

S

276

OCD-ARTESIA

Tr. # 206

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JAN 18 2008

OCD-ARTESIA

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

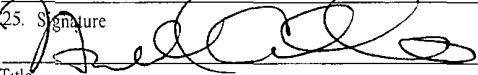
(RESUBMITTAL)

APPLICATION FOR PERMIT TO DRILL OR REENTER

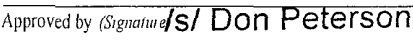
1a Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5 Lease Serial No. NMNM025528
1b Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6 If Indian, Allottee or Tribe Name
2 Name of Operator Devon Energy Production Company, LP		7 If Unit or CA Agreement, Name and No
3a Address 20 North Broadway Oklahoma City, Oklahoma 73102-8260	3b Phone No. (include area code) 405-552-8198	8 Lease Name and Well No. Eagle 33 O Federal 19
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface SWSE Lot O 330 FSL 2210 FEL At proposed prod. zone SWSE Lot O 330 FSL 2210 FEL		9 API Well No. 30-015-36051
10 Field and Pool, or Exploratory Red Lake; Glorieta-Yeso		11 Sec, T R M or Bk and Survey or Area Sec. 33 17S 27E, Unit O
12 County or Parish Eddy County		13 State NM
14 Distance in miles and direction from nearest town or post office* Approximately 7 miles southeast of Artesia, New Mexico	15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 330'	16 No of acres in lease 360 acres
17 Spacing Unit dedicated to this well 40 acres	18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 455'	19 Proposed Depth 4000 MD
20 BLM/BIA Bond No. on file CO-1104	21 Elevations (Show whether DF, KDB, RT, GL, etc) 3510' GL	22 Approximate date work will start* 01/01/2008
23 Estimated duration 45 days		24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form

- | | |
|---|--|
| 1 Well plat certified by a registered surveyor. | 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 shall be filed with the appropriate Forest Service Office) | 6 Such other site specific information and/or plans as may be required by the authorized officer |

25. Signature 	Name (Printed/Typed) Norvella Adams	Date 11/16/2007
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Title
Sr. Staff Engineering Technician

Approved by (Signature)  Don Peterson	Name (Printed/Typed) Don Peterson	Date JAN 11 2008
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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)

v-Box west
(Pike south)

Roswell Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1025 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code S1120	Pool Name Red Lake; Glanera-Yeso
Property Code 36954	Property Name EAGLE "33 O" FEDERAL		Well Number 19
GRID No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.		Elevation 3519'

Surface Location

UL or lot No. 0	Section 33	Township 17 S	Range 27 E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 2210	East/West line EAST	County EDDY
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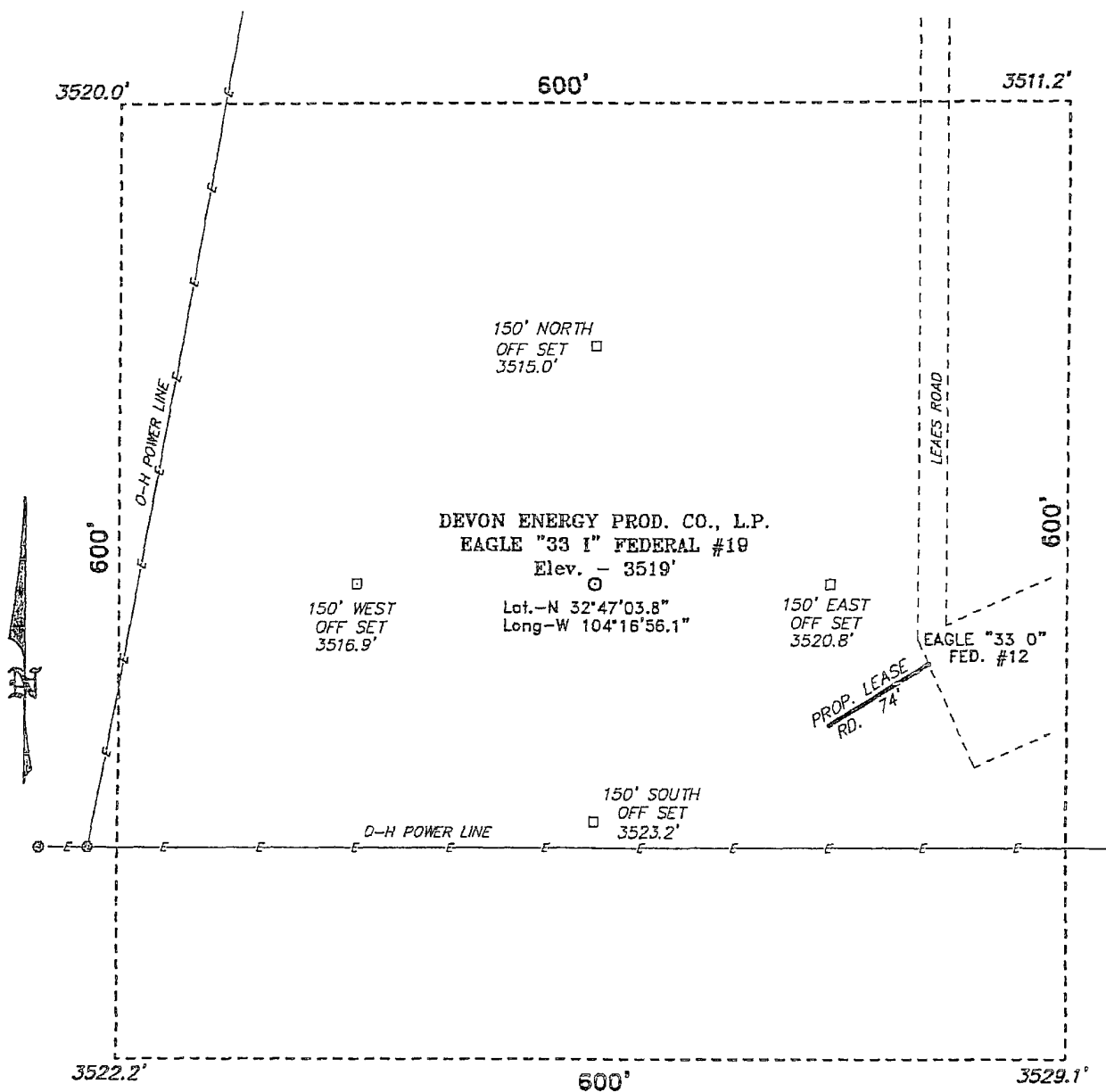
Bottom Hole Location If Different From Surface

