

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form approved
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a TYPE OF WORK: ☒ DRILL ☐ REENTER

b. TYPE OF WELL: ☒ OIL WELL ☐ GAS WELL ☐ Other ☐ SINGLE ZONE ☐ MULTIPLE ZONE

2. NAME OF OPERATOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

3a. ADDRESS AND TELEPHONE NO.

20 NORTH BROADWAY, SUITE 1500, OKC, OK 73102

3b. TELEPHONE (Include area code).

(405) 235-3611

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface 2240' FSL & 2240' FEL,

At top proposed prod. zone 2240' FSL & 2240' FEL,

5. LEASE DESIGNATION AND SERIAL NO.

NMNM81616

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

H B 10 FEDERAL #2

9. API WELL NO.

30-015-33098

10. FIELD AND POOL, OR WILDCAT

PIERCE CROSSING; BONE SPRINGS East

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SEC 10 T24S R29E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

6 MILES EAST OF MALAGA NEW MEXICO

12. COUNTY OR PARISH

EDDY

13. STATE

NM

15. DISTANCE FROM PROPOSED
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

2240'

16. NO. OF ACRES IN LEASE

560.00

17. Spacing Unit dedicated to this well

40

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

8500

20. BLM/BIA Bond No. on file

CO1104

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

2972' GR

22. APPROX. DATE WORK WILL START*

SEPT 18, 2003

23. Estimated duration

45 DAYS

24. Attachments

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

- 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.

Drilling Program

Surface Use and Operating Plan

Exhibit #1 = Blowout Prevention Equipment

Exhibit #2 = Location and Elevation Plat

Exhibit #3 = Road Map and Topo Map

Exhibit #4 = Wells Within 1 Mile Radius

Exhibit #5 = Production Facilities Plat

Exhibit #6 = Rotary Rig Layout

Exhibit #7 = Casing Design


H₂S Operating Plan

Archeological clearance report

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

Bond Coverage: Nationwide
BLM Bond #: CO-1104

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

25. Signature 	Name (Printed/Typed) KAREN COTTOM	Date 8/14/03
Title OPERATIONS TECHNICIAN		
Approved by (signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 12 NOV 2003
Title ACTING FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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

*(Instructions on reverse)

DRILLING PROGRAM

Attached to Form 3160-3

Devon Energy Production Company, LP

H. B. 10 FEDERAL #2

(J) 2240' FSL & 2240' FEL, Section 10, T-24-S, R-29-E

Eddy County, New Mexico

1. Geologic Name of Surface Formation

Quaternary Aeolian Deposits

2. Estimated Tops of Important Geologic Markers

Lamar	3050'
Bell Canyon	3100'
Brushy Canyon	5500'
Bone Spring	6800'
First Bone Spring	7100'
Total Depth	8500'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

The estimated depths at which water, oil and gas will be encountered are as follows.

Lamar	3050'	
Bell Canyon	3100'	Oil
Brush Canyon	5500'	Oil
Bone Spring	6800'	
First Bone Spring	7100'	Oil

4. Casing Program

Hole Size	Interval	OD Csg	Weight	Collar	Grade
17 1/2"	0-350'	13 3/8"	48#	ST&C	H-40
11"	0-3100'	8 5/8"	32#	LT&C	J-55
7 7/8"	0-8500'	5 1/2"	17#	LT&C	J-55

5. CASING CEMENTING & SETTING DEPTH:

13 3/8"	Surface	Set 350' of 13 3/8", 48#, H-40, ST&C casing. Cement with 380 sacks Class C Neat + 2% CaCl ₂ Circulate cement to surface
8 5/8"	Intermediate	Set 3100' of 8 5/8", 32#, J-55 LT&C casing. Cement with 1000 sx Class C + additives. Circulate cement to surface.
5 1/2"	Production	Set 8500' of 5 1/2", 17#, J-55, LT&C casing. Cement with 1120 sx Class H + additives. Estimated top of cement @ 5600'

6. PRESSURE CONTROL EQUIPMENT: Exhibit "E". A Blow-out Preventer (no less than 900 Series 3000 PSI working pressure) consisting of double ram type preventer with bag type preventer. Units will be hydraulically operated. Exhibit E-1 Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be tested as well as choke manifold. BOP will be worked at least once each day while drilling & blind ram will be worked on trips when no drill pipe is in hole. Full opening stabbing valve and upper Kelly cock will be utilized. Anticipated BHP 3000 PSI and 125° BHT. Note: A 2000# drilling head will be installed on the 13 3/8" & tested to 1215# (70% burst rating) with the rig pump.

