

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CONTACT RECEIVING  
OFFICE FOR NUMBER  
OF COPIES REQUIRED  
(Other instructions on  
reverse side)

30-015-26739  
BLM Roswell District  
Modified Form No.  
NM60-3160-2

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER ☐

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Conoco Inc.

3a. Area Code & Phone No.

915-686-6548

3. ADDRESS OF OPERATOR

10 Desta Drive, Suite 100W, Midland, TX 79705

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

At surface

710' FSL & 1980' FEL

At proposed prod. zone

Cisco

MAY - 6 1991

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

O. C. D.  
ARTESIA OFFICE

13. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

8100'

20. ROTARY OR CABLE TOOLS

Rotary

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

GR 3604.3

22. APPROX. DATE WORK WILL START\*

5/7/91

PROPOSED CASING AND CEMENTING PROGRAM

Roswell Controlled Water Basin

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	9 5/8"	36/40#	K-55	LT&C	1200' CIRCULAR	12000 syx
8 3/4"	7"	26#	K-55	LT&C	8100' (see slips)	1800 syx

This well is proposed to be drilled as a Cisco oil producer.

Attachments

- 1) Well Location and Acreage Dedication Plat.
- 2) Attachment to Form 3160-3.
- 3) Proposed Well Plan Outline.
- 4) Surface Use Plan.
- 5) EXHIBIT A - New Mexico road map.
- 6) EXHIBIT B - Lease road and facilities map.
- 7) EXHIBIT B.1 - Location facility plat.
- 8) EXHIBIT C - Rig Layout.
- 9) BOP Specifications.
- 10) H<sub>2</sub>S Drilling Operations Plan.

Post ID-1  
5-18-91  
New Loc + API

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

*Jerry W. Hoover*

TITLE

Regulatory Coordinator

DATE

3-19-91

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

DATE

APPROVED BY

TITLE

DATE

5-2-91

APPROVAL SUBJECT TO:

GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

ATTACHED

\*See Instructions On Reverse Side

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

# OIL CONSERVATION DIVISION

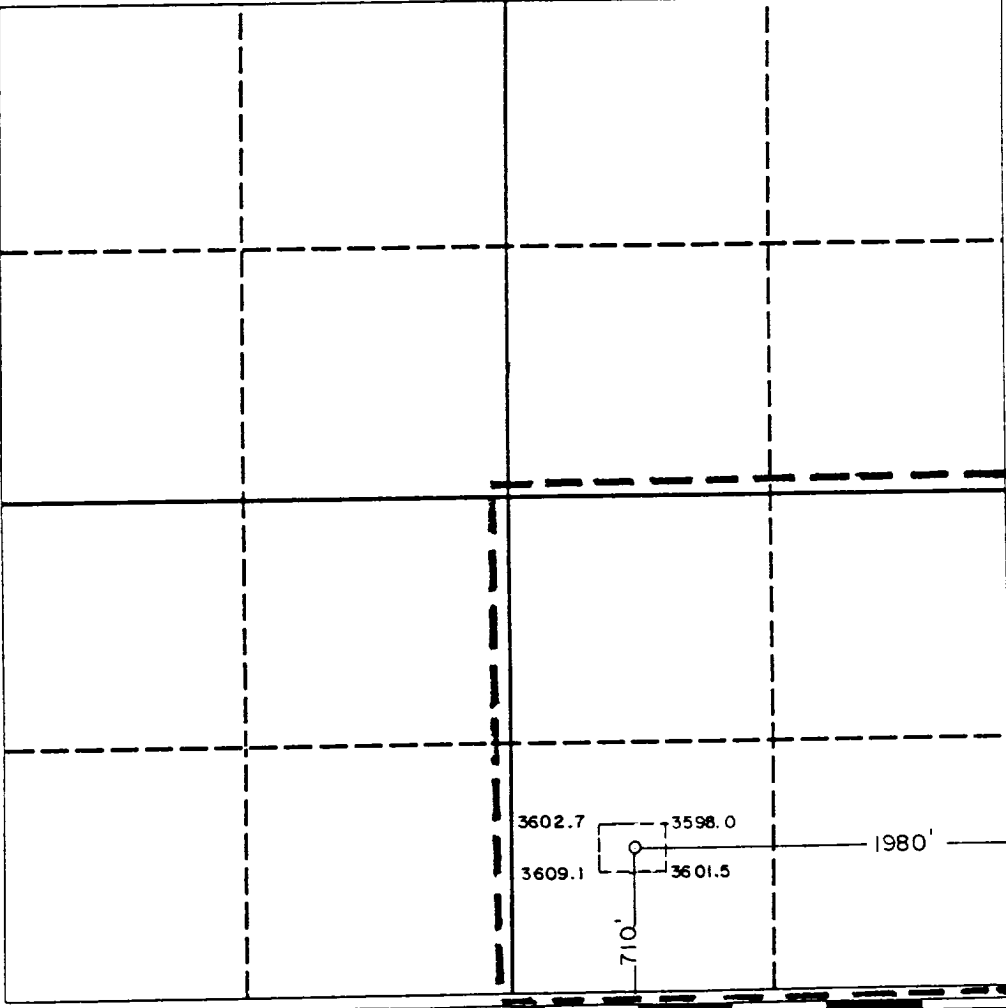
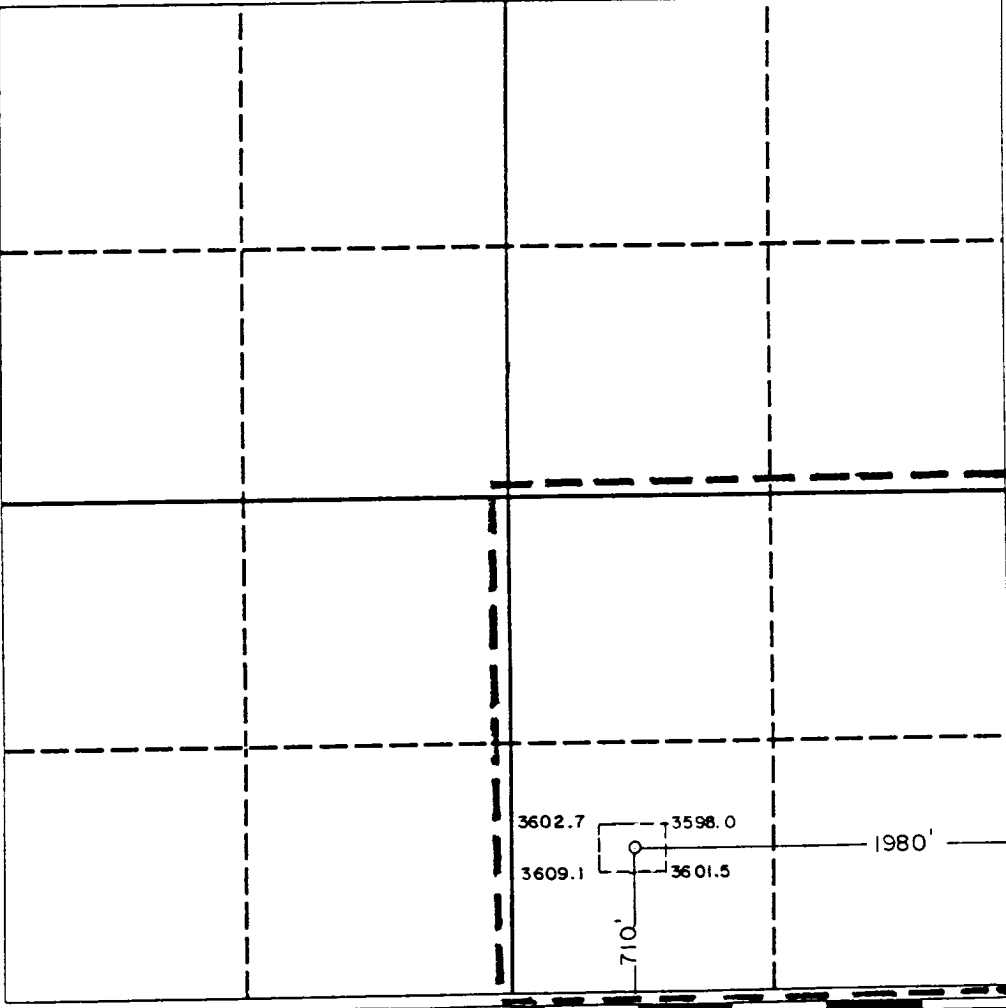
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

**DISTRICT II**  
P.O. Drawer DD, Artesia, NM 88210

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

# WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>CONOCO, INC.</b>			Lease <b>A 535 BARBRA FEDERAL</b>		Well No. <b>12</b>
Unit Letter <b>0</b>	Section <b>18</b>	Township <b>19 SOUTH</b>	Range <b>25 EAST</b>	County <b>EDDY</b>	
Actual Footage Location of Well: <b>710</b> feet from the <b>SOUTH</b> line and <b>1980</b> feet from the <b>EAST</b> line					
Ground level Elev. <b>3604.3</b>	Producing Formation <b>Cisco</b>		Pool <b>North Dagger Draw Upper Penn.</b>		Dedicated Acreage: <b>160</b> Acres
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes    <input type="checkbox"/> No    If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>					
				<b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
				Signature <i>Jerry W. Hoover</i>	
				Printed Name <b>Jerry W. Hoover</b>	
				Position <b>Regulatory Coordinator</b>	
				Company <b>Conoco Inc</b>	
				Date <b>3/19/91</b>	
				<b>SURVEYOR CERTIFICATION</b> 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 knowledge and belief.	
				Date Surveyed <b>3-13-91</b>	
				Signature & Seal of Professional Surveyor <i>Ronald J. Eidson</i>	
				Certificate No. <b>JOHN W. WEST, 676</b> <b>RONALD J. EIDSON, 3239</b>	