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>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><u>Linda Guthrie</u> Signature Linda Guthrie Printed Name Regulatory Specialist Title 08/31/04 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JUNE 22, 2004 Date Surveyed Signature & Seal of Professional Surveyor W.O. No. 4515 Certificate No. Gary Jones 7977 JLP PROFESSIONAL LAND SURVEYS</p>
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SECTION 33, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF US HWY 82 AND CO. RD. 204, GO SOUTH ON 204 FOR APPROX. 0.25 MILE TO CO. RD. 225; THENCE SOUTHWESTERLY ON 225 FOR APPROX. 2.0 MILES; THENCE WESTERLY ON CO. RD. 227 FOR APPROX. 0.7 MILE TO LEASE ROAD; THENCE NORTH FOR APPROX. 0.4 MILE TO PROPOSED LEASE ROAD.

100 0 100 200 FEET
SCALE: 1" = 100'

DEVON ENERGY PROD. CO., L.P.

REF: EAGLE "33 O" FED. No. 19 / Well Pad Topo

THE EAGLE "33 O" FED. No. 19 LOCATED 330' FROM
THE SOUTH LINE AND 2210' FROM THE EAST LINE OF
SECTION 33, TOWNSHIP 17 SOUTH, RANGE 27 EAST,

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

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

W.O. Number: 4419

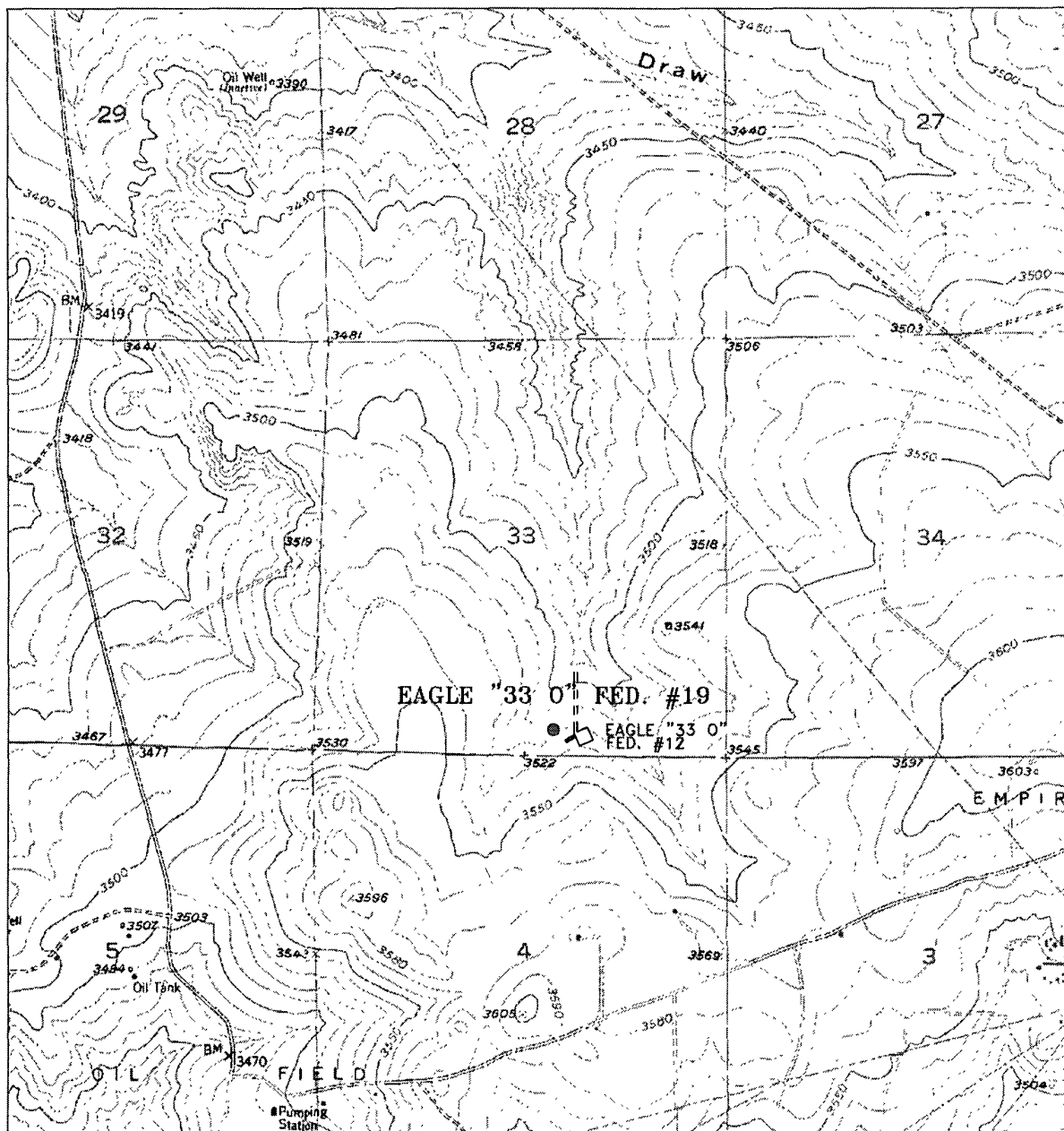
Drawn By: K. GOAD

Date: 07/06/04

Disk: JLP CD#1 - 4419A.DWG

Survey Date: 07-02-2004

Sheet 1 of 1 Sheets



EAGLE "33 0" FEDERAL #19
 Located at 330' FSL and 2210' FEL
 Section 33, Township 17 South, Range 27 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

W.O. Number: 4386AA - JLP #1

Survey Date: 07-06-2004

Scale: 1" = 2000'

Date: 07-06-2004

DEVON ENERGY
 PROD. CO., L.P.

Additional Operator Remarks:

Devon Energy Production Company, LP proposes to drill a San Andres, Glorieta Yeso well per the approved Master Drilling and Surface Use Plan for the Red Lake Field Area to 4000' TD for commercial quantities of oil and gas. If the well is deemed noncommercial, the well bore will be plugged and abandoned per Federal regulations.

Directions: From the junction of US Hwy 82 and Co. Rd. 204, go south on 204 for approx. 0.25 mile to Co. Rd. 225; then southwesterly on 225 for approx. 2.0 miles; then westerly on Co. Rd. 227 for approx. 0.7 mile to lease road; then north for approx. 0.4 mile to proposed lease road.

Please see attached MDSUP.

MASTER DRILLING PROGRAM
RED LAKE FIELD
Devon Energy Production Company, LP
Revised 8/02/07

1. Geologic Name of Surface Formation

a. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a. Queen	879'	Water
