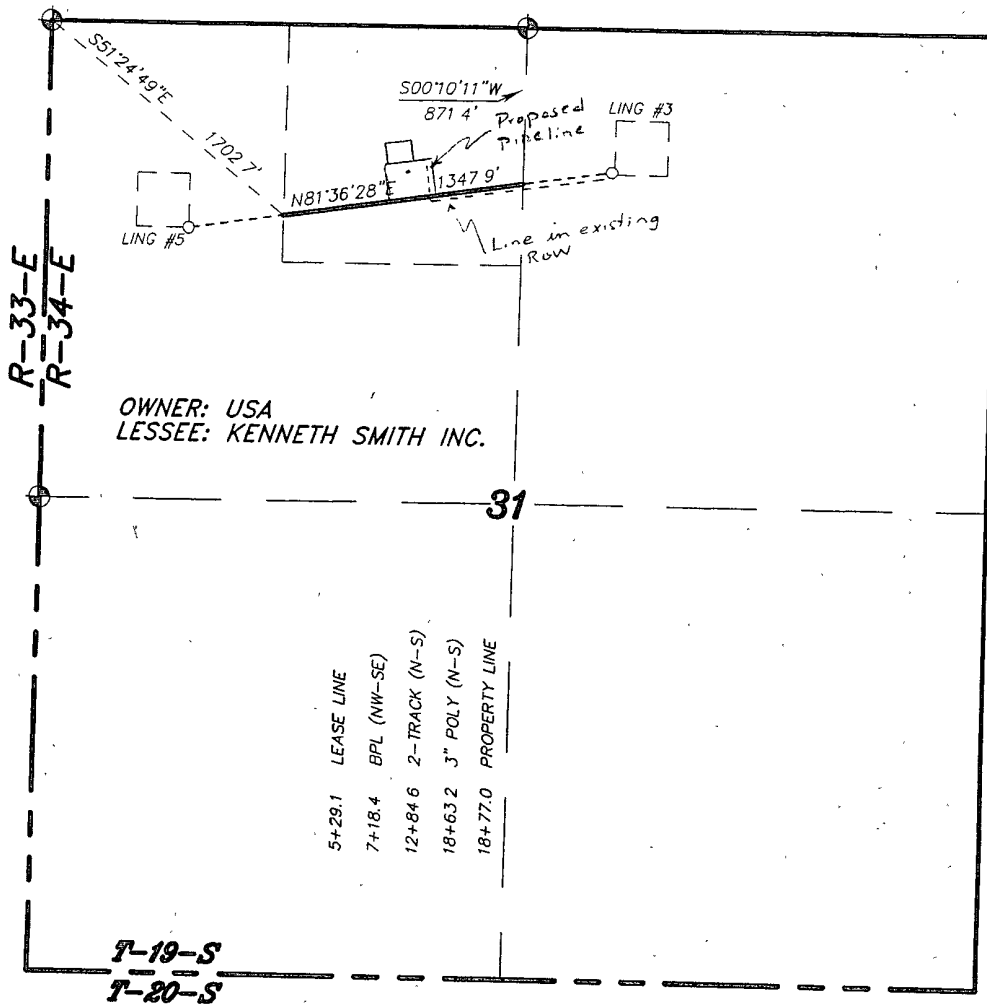
Scale 1" = 2000'

Date: 01-15-2009

**FASKEN OIL
AND RANCH,
LTD**



SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

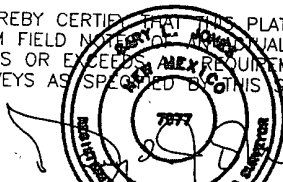


LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

SECTION 31 = 1347.9 FEET = 81.69 RODS = 0.26 MILES = 0.93 ACRES

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF A MECHANICAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.



GARY L. JONES
TEXAS P.L.S. No. 7977
No. 5074

1000 0 1000 2000 FEET

FASKEN OIL AND RANCH, Ltd.