7. PROPOSED MUD CIRCULATION SYSTEM:

DEPTH	MUD. WT.	MUD VISC.	FLUID LOSS	TYPE MUD
0' – 350'	8.4- 8.8	29-36	NC	Fresh water spud mud use paper for seepage.
350' – 3100'	10.5 – 11.0	29-32	NC	Brine water use paper for seepage control and lim for pH control.
3100' – 7500'	9.3 – 10	29-34	NC	Cut Brine Use paper for seepage control.
7500' – 8500'	9.3 – 10	34 –38	10 cc's or less	Cut Brine use Drispac starch & soda ash.

Sufficient mud materials to maintain mud properties, meet lost circulation and weight increase requirement will be kept at wellsite at all times. In order to run casing and log well viscosity may have to be raised and water loss may have to be lowered.

8. TESTING, LOGGING AND CORING PROGRAM:

- 1) CNL-FDC, Gamma Ray, Caliper from TD to base of intermediate casing.
- 2) AIT-Dual Laterolog – Micro SFL from TD to base of intermediate casing.
- 3) Gamma Ray, Neutron, Caliper to surface
- 4) Mud Logger on from 2800' to TD (Two man unit)
- 5) Side wall cores taken between 3100' – 6700' in Delaware where shows occur.

9. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. No Hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No lost circulation is expected to occur. Estimated BHP 3000 psi, estimated BHT 125°

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM approval of APD. Anticipated spud date is September 15, 2003. Drilling is expected to take 18- 24 days. If production casing is run and additional 30 days will be required to complete and construct surface facilities.

11. OTHER FACETS OF OPERATIONS:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Bone Spring pay will be perforated and stimulated. The well will be swab tested and potentialized as an oil well.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3

H. B. 10 FEDERAL NO. 2

(J) 2240' FSL & 2240' FEL, Section 10, T-24-S, R-29-E

Eddy County, New Mexico

1. Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit C is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. There will be approximately 1350' of new road construction to BLM specifications.
 - A. Exhibit A shows the proposed well site as staked
 - B. From Malaga, NM go east on CR 720 .6 mile. Turn left on CR 745 and go 3 miles. Turn right and follow main road 3.2 miles to Ore Ida 14 #1. Go east .15 miles, turn left and go .25 miles, turn left and go .25 miles to HB 11-2, continue SW .2 miles to HB 10A #8 continue NW .3 miles to location.
 - C. The access road will be crowned and ditched to a 14' wide travel surface with a 30' right-of-way. This Right of Way will be used for flow lines and power lines.
 - D. Gradient on all roads will be less than 1.00%
 - E. There will be turnouts as needed.
 - F. If needed, road will be surfaced with a minimum of 6" of compacted caliche. This material will be obtained from a local source.
 - G. Earthwork will be as required by field conditions.
 - H. Culverts in the access road will not be used.
3. LOCATION AND TYPE OF WATER SUPPLY

Water will be purchased locally from a private source and trucked over the access roads or piped in flexible lines laid on top of the ground.
4. SOURCES OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access route as shown on Exhibit "A".

METHODS FOR HANDLING WASTE DISPOSAL

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Trash, waste paper, and garbage will either be contained in a fenced trash trailer or in a trash pit, fenced with mesh wire to prevent wind-scattering and will be buried at least 36" deep within a reasonable period of time.
- C. Salts remaining after completion of the well will be picked up by the supplier, including broken sacks.
- D. Sewage from trailer houses will drain into holes with minimum depth of 10'. These holes will be covered during drilling and backfilled upon completion.

Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time they will be transported by tank truck to a state approved disposal site.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

a. ANCILLARY FACILITIES

No camps or airstrips will be constructed

6. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities
- C. Mud pits in the active circulating system will be steel pits and the reserve pits is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2' over the reserve pits dikes where the liner will be anchored down.

- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations are ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded, as close as possible, to BLM requirements.

7. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly. The pit area will then be leveled and contoured to conform, as closely as possible to the original and surrounding area. Drainage systems, if any, will be reshaped, as close as possible, to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match, as close as possible, the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas, which are not required for production facilities.

8. OTHER INFORMATION:

- A. Topography: The proposed well site and access road consists of sand dunes with native grasses and catclaw.
- B. The surface is owned by the U. S. Department of the Interior (Bureau of Land Management).
- C. An archaeological survey will be conducted for the location and road and will be submitted to the BLM office in Carlsbad, New Mexico
- D. Residences and Other Structures: None in the immediate area, except oil production facilities.
- E. Land Use: Cattle grazing

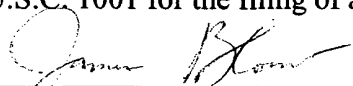
F. Surface ownership: BLM, Carlsbad, N.M.

OPERATORS REPRESENTATIVE:

Devon Energy Production Company, LP
20 North Broadway, Ste 1500
Oklahoma City, OK 73102

James Blount Operations Engineering Advisor
Work Phone (405)228-4301
Home Phone (405)348-0102
Cellular (405)834-9207

9. CERTIFICATION: - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statement made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon SFS Operating, Inc. it's contractors/subcontractors is in the conformity with tthis plan and the terms and condition under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: 
James Blount
DATE: 8-19-03
Title: Operations Engineering Advisor

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: **Devon Energy Production Company, LP**
Street or Box: **20 North Broadway, Suite 1500**
City, State: **Oklahoma City, Oklahoma**
Zip Code: **73102-8260**

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.: **NMNM81616**
Legal Description of Land: **40 acres 10-T24S-R29E**
Formation(s): **Pierce Crossing; Bone Spring**
Bond Coverage: **Nationwide**
BLM Bond File No.: **CO1104**

Authorized Signature:


Karen Cottom

Title: **Operations Engineering Advisor**

Date:

DISTRICT I
P.O. Box 1080, Hobbs, NM 88241-1080

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 50371	Pool Name PIERCE CROSSING: BONE SPRING
Property Code	Property Name HB 10 FEDERAL	Well Number 2
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	Elevation 2972'

Surface Location

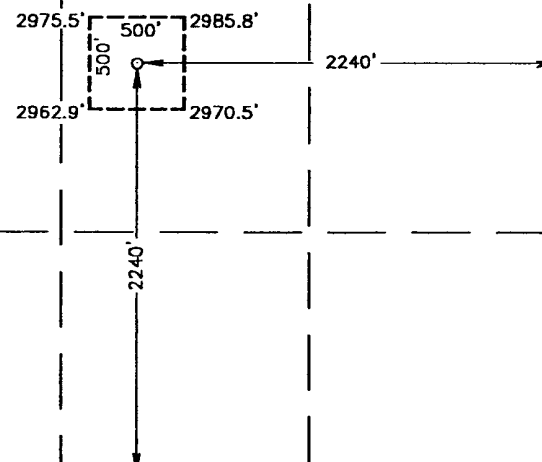
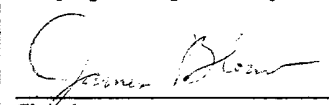
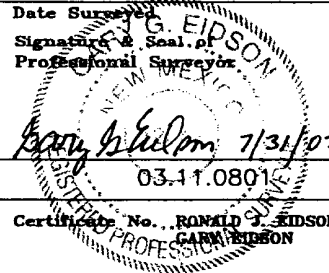
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	24-S	29-E		2240'	SOUTH	2240'	EAST	EDDY

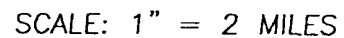
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