b. Grayburg	1330'	Oil
c. San Andres	1610'	Oil
d. Glorieta-Yeso	2960'	Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8 5/8" casing at approximately 1150' and circulating cement back to surface. A shallower setting depth may be required to prevent the surface casing from being set through the Premier Sand. The Grayburg and San Andres intervals will be isolated by setting 5 1/2" casing to total depth (4000'+/-) and circulating cement to surface.

Casing Program:

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
12 1/4"	0' - 1150'	8 5/8"	0' - 1150'	24#	ST&C	J-55
7 7/8"	0' - 4000'	5 1/2"	0' - 4000'	15.5#	ST&C	J-55

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
8 5/8"	2.61	2.57	8.84
5 1/2"	2.05	2.44	3.26

3. Cement Program:

a. 8 5/8"	Surface	Cement to surface with Lead; 475 sx (35:65) Poz Class C cement + 2% bwoc CaCl ₂ + 0.125 lbs/sx Cello Flake + 6% bwoc Bentonite; 12.80 ppg, 1.83 cf/sx, 9.76 gps. Tail with 250 sx Class C cement + 2% bwoc CaCl ₂ + 0.125 lbs/sx Cello Flake; 14.8 ppg, 1.35 cf/sx, 6.35 gps.
b. 5 1/2"	Production	Cement to surface with Lead; 180 sx (35:65) Poz Class C cement + 5% bwow NaCl + 0.125 lbs/sx Cello Flake + 6% bwoc Bentonite; 12.7 ppg, 1.94 cf/sx, 10.51 gps. Tail with 510 sx (60:40) Poz Class C cement + 5% bwow Sodium Chloride + 0.75% bwoc BA-

10 + 0.125 lbs/sx Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-1. 13.8 ppg, 1.37 cf/sx, 6.33 gps.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach to surface. All casing is new and API approved.

4. Pressure Control Equipment:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of either a single annular preventor or a double ram type preventor (2000 psi WP). The unit will be hydraulically operated and will be equipped with either a single annular preventor or a set of double rams (blind rams and 4 1/2" drill pipe ram). The BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. Prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be tested with the rig pump to 1000 psi.

The BOP system will be function tested and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold.

5. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 1150'	8.5 - 9.4	32-34	NC	Fresh Water
1150' - TD	10.0-10.2	28-32	NC	Fresh Water/Cut Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times.

6. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 8 5/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 8 5/8" shoe until total depth is reached.