REF PROPOSED PIPELINE TO THE LING #5

A PIPELINE CROSSING USA LAND IN
SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

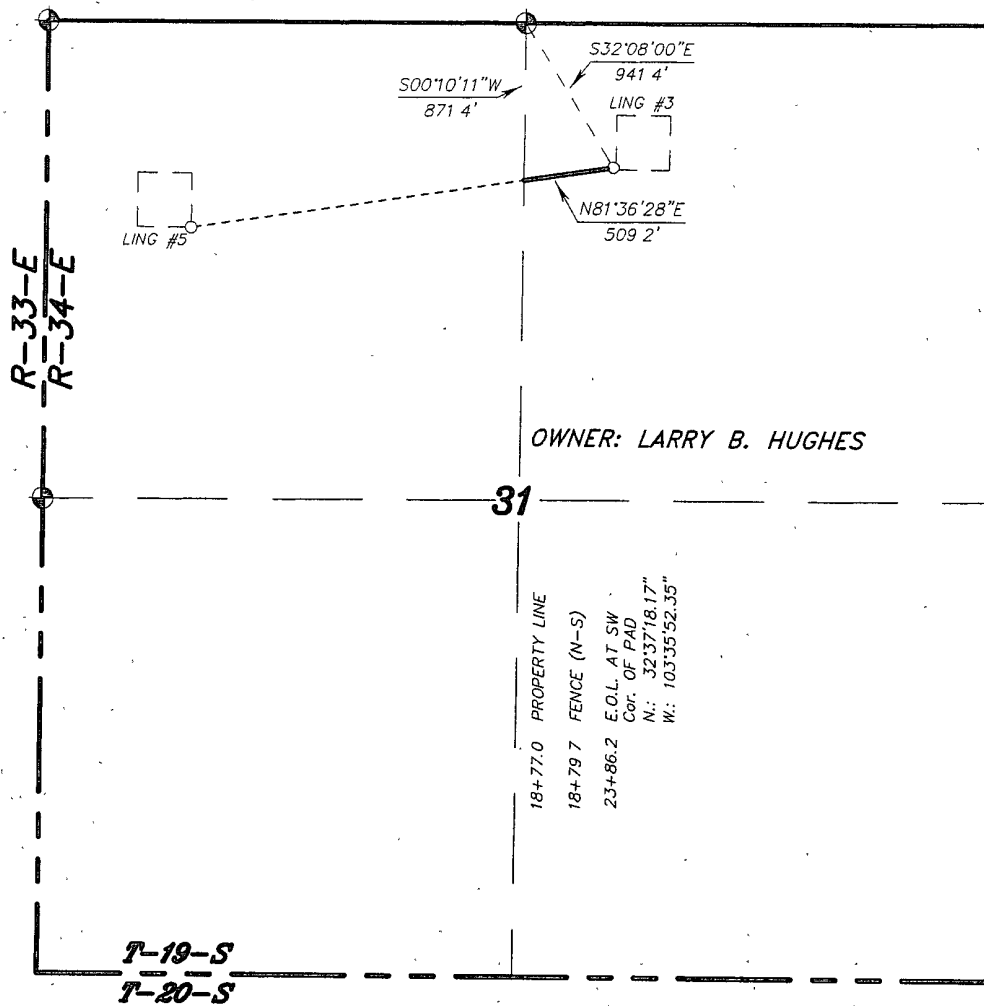
BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 19655 Drawn By: J. SMALL

Date: 05-20-2008 Disk: JMS 19655P

Survey Date: 05-15-2008 Sheet 2 of 3 Sheets

SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

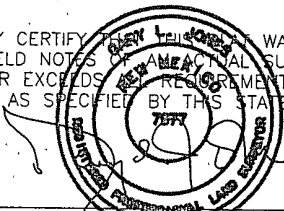


LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY.

BEGINNING AT A POINT ON THE WEST PROPERTY LINE WHICH LIES 5.00°10'11"W., 871.4 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 31; THENCE N.81°36'28"E., 509.2 FEET TO THE END OF THIS LINE WHICH LIES S.32°08'00"E., 941.4 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 31. SAID STRIP OF LAND BEING 509.2 FEET OR 30.86 RODS IN LENGTH.

