

Form 3160-3
(July 1987)
(formerly 9-3310)

NM OIL CONS. COMMISSION
ARTESIA, NEW MEXICO
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

30-015-27900
BLM Roswell District
Modified Form No.
NMD60-3160-2

c/sf

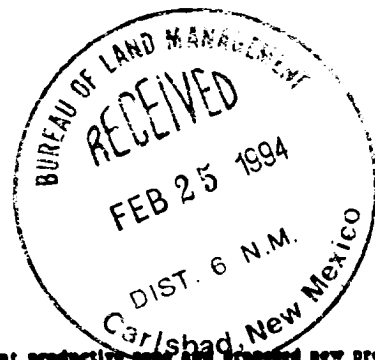
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		1b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	
2. NAME OF OPERATOR Conoco, Inc. ✓		3a. Area Code & Phone No. (915) 686-6548			
3. ADDRESS OF OPERATOR 10 Desta Dr. Ste 100W, Midland, TX 79705					
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface: 660' FSL & 660' FEL At proposed prod. zone: Cisco					
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE UT.P					
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)		16. NO. OF ACRES IN LEASE		17. NO. OF ACRES ASSIGNED TO THIS WELL	
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 DP, RT, GR, etc.) 3526'				22. APPROX. DATE WORK WILL START 3/15/94	

23. PROPOSED CASING AND CEMENTING PROGRAM						
HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4"	9-5/8"	36#	K-55	ST&C	1200'	1100 circ.
8-3/4"	7"	24#	K-55	LT&C	8100'	1200 circ.

It is proposed to drill this well as a vertical Cisco oil producer according to the drilling plan outlined in the following attachments:

1. Well Location and Acreage Dedication Plat (C-102)
2. Attachment to Form 3160-3
3. Proposed Well Plan Outline
4. Surface Use Plan
5. EXHIBIT A: New Mexico road map
6. EXHIBITS B.1 & B.2: Well location and Lease road maps
7. EXHIBIT B.3: 7.5" Quadrangle Topo Area Map
8. EXHIBITS C.1, C.2 & C.3: Pipeline & Powerline Plats
9. EXHIBIT D: Rig Layout Plat
10. BOP and Choke Manifold Specifications
11. H2S Drilling Operations Plan



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 [Signature] TITLE Sr. Conservation Coordinator DATE 2/23/94
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY (ORIG. SGD.) RICHARD L. MANUS TITLE AREA MANAGER DATE MAR 28 1994
CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED.
See Instructions On Reverse Side
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 a false statement.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