7. Logging, Coring, and Testing Program:

- Drill stem tests will be based on geological sample shows.
- If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- The open hole electrical logging program will be:
 - Total Depth to Intermediate Casing
and Gamma Ray. Compensated Neutron - Z Density log with Gamma Ray and Caliper.
 - Total Depth to Surface
Compensated Neutron with Gamma Ray
 - No coring program is planned

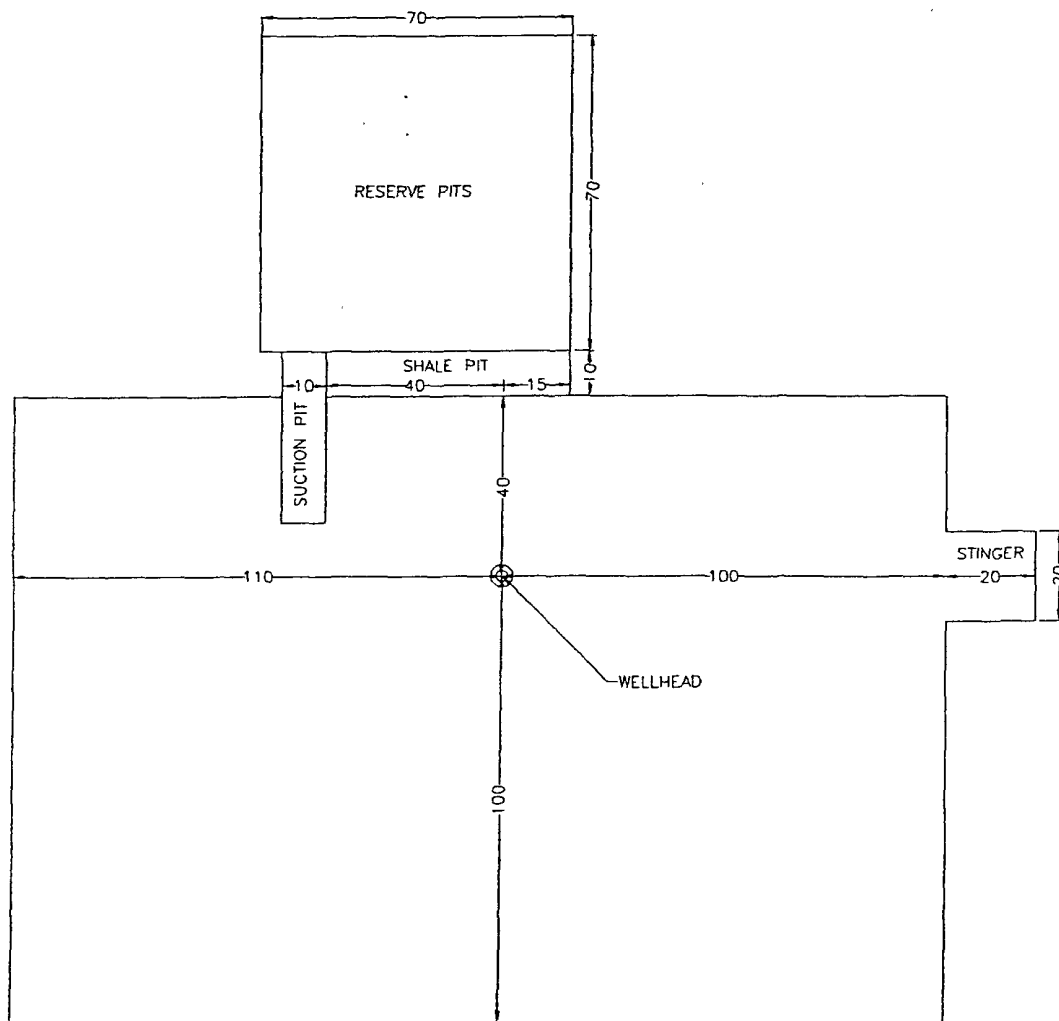
- iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

8. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 800 psi and Estimated BHT 90° F.

9. Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 10-15 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether the well will be connected to an existing or new production facility.



FILE:

devon
ENERGY CORPORATION

WEST RED LAKE AREA

EDDY COUNTY, NEW MEXICO

DRILLING PAD

EXHIBIT 5

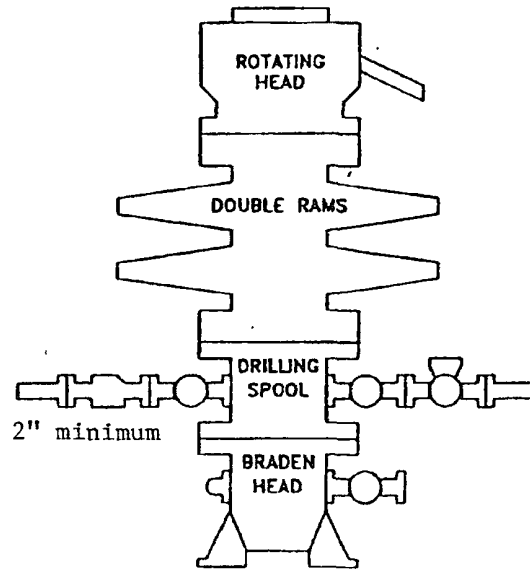
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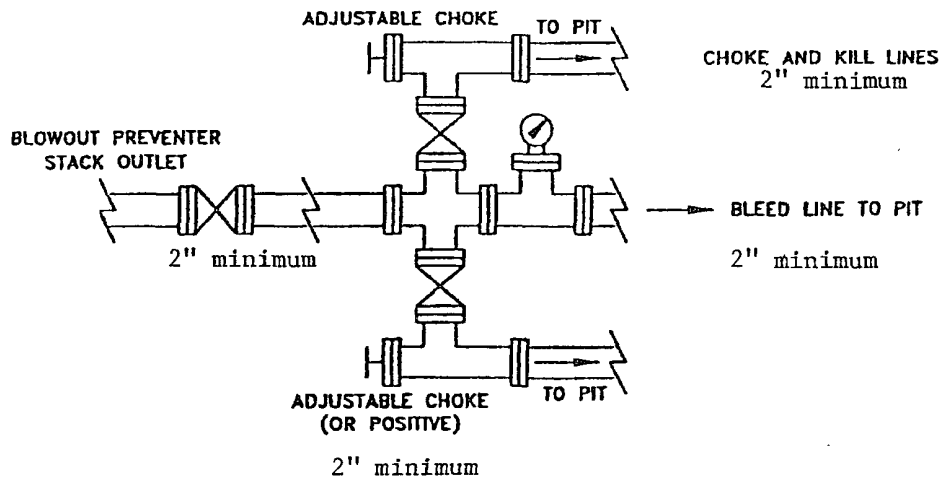
6/96

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTORS
West Red Lake Area
Eddy County, New Mexico

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventor and all associated fittings will be in operable condition and tested to 1000 psi with the rig pump.
4. All fittings will be flanged.
5. A full bore safety valve with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a Kelly cock attached to the Kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.
11. **BOP will consist of either a single annular preventor or a set of double rams as shown in Exhibit #1.**



CHOKE MANIFOLD REQUIREMENT (2000 psi WP)



devon

WEST RED LAKE AREA

EDDY COUNTY, NEW MEXICO

SCHEMATIC

BLOWOUT PREVENTOR

(2000 PSI WORKING WP)

C:\PROJECTS\EXPANDED

WRLBOP

CB

6/98

Well name:
Operator: **Devon Energy Corporation**
String type: **Surface**

West Red Lake Area

Location: **Eddy County, NM**

Design parameters:

Collapse

Mud weight: 9.630 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 77 °F
Temperature gradient: 0.20 °F/100ft
Minimum section length: 1,150 ft

Burst

Max anticipated surface pressure: 717 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 717 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 984 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 4,000 ft
Next mud weight: 9.630 ppg
Next setting BHP: 2,001 psi
Fracture mud wt: 12.000 ppg
Fracture depth: 1,150 ft
Injection pressure 717 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	1150	8.625	24.00	J-55	ST&C	1150	1150	7.972	55.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	575	1370	2.38	717	2950	4.12	24	244	10.33 J

Prepared **Jim Linville**
by: **Devon Energy**

Phone: (405) 228-4621
FAX: (405) 552-4621

Date: **March 12, 2001**
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 1150 ft, a mud weight of 9.63 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kernler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	West Red Lake Area
Operator:	Devon Energy Corporation
String type:	Production
Location:	Eddy County, NM

Design parameters:
Collapse

Mud weight: 9.630 ppg
Design is based on evacuated pipe.

Minimum design factors:
Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 95 °F
Temperature gradient: 0.50 °F/100ft
Minimum section length: 1,500 ft

Burst

Max anticipated surface pressure: 2,001 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 2,001 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.
Neutral point: 3,417 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	4000	5.5	15.50	J-55	LT&C	4000	4000	4.825	125.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2001	4040	2.02	2001	4810	2.40	53	217	4.10 J

Prepared by: Jim Linville
Devon Energy

Phone: (405) 228-4621
FAX: (405) 552-4621

Date: March 12, 2001
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 4000 ft, a mud weight of 9.63 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

DEVON ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of the H₂S safety equipment and of personal protective equipment to be utilized at the location such as H₂S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H₂S bearing formation, H₂S training will be required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H₂S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H₂S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

B. H₂S Safety Equipment And Systems

All H₂S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H₂S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

- (a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.
- (b) A choke manifold with a minimum of one remote choke.

2. H2S Detection And Monitoring Equipment

- (a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor, one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.
- (b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.

3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

- (a) Four (4) - five minute escape packs located at strategic points around the rig.
- (b) Two (2) - thirty minute rescue packs to be located at the designated briefing areas.

4. Visual Warning System

Visual warning system will consist of the following:

- (a) Two wind direction indicators.
- (b) One condition / warning sign which will be posted on the road - providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

5. Mud Program

- (a) The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H₂S bearing formations.