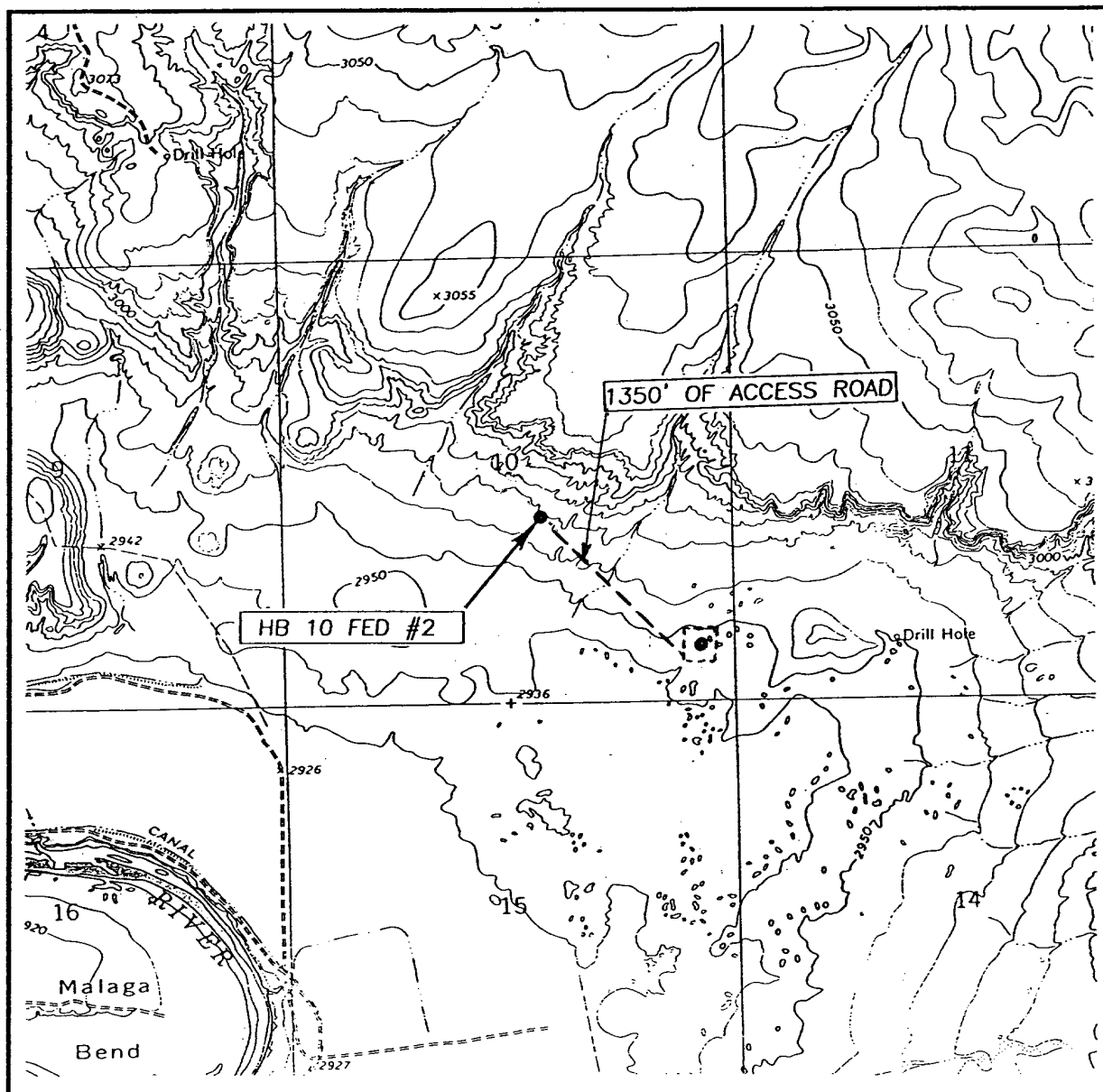
<p>GEODETIC COORDINATES NAD 27 NME Y= 447904.2 N X= 612187.1 E LAT. 32°13'51.19"N LONG. 103°58'13.88"W</p>		<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p> Signature</p> <p>James Blount Printed Name</p> <p>Operations Engineering Ad Title</p> <p>8/13/03 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>July 28, 2003 Date Surveyed</p> <p>AWB Signature & Seal of Professional Surveyor</p> <p> Certificate No. 03.11.08015 RONALD J. EIDSON 3239 CARM EIDSON 12641</p>



LEASE HB 10 FEDERAL

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
PIERCE CANYON, N.M.