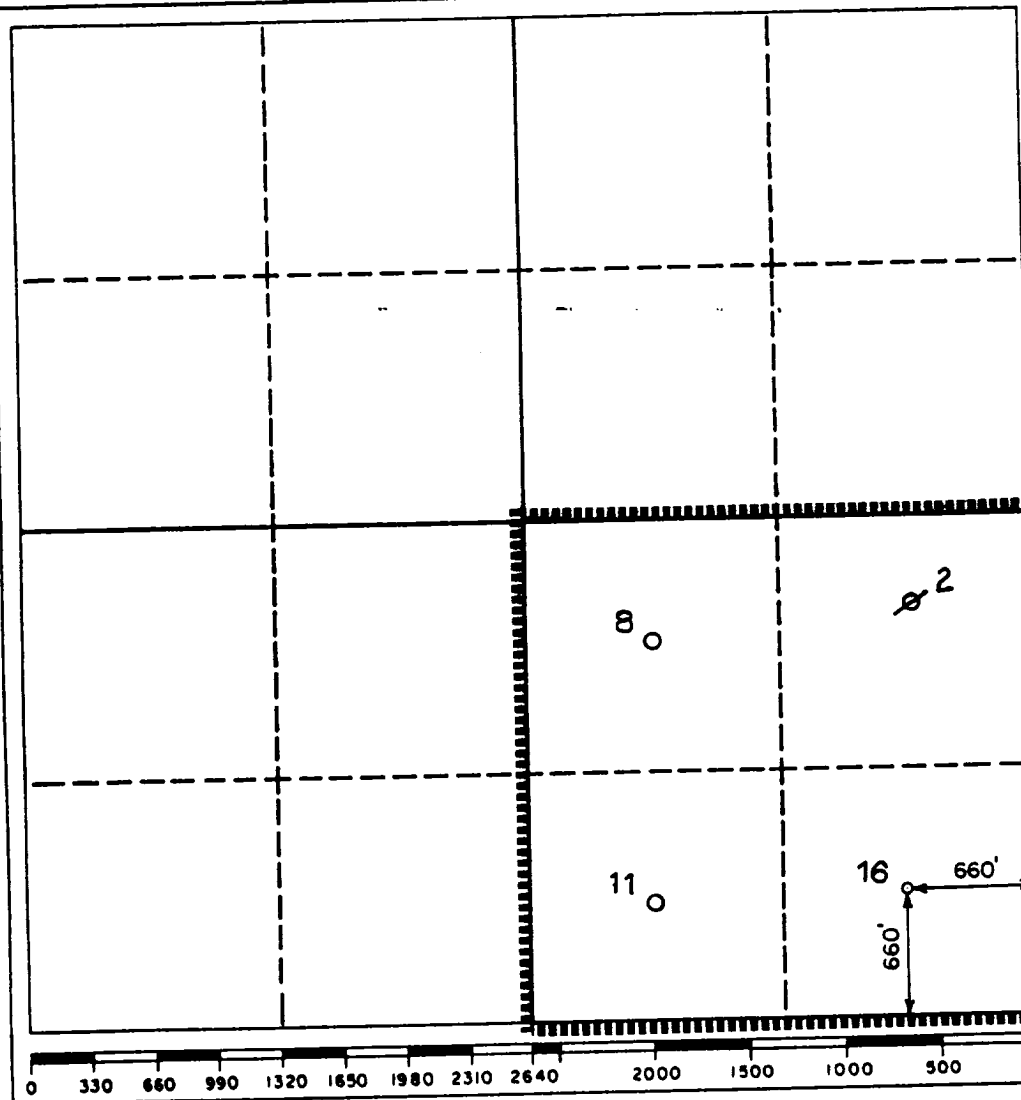
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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 CONOCO, INC.			Lease DAGGER DRAW 30SE COM		Well No. 16
Unit Letter P	Section 30	Township 19-S	Range 25-E	County EDDY	
Actual Footage Location of Well: 660 feet from the SOUTH line and 660 feet from the EAST line					
Ground level Elev. 3526'	Producing Formation Cisco		Pool North Dagger Draw Upper Penn.		Dedicated Acreage: 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
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).
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.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)
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.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature
Jerry W. Hoover
Printed Name
Jerry W. Hoover
Position
Sr. Conservation Coordinator
Company
Conoco Inc.

Date
3/22/94

SURVEYOR CERTIFICATION

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

Date Surveyed
APR 4 1994
Signature & Seal of Professional Surveyor
[Signature]
Certificate No. 8278
REGISTERED PROFESSIONAL LAND SURVEYOR

ATTACHMENT TO FORM 3160-3
APPLICATION FOR PERMIT TO DRILL

Conoco Inc.

Dagger Draw 30SE Com No. 16
Sec. 30, T-19S, R-25E
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. BOP will be checked when casing string is set.
4. The proposed casing program is as follows:

0-1200':	9-5/8"	36#	K-55
0-8100':	7"	26#	K-55
5. The proposed mud program is as follows:

0-1200'	8.4# Fresh
1200'-7000':	8.8-9.2 Saturated Brine
7000'-8100':	9.2 Brine w/starch
6. The logging suite will include the following open-hole logs:
1) GR-CAL-DLL-MSFL-CNL-LDT from 8100'-1200' and 2) CBIL from 8100'-7000'. 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) Lost circulation 500'-1000.
 - b) H2S in the Yeso.
 - c) Possible deviation 4500'-5500'.
8. The anticipated starting date is 3-15-94 with a duration of approximately 18 days.