6. Metallurgy

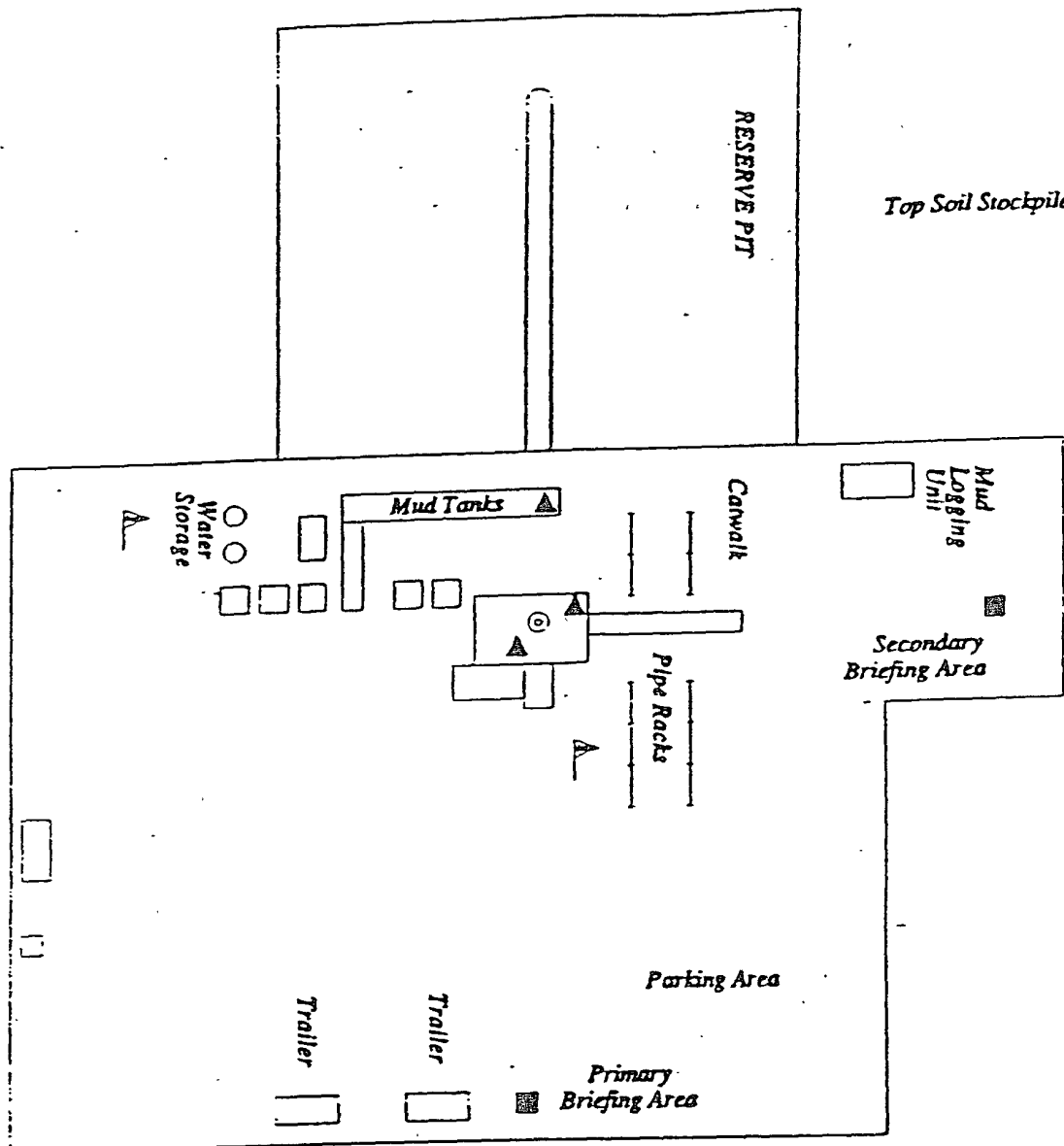
- (a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

7. Communication

- (a) Two way radio and cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

1. Attached is a diagram representing a typical location layout as well as the location of H₂S monitors, briefing areas, and wind direction indicators.



- ▲ H2S MONITORS WITH ALARMS AT THE BELL NIPPLE, SUBSTRUCTURE, AND SHALE SHAKER
- WIND DIRECTION INDICATORS
- SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT



devon

WEST RED LAKE AREA
DEWEE COUNTY, NEW MEXICO

H2S PLAN

Scale in Feet
25 0 25 50 75 100

MASTER SURFACE USE AND OPERATING PLAN
Red Lake Field

This plan will be submitted with Form 3160-3, Application for Permit to Drill. The purpose of this plan is to describe the location of the proposed wells, 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 operations. This plan will allow a complete appraisal to be made of the environmental effects associated with the proposed operations.

UNIT AREA: Leases in the following Sections, Townships and Ranges that are Operated by Devon Energy Production Company, LP.

Lease Numbers as follows but not limited to:

Section 2	NMNM 2029-634 NMNM-B-1483	NE4/NW4, NW4/NE4	T18S-R27E
Section 3	NMLC 065478-B NMNM 015605 NMLC 061783-B	All of Section 3 except S2/N24	T18S-R27E
Section 4	NMNM 033825 NMLC 055465-A NMNM 29278 NMNM 025530 NMLC 070937 NMLC 061783-A NMNM 7720	All of Section 4 except N2/NW4 and NW4/SW4	T18S-R27E
Section 25	NMNM 0558679	W2NW4	T17S-27E
Section 26	NMNM 0557370	E2 NE/4, E2SE/4, S/2 SW/4	T17S-R27E
	NMNM 0558679	SW4NW4, NW4SW4	
Section 27	NMLC 067849	N2, N2/S2	T17S-R27E
	NMNM 0557370	S/2S/2,	
Section 28	NMLC 067849	NE4/NE4	
Section 33	NMLC 026874-F	NW4, NW4SW4	T17S-R27E
	NMLC 026874-B	SE4SW4	
	NMLC 049648-B	NE4SW4	
	NMNM 025528	N2NE4, SW4NE4	
	NMNM 056122	SE4NE4	
	NMNM 033865	N2SE4	
	NMNM 025528	S2SE4	
Section 34*	NMLC 064050-A	E2, NW4, NE/4 SE/4	T17S-R27E
	NMLC 067849	W2 NW4, SW4	
	NMNM 0557370	NE/4, NW/4SE/4,	
Section 35	NMLC 064050-A	NW4SW4	T17S-R27E
	NMLC 067849	NW/4NW/4	
	NMLC 057798	SW4SW4, N/2SE4 NE/4SW/4, SE/4,SE/4	
	NMLC 028755-A	SE/4SW/4, SW/4SE/4	
	NMNM 0557370	SW/4NW/4	
	NMLC050158	E/2NE/4, E/2NW/4	

* NM 29270

SURFACE USE PLAN
RED LAKE FIELD
Devon Energy Production Company, LP
Revised 8/02/07

1. Existing Roads:

- a. The well site and elevation plat for the proposed well will be provided with the Form 3160-3 when proposed.
- b. All roads to the location are depicted on Exhibit 2 of each individual application. The existing roads will be illustrated and are adequate for travel during drilling and production operations. Upgrading of the roads prior to drilling will be done where necessary as determined during the onsite inspections.
- c. Directions to location will be provided with each application.

2. New or Reconstructed Access Roads:

- a. The well site layout, Form C-102 will show the existing and the proposed access roads.
- b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. Location of Existing Wells:

One Mile Radius Plat showing all existing and proposed wells within a one-mile radius of the proposed location will be provided with each application.

4. Location of Existing and/or Proposed Production Facilities:

- a. In the event the well is found productive, the collection facilities will be noted on the Application to Permit. Existing facilities are listed below.

MALCO BATTERY NE/SW OF SEC 6
CARTER COLLIER NE/SW OF SEC 5
WRL BATT AND INJ. ST. 1 NE/NW OF SEC 7
JOHNSTON BATTERY SW/NW SEC 7
JACKSON BATTERY SW/SW SEC 7
KAISER B 6 BATTERY NW/SE OF SEC 18
KAISER BATTERY NE/SE OF SEC 18
HAWK 8 BATTERY IN SW/SE OF SEC 8
WRL SATTELITE BATTERY NE/NE OF SEC 8
WRL INJ. ST. 2 NW/NE OF SEC 9
HAWK 9 BATTERY NW/SE OF SEC 9
HONDO BATTERY NE/SW OF SEC 4
WINDFOHR BATTERY SE/NE OF SEC 4
FALCON BATTERY NE/SW OF SEC 3
COMPTON 33 BATTERY SW/NE OF SEC 33
EAGLE BATTERY SW/NE OF SEC 34
LOGAN ST. 2 BATTERY NW/NE OF SEC 2
LOGAN 35 BATTERY SE/SW OF SEC 35
EAGLE 27 BATTERY NW/SE OF SEC 27
ASAU SE/SE SEC 13



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

IN REPLY REFER TO:

JUN 05 2003

Devon Energy Production Company, L.P.
Attn. Ms Karen Cottom
20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102-8260

Re: Red Lake Field Area
Master Drilling and Surface Use Plan
Eddy County, New Mexico

The master drilling and surface use plan, dated May 6, 2003, for the Red Lake Field Area in Townships 17 and 18 South, Range 27 East, Eddy County, New Mexico, is now approved. Several corrections have been made to the attached list describing the field area. An approved copy is attached for your records.

Please note that the surface casing setting depth may change in individual APD (Form 3160-4) submittals because the depth of the expected fresh water varies across this area.

If you have any questions, please contact Alexis C. Swoboda, P.E. at 505-627-0228.

Sincerely,

Larry D. Bray
Assistant Field Manager
Lands and Minerals

V. SPECIAL REQUIREMENT(S)

Cave and Karst

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. Use depth to the deepest expected fresh water as listed in the geologist report.

Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a void (bit drops) of four feet or more and circulation losses greater than 75 percent occur simultaneously while drilling in any cave-bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

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

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. It has been reported in this township measuring 224-760 ppm in the gas stream and 4-20 ppm in STVs.**
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.

B. CASING

1. The 8-5/8 inch surface casing shall be set at **approximately 1150** feet 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 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). **Please provide WOC times to inspector for cement slurries.**
 - 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 action will be done prior to drilling out that string.

High cave/karst.

Possible lost circulation in the Grayburg and San Andres.