SEC. 10 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2240' FSL & 2240' FEL

ELEVATION 2972'

OPERATOR DEVON ENERGY PROD, CO. L.P.

LEASE HB 10 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.

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

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

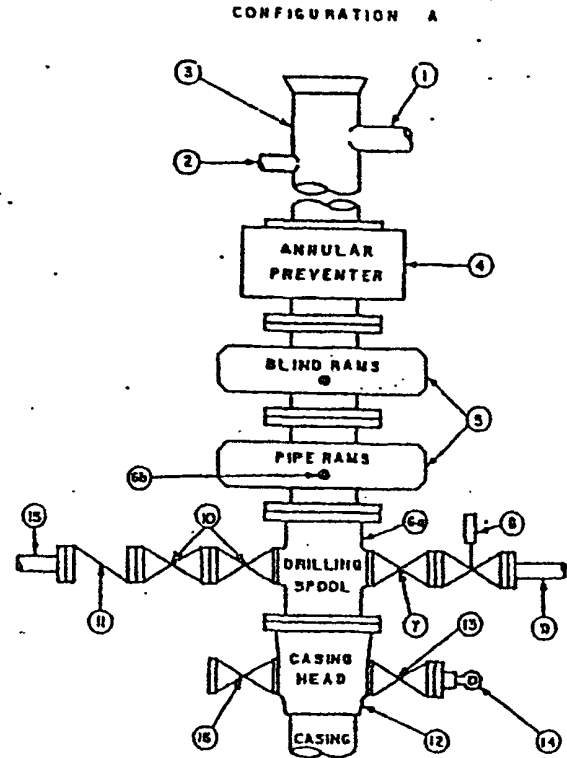
EXHIBIT # 1

STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL

16	Flanged valve	1-13/16"	
----	---------------	----------	--



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

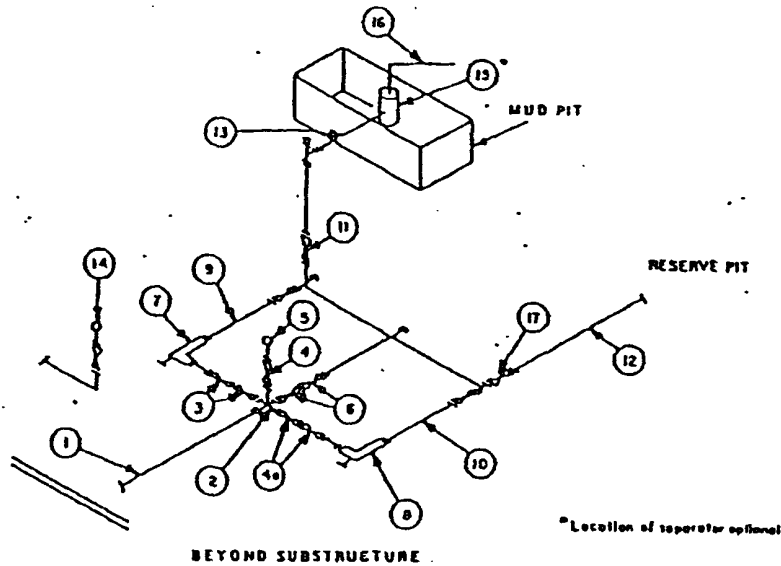
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

MINIMUM CHOKE MANIFOLD
3,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP

EXHIBIT # 1



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
	Cross 3" x 3" x 3" x 3"									10,000
3	Valves (1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves (1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