I HEREBY CERTIFY THAT THIS SURVEY WAS PREPARED FROM FIELD NOTES OF A MECHANICAL SURVEY AND MEETS OR EXCEEDS THE REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.



GARY L. JONES N.M. P.L.S. No. 7977
TEXAS P.L.S. No. 5074

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

1000 0 1000 2000 FEET

FASKEN OIL AND RANCH, Ltd.

REF: PROPOSED PIPELINE TO THE LING #5

A PIPELINE CROSSING FEE LAND IN
SECTION 31, TOWNSHIP 19 SOUTH, RANGE 34 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

W O. Number. 19655 Drawn By: J. SMALL

Date. 05-20-2008 Disk. JMS 19655P

Survey Date: 05-15-2008 Sheet 3 of 3 Sheets

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Fasken Oil & Ranch, Ltd.
LEASE NO.:	NM-10474
WELL NAME & NO.:	Ling Federal #9
SURFACE HOLE FOOTAGE:	790' FNL & 1980' FWL
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 31, T. 19 S., R 34 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
 - Ground-level Abandoned Well Marker
- ☐ **Construction**
 - Notification
 - Topsoil
 - Reserve Pit
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Secretary's Potash – production casing cement
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
- ☐ **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)

1. 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.
2. 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 Carlsbad Field Office at (575) 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 160' X 160' 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.

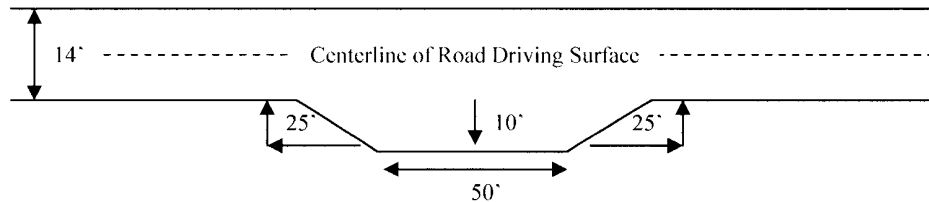
Ditching

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

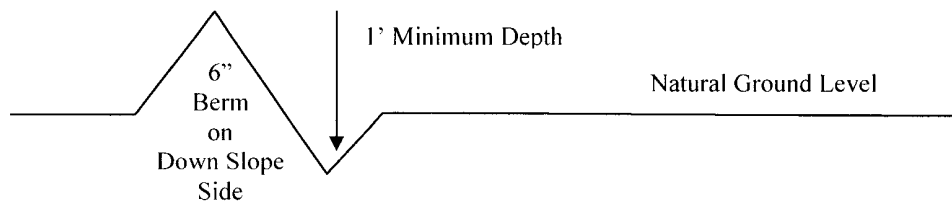


Drainage

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:

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

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

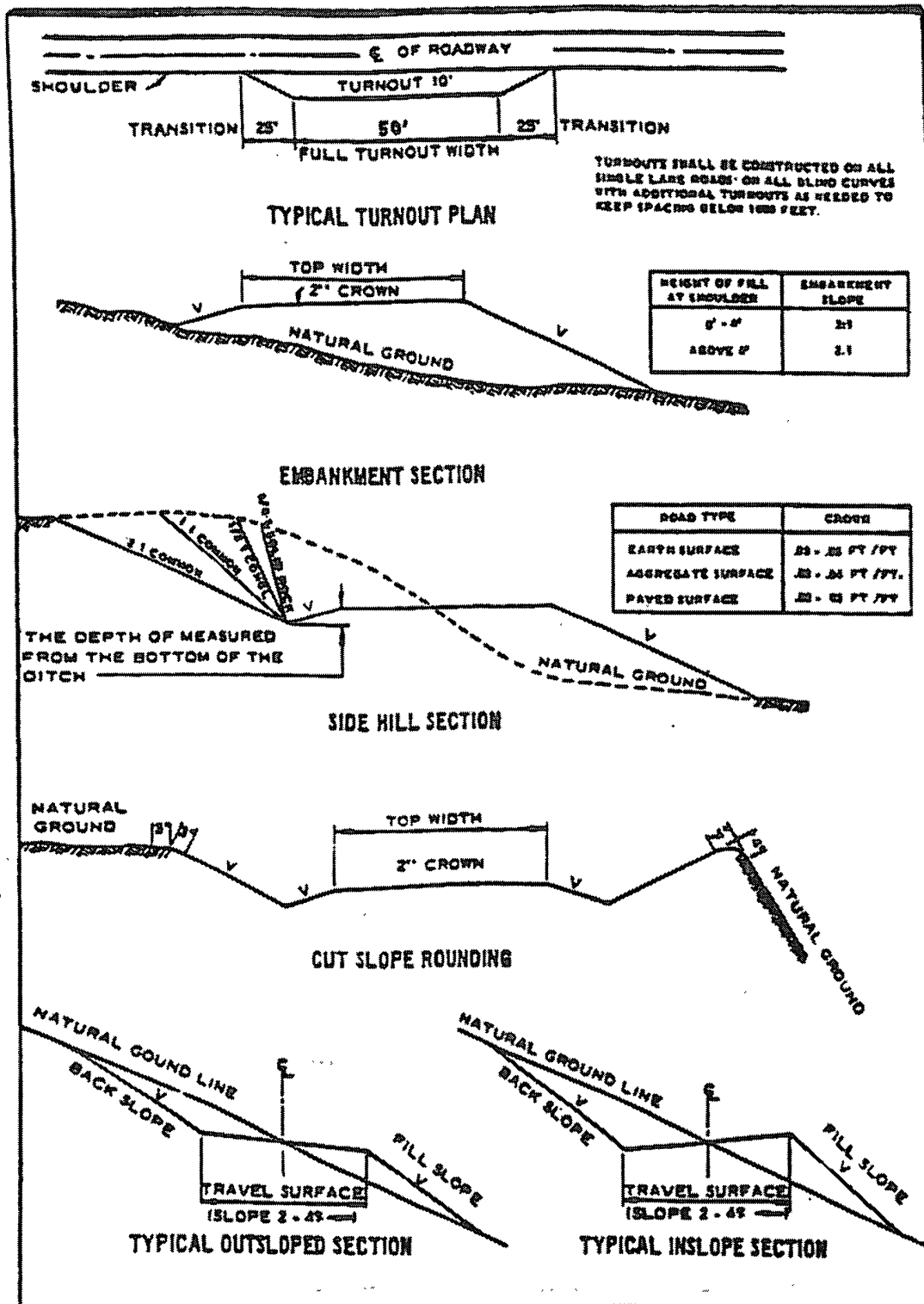
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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. **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. 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 lost circulation or water flows in the Capitan Reef.

1. The **13-3/8** inch surface casing shall be set **at approximately 1550 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the 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 a 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.

NOTE!

Operator to fill up every 25 joints while running 8-5/8" casing and pump through the floats to meet BLM minimum collapse safety factor.

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.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Proposed setting point of DV tool at 8400' results in an excess cement calculation for the second stage of a -32%. Additional cement will be required.

- 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 500 feet into previous casing string. Operator shall provide method of verification. Tieback of 500' required in Secretary's Potash. Additional cement required.**

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. 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. **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. DRILL STEM TEST

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

WWI 031309

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless

the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.
7. Blading of all vegetation will be allowed. Blading is defined as the complete removal of brush and ground vegetation. Clearing of brush species will be allowed. Clearing defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface. In areas where blading and/or clearing is allowed, maximum width of these operations will not exceed **35** feet.
8. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
9. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in row, piles, or berms, unless otherwise approved by the Authorized Officer. A berm will be left over the ditch line to allow for settling back to grade.
10. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
11. The holder will reseed. Seeding will be done according to the attached seeding requirements, using the following seed mix.
- | | |
|--|---|
| <input type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input checked="" type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
12. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.
13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder 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 will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

16. Special Stipulations:

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 2, for Sandy 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>
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sand love grass (<i>Eragrostis trichodes</i>)	1.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

*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.