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

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Cement required to surface due to high cave/karst. Please provide WOC times to inspector for cement slurries.**

3. 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. **No variance is given on BOP tests when two casing strings are used.**

D. DRILL STEM TEST

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

Engineer on call phone (after hours): Carlsbad: (575) 706-2779
WWI 011008



RECEIVED
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OCC-ARTESIA

**Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260**

Hydrogen Sulfide (H₂S) Contingency Plan

For

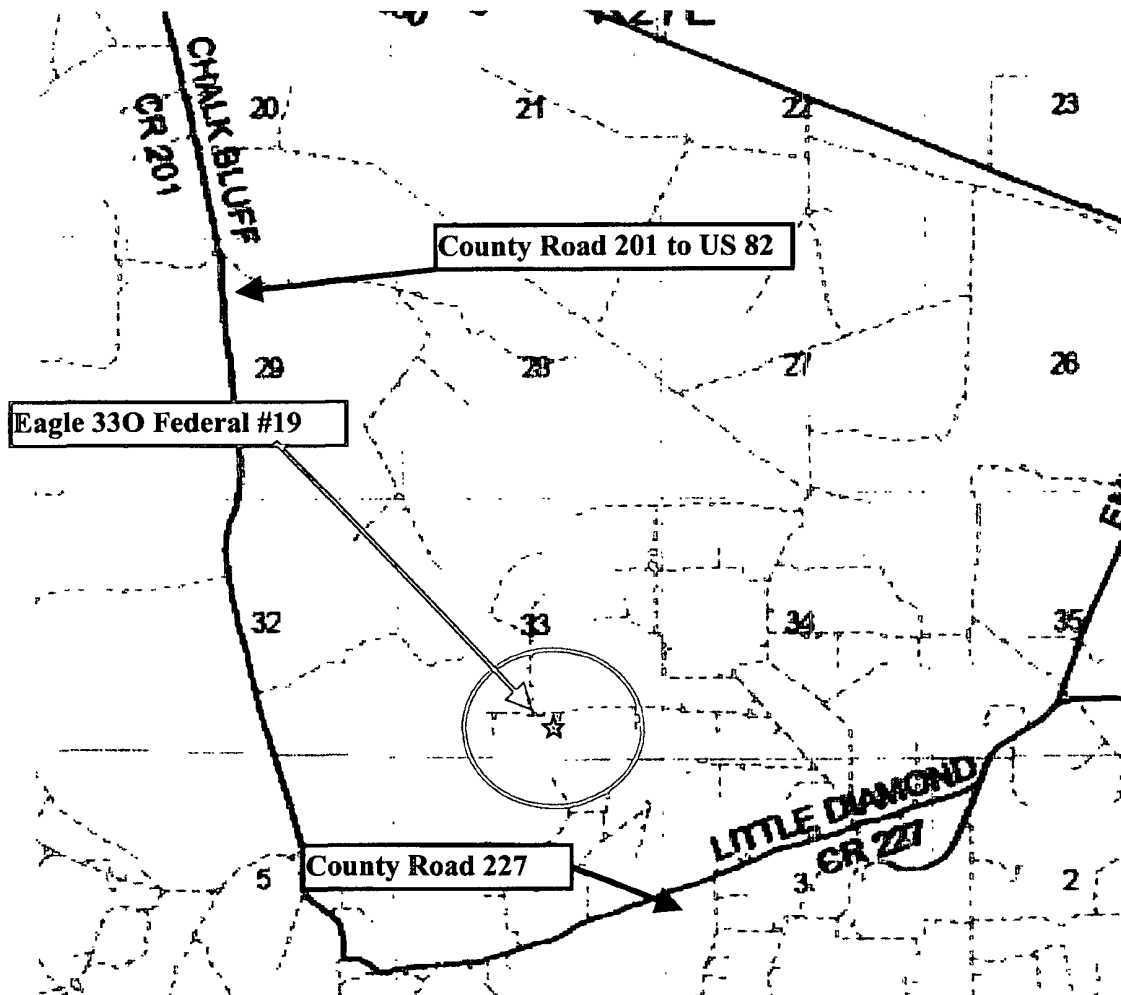
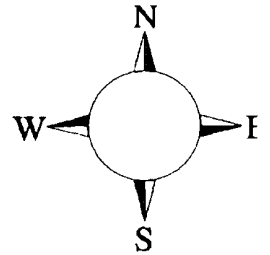
Eagle 330 Federal # 19

**330' FSL & 2210' FEL,
Sec-33, T-17S R-27E**

Eddy County NM

Eagle 330 Federal # 19

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H₂S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated West lease road to County road 201. Crews should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE There are no homes or buildings in or near the ROE.

Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Devon Energy Corp. Company Call List

<u>Artesia (505)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
Foreman – BJ Cathey.....	390-5893	748-0176	887-6026
Asst. Foreman – Bobby Jones.....	748-7447	748-0176	746-3194
Cecil Thurmond	748-7180	748-0171	887-1479
Mike Myers	(505) 513-0782	(505) 748-0187 ...	(505) 395-3020
Engineer – Tom Pepper	(405) 203-2242	(405) 552-4513 ...	(405) 728-8641

Agency Call List

Eddy County (505)

Artesia

State Police.....	746-2703
City Police.....	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	746-2122
NMOCD.....	748-1283

Carlsbad

State Police.....	885-3137
City Police.....	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee).....	887-3798
US Bureau of Land Management.....	887-6544

New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington, DC)	...(800) 424-8802

Other

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
Halliburton	(505) 746-2757
B. J. Services.....	(505) 746-3569

Flight For Life -4000 24th St, Lubbock, TX	(806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX	(806) 747-8923
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM	(505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM	(505) 842-4949

Prepared in conjunction with
Wade Rohloff of;