**ATTACHMENT TO FORM 3160-3**  
**APPLICATION FOR PERMIT TO DRILL**

**Conoco Inc.**

**Barbara Fed. No. 12**  
**710' FSL & 1980' FEL**  
**Sec. 18, T-19S, R-25 E**  
**Eddy County, New Mexico**

1. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan Outline.
2. The estimated depths at which anticipated water, oil, gas or other mineral-bearing formations to be encountered are shown on the attached Proposed Well Plan Outline.
3. A drawing of Blowout Preventer Specifications is attached. Pipe rams and blinds will be checked to the working pressure of the stack or 70% of the minimum internal yield strength of the casing whichever is less. BOPE will be checked when casing string is set.
4. The proposed casing program is as follows:  
0-1200': 9-5/8", 36/40# K-55  
1200'-8100': 7", 26# K-55
5. The proposed mud program is as follows:  
0-1200': 8.4-8.7# ~~Brine~~ Fresh Water  
1200'-7300': 8.8-9.2# Brine SJS  
7300'-8100': 8.8-9.2# Salt Gel
6. Run open-hole logs from 1200'-TD. The log suite will include the following:  
1) GR-CNL-LDT-CAL, 2) GR-DLL-MSFL. A temperature survey will be run to determine the top of cement on each casing string where cement is not circulated.
7. Special Drilling Problems:  
a) Possible H<sub>2</sub>S.  
b) Possible severe lost circulation in surface hole.
8. The anticipated starting date is 5-7-91 with a duration of approximately 21 days.

# PROPOSED WELL PLAN OUTLINE

WELL NAME: Barbara Federal No. 12 COUNTY: Eddy STATE: NM

LOCATION: 710' FSL, 1980' FEL EST. KB: \_\_\_\_\_

Section 18, T-19-S, R-25-E EST. GL: \_\_\_\_\_

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING SIZE-DEPTH	FRAC GRAD	FORM PRESS GRAD	(PPG) MUD WT & TYPE	DAYS
	Surface Water 300'		0'-1200' Deviation Survey each 250' not to exceed 3°					Spud 8.4-8.7	
1000		Known lost circulation from 0-1200'	Install H <sub>2</sub> S monitor @ 1200'	14-3/4"	9-5/8 @ 1200'		8.33	Cut Brine 8.8- 9.2	4
	Glorieta 1989'	H <sub>2</sub> S poss. to TD	Install a 2- man mudlogger 1200'-TD		w/2000 sx "lite" & "C" (to protect from surface waterflows and severe Lost circ.)				6
2000	Yeso 2145'	Deviations from 4-6° likely from 4500'-5500'	1200'-3000' Deviation survey each 250' not to exceed 5° or 1°/100' DLS					pH >10 to TD	8
3000									10
4000	Abo 4198'				DV tool above lower Abo LC zone (If Nec) 4500'				13
5000	Wolfcamp 5100'								17
6000			3000'-TD Deviation survey each 250' or as needed not to						20
7000		H <sub>2</sub> S possible in Cisco	exceed 5° or 1°/100' DLS					Mud up with salt gel and starch @ 7300'	25
8000	Cisco 7600'			8-3/4"	7" @ 8100'	15	8.3-	8.8-9.2	
	Target TD 8100'		GR-CNL-LDT- DLL-MSFL-CAL from 8100'- 1200'		w/1800 sx "H" & "C" lite		9.0		
9000			Image Log from 8100'-7600'						

**SURFACE USE PLAN  
Conoco Inc.**

**Barbara Federal No. 12**

The following is the required information concerning the possible effect which the proposed drilling of this well may have on the environment, existing road sites, and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items of this plan.

1. Existing Roads

- A. The proposed well site is 710' FSL & 1980' FEL, Sec. 18, T-19S, R-25E, Eddy County, New Mexico.
- B. Exhibit "A" is a portion of a New Mexico road map showing existing roads. Directions to the location are as follows:  
From the junction of U.S. 285 and 82, go south for 13.1 miles. Turn west on County Road 21 and go 7.1 miles. Turn north on lease road and take the first left to the Barbara Federal No. 8 location and continue west on abandoned road to the location.
- C. Access roads are shown on Exhibit "B".
- D. No improvement or maintenance is anticipated for the existing roads.

2. Planned Access Roads

- A. 680' from Barbara No. 8 location on abandoned road to location.
- B. No turnout will be required.
- C. No culverts, or fills will be required.
- D. No gates, cattleguards, or fences will be required.