PROPOSED WELL PLAN OUTLINE

WELL NAME **DAGGER 30SE COM NO. 16**

LOCATION **660'FSL 660'FEL SECT. 30 T-19S R-25E EDDY CO.**

TVD IN 1000'	MD	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING SIZE DEPTH	FRAC GRAD	FORMATION PRESSURE GRADIENT	WT	MUD TYPE	DAYS
0			LOST CIRCULATION		14-3/4"			BELOW NORMAL	8.4	FRESH	
1				MUD LOGGERS AND EQUIPMENT ON @ 1200'		9-5/8" 1200' 36# K-55					3
2		GLORIETTA 1989' YESO 2145'	H2S IN YESO	H2S EQUIPMENT ON PRIOR TO YESO FORMATION				9.0 PPG	8.2-9.2	C/BRINE	
3											
4		ABO 4196'	POSSIBLE DEVIATION 4500'-5500'		8-3/4"						
5		WOLPCAMP 5100'									
6											
7									9.2	C/BRINE STARCH	
8		CISCO 7600'									16
9		TD 8100'		GR-CAL-DLL-MSFL GR-CAL-CNL-LDT CBIL		7" 8100' 26# K-55					18
10											
11											
12											
13											
14											
15											
16											

DATE February 1994

APPROVED D.L. KEITHLY
ENGINEER

DIVISION DRILLING SUPERINTENDENT

DIVISION ENGINEERING MANAGER

DIVISION EXPLORATION MANAGER

SURFACE USE PLAN
Conoco Inc.

Dagger Draw 30SE Com No. 16

The following is required information concerning the possible effect which the 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 660' FSL & 660' FEL, Sec. 30, T-19S, R-25E, Eddy County, New Mexico.
- B. Exhibit "A" is a portion of a New Mexico road map and Exhibit "B.1" a lease road map showing existing roads and wells. Directions to the location are as follows:

From Artesia go south on Hwy. 285. Turn west on Rock Daisy road and go 6 miles. Turn north on Cross Buck road for 1 mile. Then turn west 1/4 mile to location.

- C. No improvement or maintenance is anticipated for the existing roads.

2. Planned Access Roads

- A. No new access road will be required.
- 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.2"

4. Location of Proposed Facilities if Well is Productive

Production will be moved by flowline to the Dagger Draw Central battery at the Dagger Draw Well No. 4 location for facility treatment, storage and sales.

5. Location of Proposed Facilities if Well is Productive

Cisco production will be moved by flowline to the Preston Federal Battery at the location of the Preston Fed. Well No. 1.

6. Water Supply

Brine water will be trucked in. Fresh water by fasline from Foster's water well.

7. Source of Construction Materials

Caliche will come from the pit located in Unit G, Sec. 18, T-19S, R-25E.

8. 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. See Exhibit "D" 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.

9. Ancillary Facilities

See Exhibit C.1, C.2, and C.3 for a flowline and electric line plats. department.

10. Wellsite Layout

See Exhibit "D". The V-door faces east. The reserve pit will be lined with plastic and the pad and pits are staked.

11. Plans for Restoration of Surface

Pits will be backfilled and leveled to original condition when they are dry. 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.

12. Surface Ownership

Federal.

13. Other Information


An archaeological survey will be done on Federal Land crossed by the flowline and electric line in sections 19 and 30.