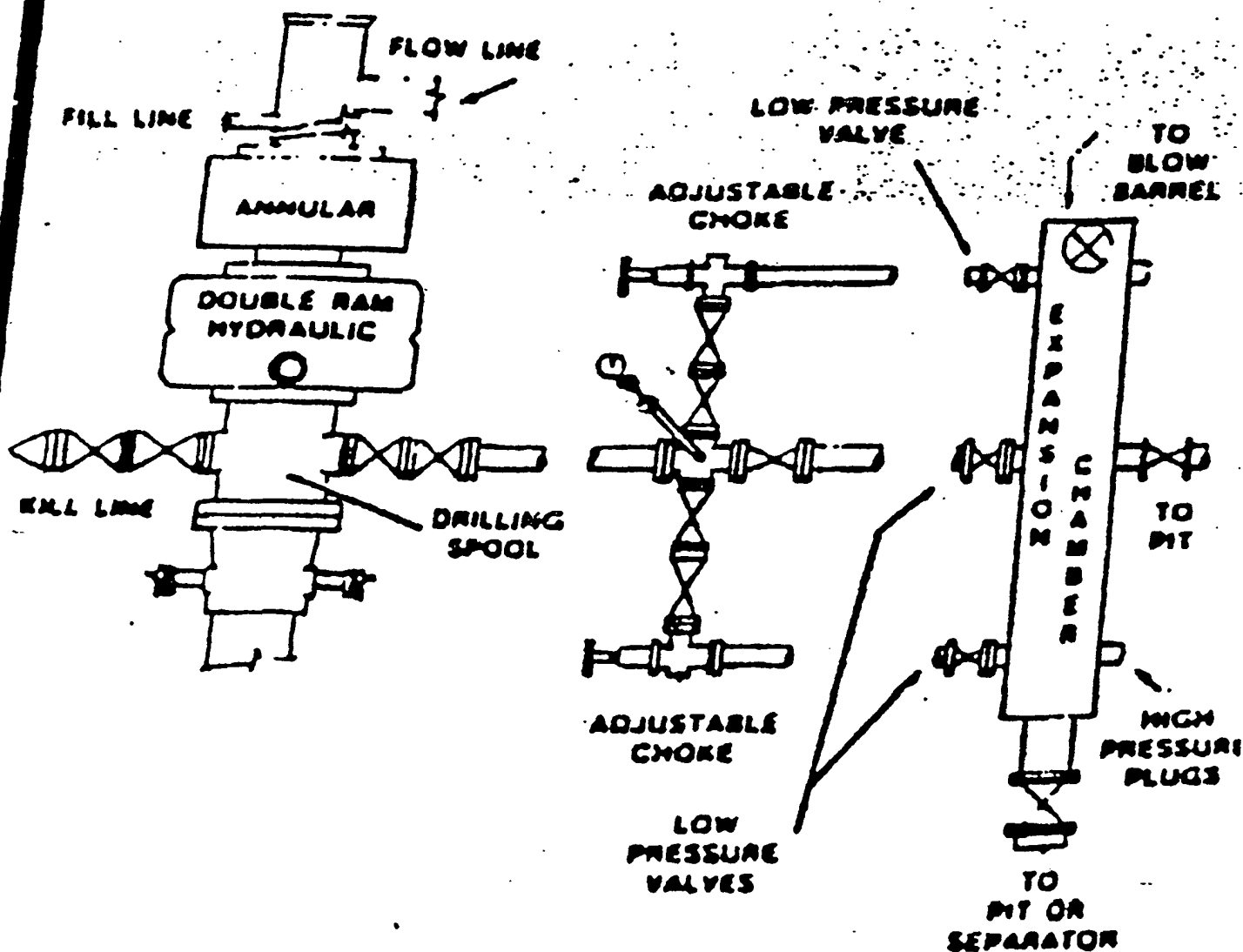
(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