3. Location of Existing Wells

See Exhibit "B"

4. Location of Proposed Facilities if Well is Productive

Existing producing facilities are shown on Exhibit "B".

5. Water Supply

Fresh water will be secured from the adjacent Barbara Federal No. 8 location and will be either trucked or transported through a temporary line.

6. Source of Construction Materials

Caliche from pit located in SE/4 SE/4 Sec. 17, T-20S, R-38E

Methods of Handling Waste Disposal

Waste Disposal: Well cuttings will be disposed in reserve pit. Barrel trash containers to be in accessible locations within drill site area during drilling and completion procedures. All detrimental waste will be hauled away, burned or buried with a minimum cover of 24" of dirt. See Exhibit "C" for location of pits. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. Any produced water will be collected in tanks until hauled to an approved disposal system, or separate disposal applications will be submitted to survey for appropriate approval.

8. Ancillary Facilities

See Exhibit "B.1" for details of the required power line and flowline for this well.

9. Wellsite Layout

See Exhibit "C". The reserve pit will be lined with plastic. The pad and pits are staked.

10. Plans for Restoration of Surface

Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location and rehabilitation of the surface is planned to be completed within 45 days from commencement.

11. Surface Ownership

Bureau of Land Management. Leased by Yates Petroleum.

12. Other Information

An archaeological survey will be conducted by Pecos Archaeological Consultants.

13. Operator's Representative and Certification

The person who can be contacted concerning compliance of this Surface Use Plan is:

**Gary L. Smith  
10 Desta Drive West  
Midland, Texas 79705  
(915)686-5471**

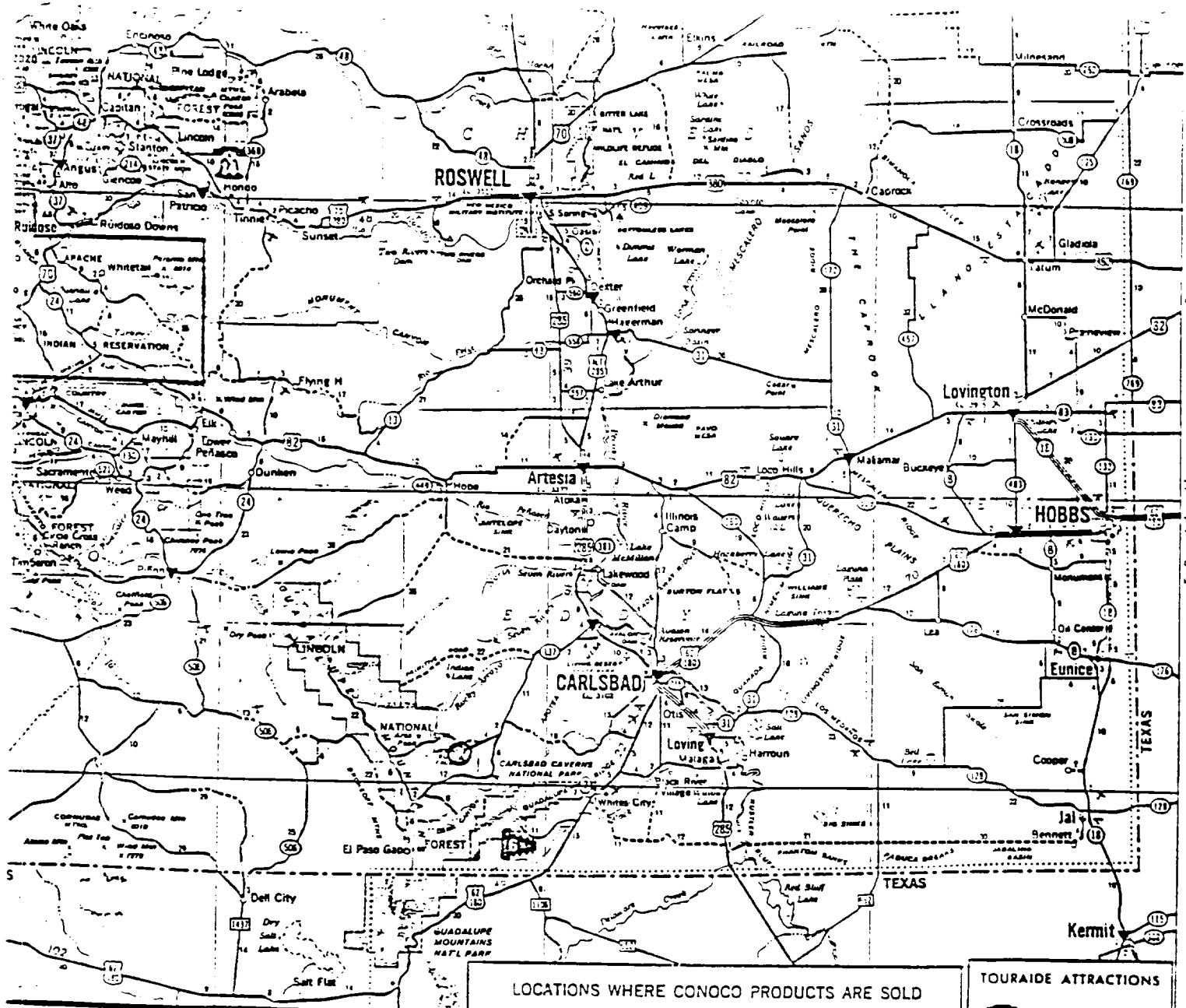
*I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site; that I am familiar with the conditions which currently exist; that the statements made in this plan, are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Conoco Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.*

3/25/91

Date

Gary L. Smith for GLS  
Gary L. Smith  
Drilling Superintendent

JWH/tm



**LOCATIONS WHERE CONOCO PRODUCTS ARE SOLD**

▼ Locations on Interstate Highways, toll roads or major limited access highways where CONOCO PRODUCTS are sold.

▼ Locations of CONOCO Travel Shoppes.

▼ Locations where CONOCO DEALERS provide Trailer Travelers with Sanitary Disposal Facilities. Look for this sign:

▼ Other CONOCO station locations.

**conoco**

T TRAILER DISPOSAL

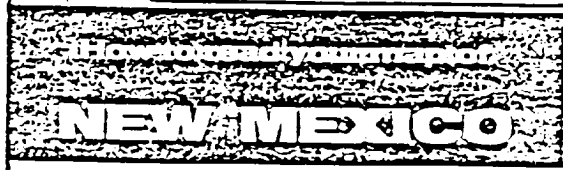
**TOURAIDE ATTRACTIONS**

HISTORICAL

SCENIC

GENERAL

Attraction points described on reverse 1-60



**SCALE IN MILES AND KILOMETERS**

ONE INCH 22 MILES 0 5 10 20 30

ONE INCH 35 KILOMETERS 0 5 10 20 30 40

**HIGHWAY MARKERS**

INTERSTATE UNITED STATES STATE TEXAS FARM OR RANCH

**ROAD CLASSIFICATIONS**

CONTROLLED ACCESS DIVIDED HIGHWAYS

OTHER DIVIDED HIGHWAYS

PRINCIPAL THROUGH HIGHWAYS

OTHER THROUGH HIGHWAYS

CONNECTING HIGHWAYS

LOCAL ROADS in unpopulated areas and where local roads are shown.

**MILEAGES**

LONG DISTANCE MILEAGES SHOWN IN RED

MILEAGE BETWEEN TOWNS AND JUNCTIONS

MILEAGE BETWEEN DOTS

ONE MILE EQUALS 1.6 KILOMETERS

ONE KILOMETER EQUALS .6 MILES

**SPECIAL FEATURES**

STATE PARKS

RECREATION AREAS

PORTS OF ENTRY

POINTS OF INTEREST

POPULATION SYMBOLS

State Capital

Under 1,000

1,000 to 2,500

2,500 to 5,000

5,000 to 10,000

10,000 to 25,000

25,000 to 50,000

50,000 to 100,000

100,000 and over

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[illegible]

EXHIBIT B

SECTION 18, TOWNSHIP 19 SOUTH, RANGE 25 EAST, NMPM,  
EDDY COUNTY, NEW MEXICO.



SECTION 18

U.S.A.  
YATES PETROLEUM

SECTION 18, TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



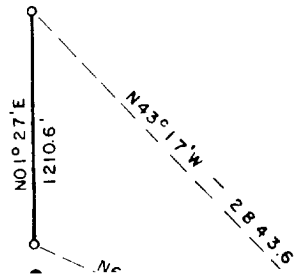
U.S.A.  
YATES PETROLEUM

18

12+10.6 E.O.L. EXIST.  
POLE

1+00  $\nabla$  CALICHE RD.

0+00 150' NORTH OF LOC.



SECTION 18 , TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



18

0+00 NO.12 LOCATION  
1+50 LEAVE PAD  
5+41 BPL  
5+53 BPL  
5+65 P.I. 60° 22' RT.