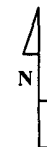
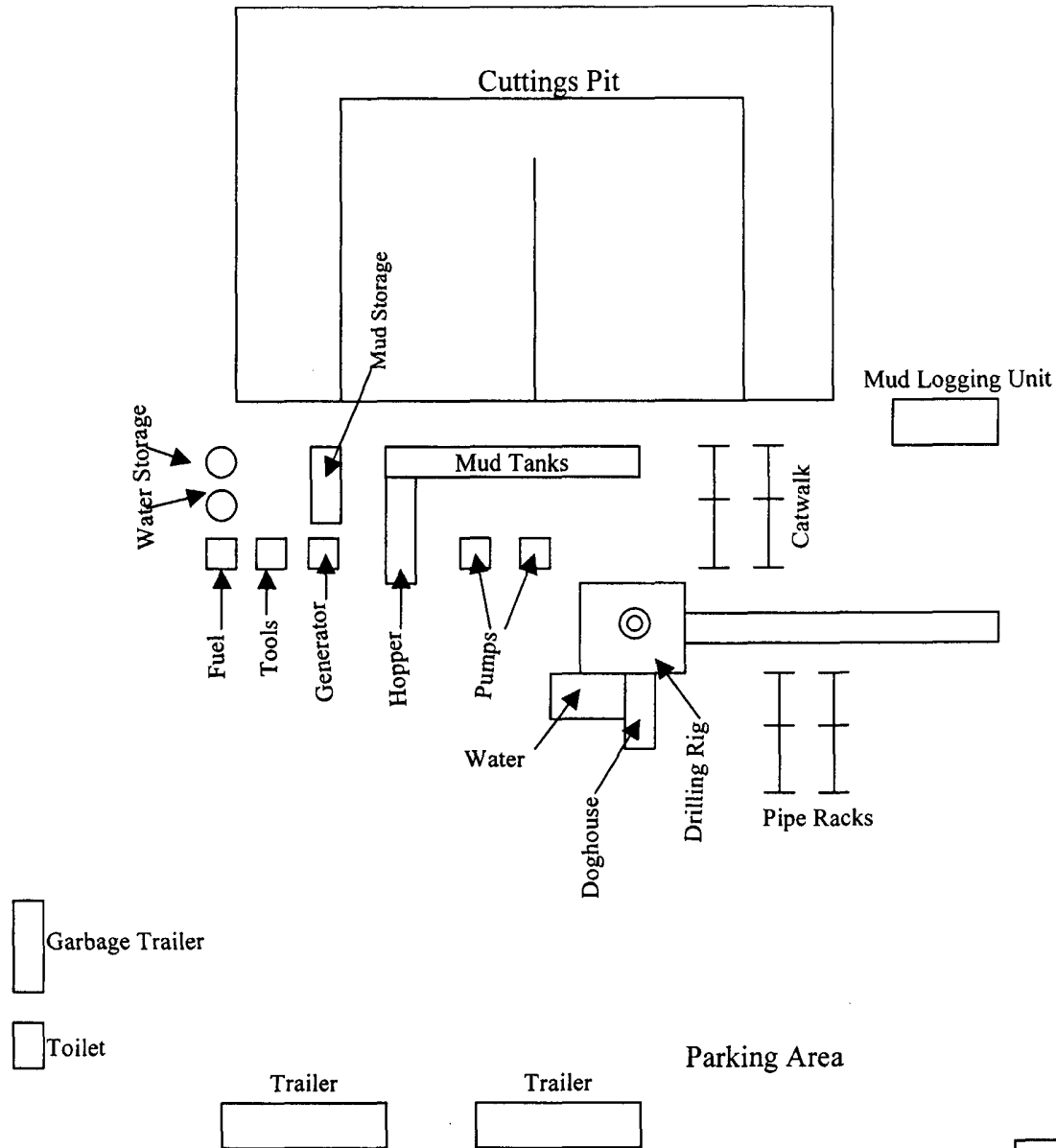
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.