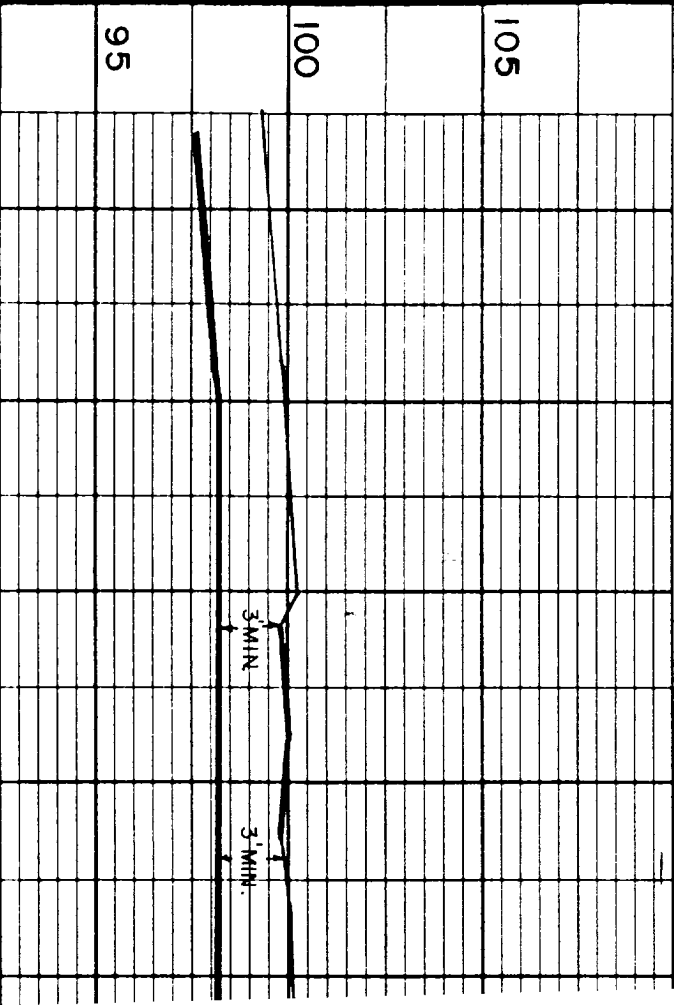
U.S.A.  
LEASED BY  
S.P. YATES



SECTION 19, TOWNSHIP 19 SOUTH, RANGE 15 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



18

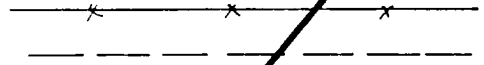


7+60 R.O.W. FC.  
7+68 E/A

7+90 C. CO. RD. NO. 21

8+14 E/A

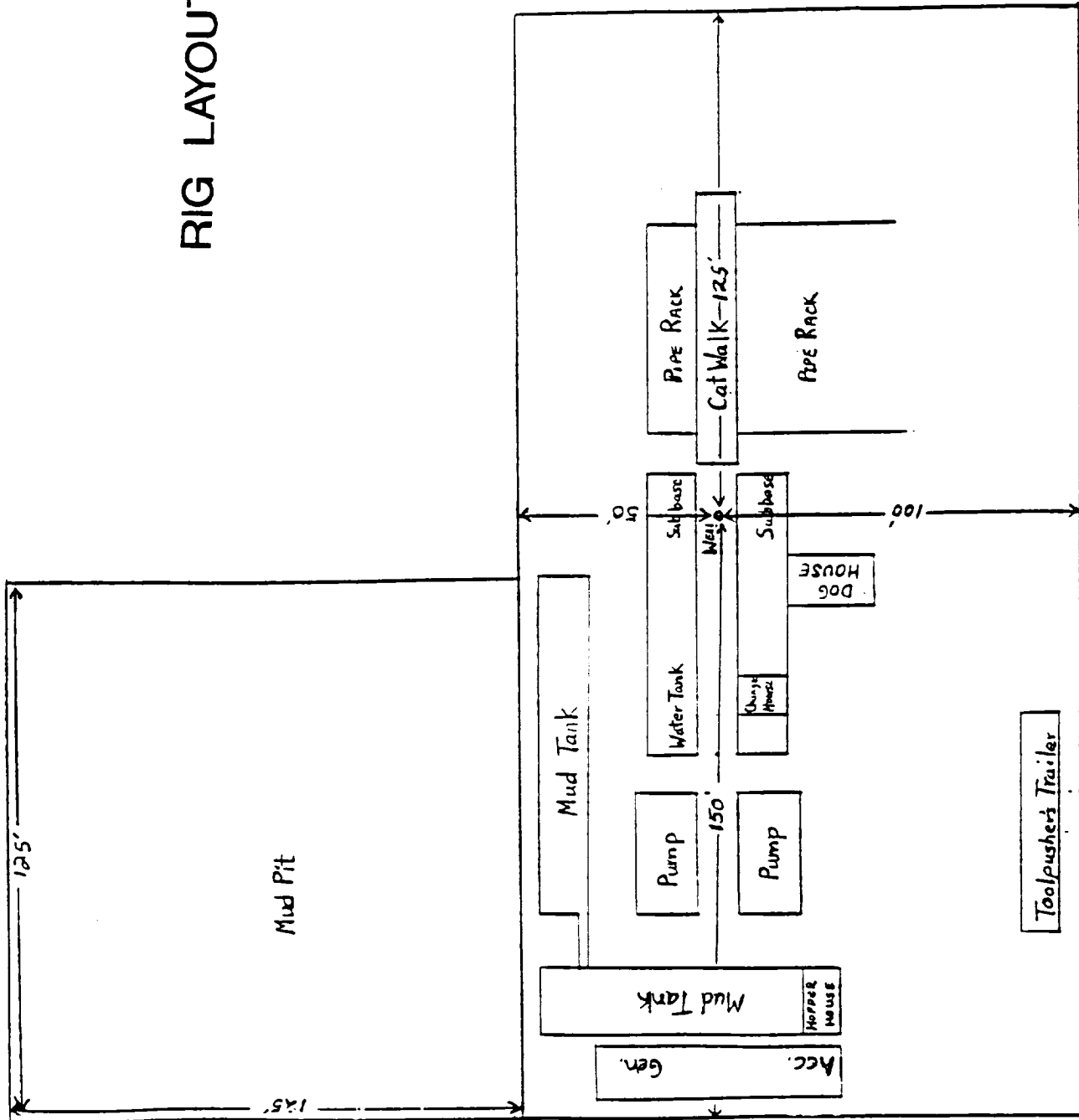
8+26 P.I. LT. 07°19'  
R.O.W.



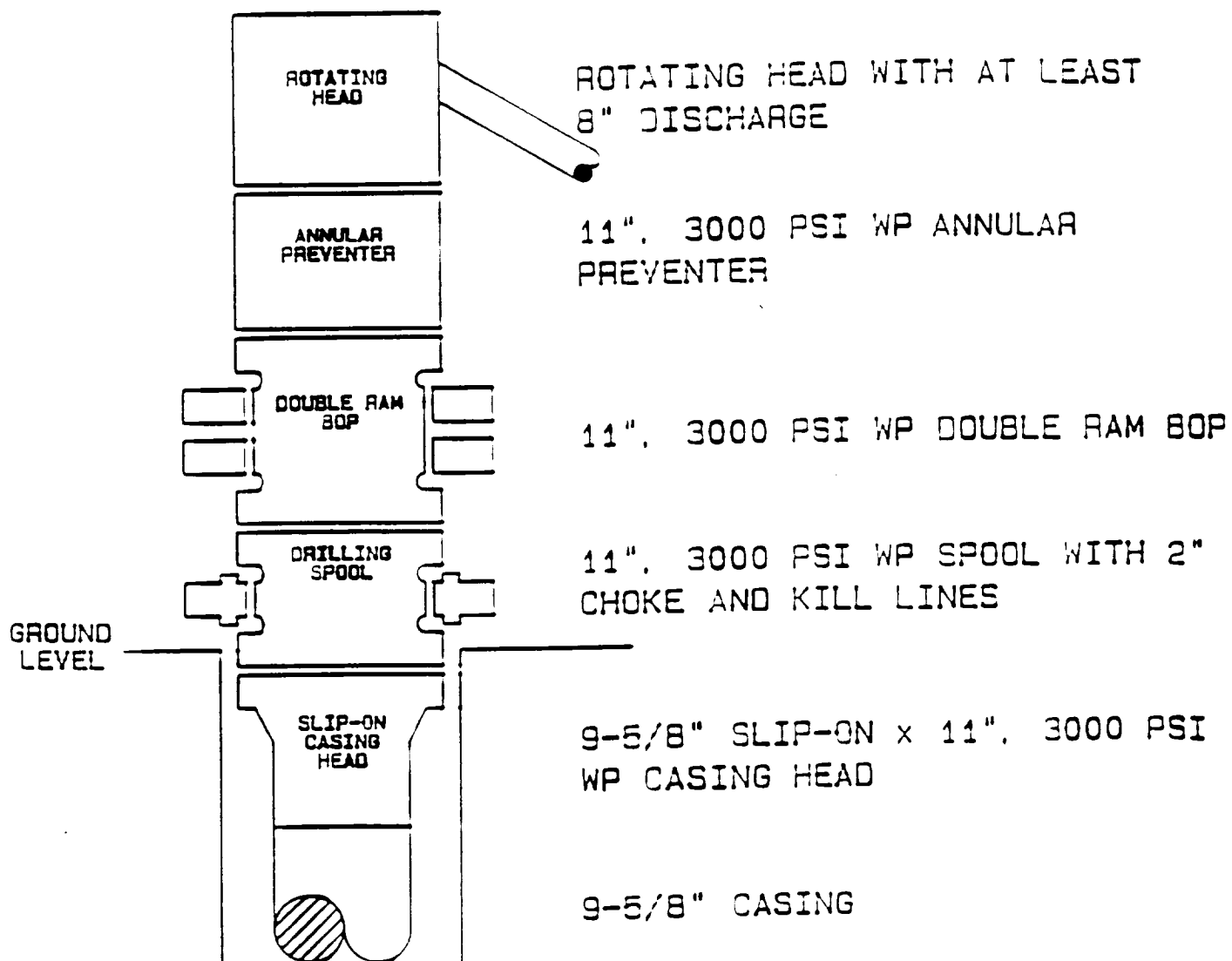
150°

S 85° 10' E  
2183.9'

# RIG LAYOUT



## BOP SPECIFICATIONS





## DRILLING OPERATIONS PLAN

### I. Hydrogen Sulfide Training

All contractors and subcontractors employed by Conoco will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. Safety precautions
3. Operations of safety equipment and life support systems.