Standard Blowout Preventer Stack



Devon Energy Production Company, LP HB 10 FEDERAL #2
Drilling Pad Exhibit #

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

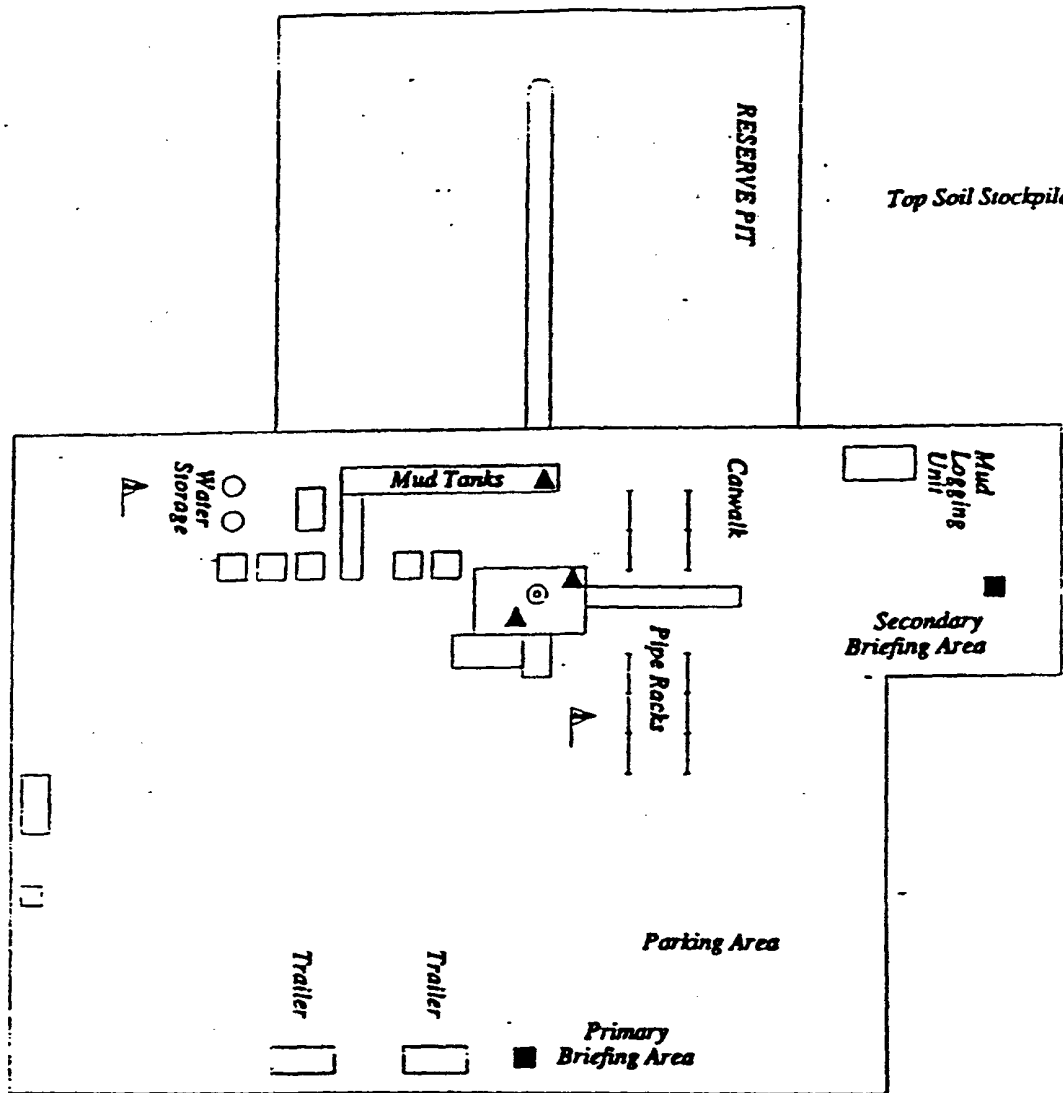
- (a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

7. Communication

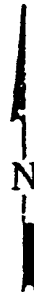
- (a) Two way radio and cellular telephone communication will be available in company vehicles.

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

DEVON COUNTY, NEW MEXICO

H2S PLAN

Scale in Feet

25 0 25 50 75 100