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

1. The effect of H<sub>2</sub>S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-down procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

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

#### 1. Safety Equipment

The following safety equipment will be on location.

- A. Wind direction indicators as seen in attached diagram.
- B. Automatic H<sub>2</sub>S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs as seen on the attached diagram. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the dog house and at briefing areas as seen in the attached diagram.

## 2. Well Control Systems

### A. Blowout Prevention Equipment

Equipment includes but is not limited to:

- a. pipe rams to accomodate all pipe sizes
- b. blind rams
- c. choke manifold
- d. closing unit

Auxillary equipment added as appropriate includes:

- |                                     |            |
|-------------------------------------|------------|
| a. annular preventor                | <u>YES</u> |
| b. rotating head                    | <u>YES</u> |
| c. mud-gas separator                | <u>N/A</u> |
| d. flare line and means of ignition | <u>N/A</u> |
| e. remote operated choke            | <u>N/A</u> |

### B. Communication

The rig contractor will be required to have two-way communication capability. Conoco will have either land-line or mobile telephone capabilities.

### C. Mud Program

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

### D. Drill Stem Test intervals are as follows:

DST No. 1	<u>NONE</u>	ft. to	<u>      </u>	ft.
DST No. 2	<u>      </u>	ft. to	<u>      </u>	ft.
DST No. 3	<u>      </u>	ft. to	<u>      </u>	ft.

Drill Stem Testing Safety Rules are attached.

## III. WELL SITE DIAGRAM

A complete well site diagram including the following information is attached.

1. Rig orientation
2. Terrain
3. Briefing areas
4. Ingress and egress
5. Pits and flare lines
6. Caution and danger signs
7. Wind indicators and prevailing wind direction

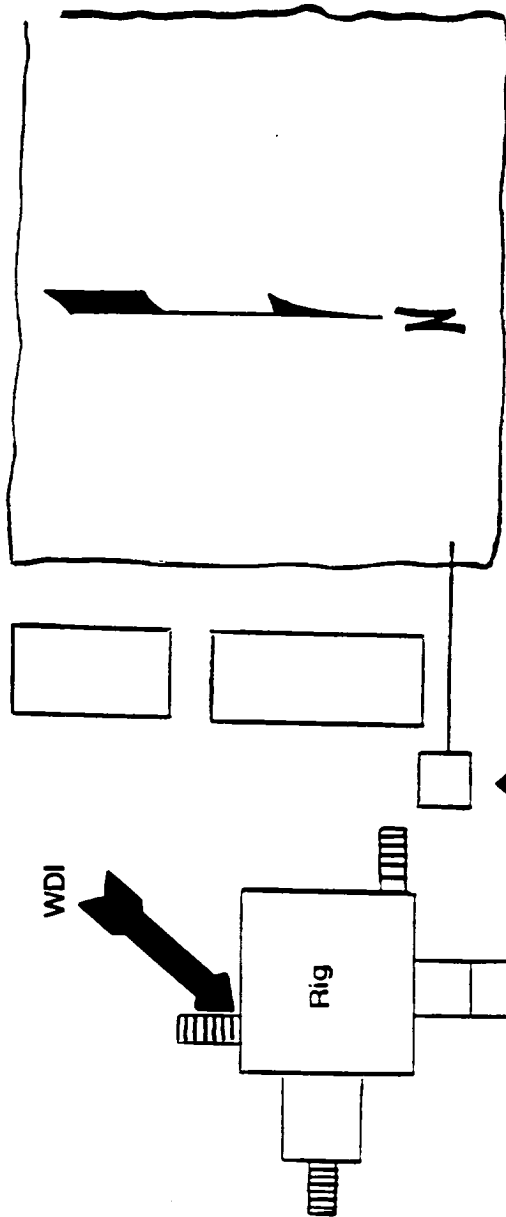
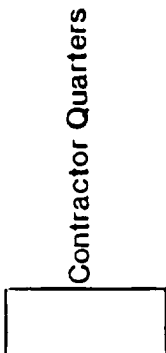
WDI



Terrain is flat, and covered with native grasses  
Two of the three WDI (wind direction indicator) locations will be utilized  
(Prevailing winds are SW to NE)



Muster Area No. 1



Access road

Muster Area No. 2  
WDI