14. 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**

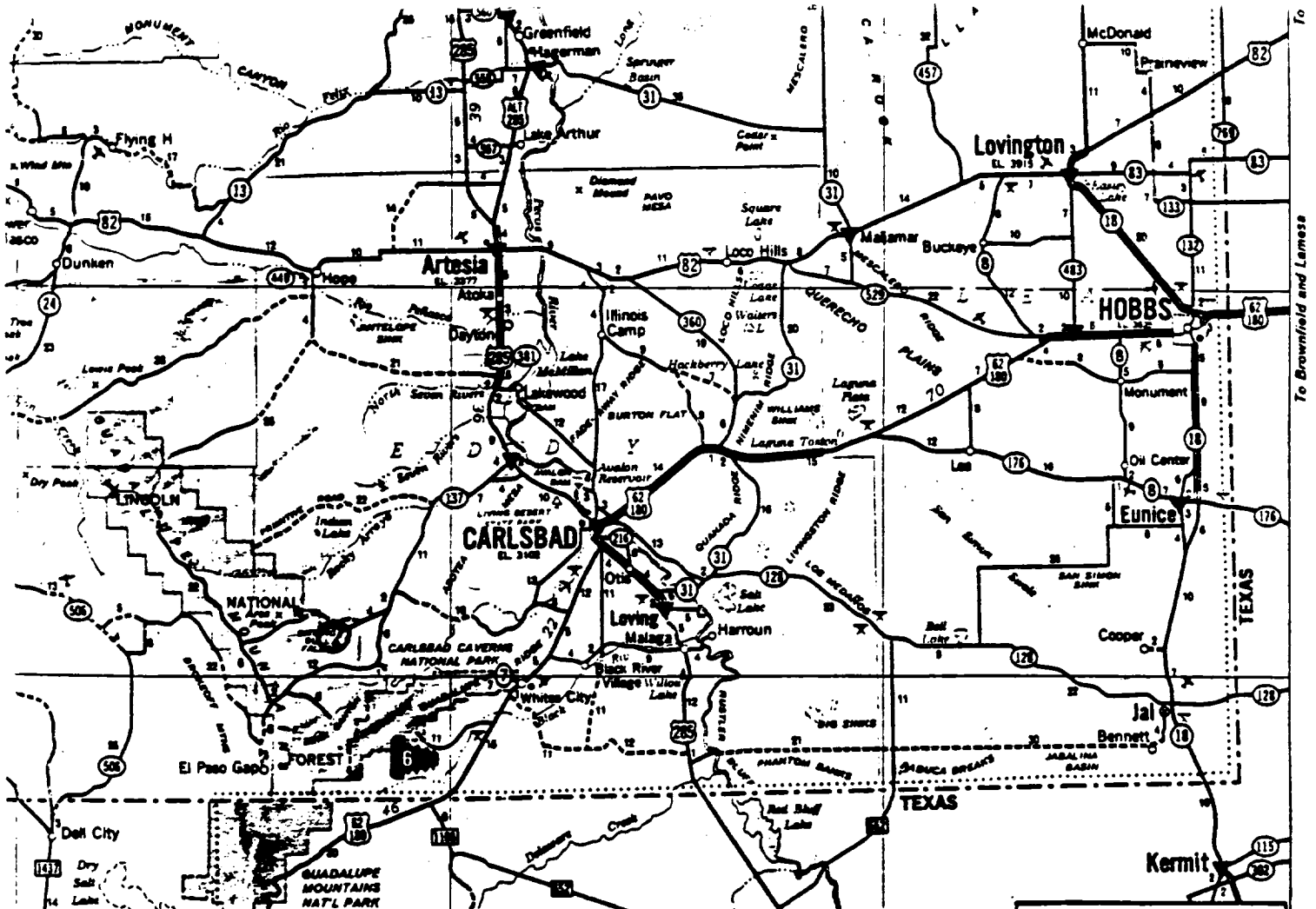
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site; that I am familiar with the conditions which currently exist; that the statements made in this plan, are, to the best of my knowledge, true and correct; and that the work associated with operations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

/ Gary Smith

Gary L. Smith,
Drilling Manager

2/24/94

Date



LOCATIONS WHERE CONOCO PRODUCTS ARE SOLD

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

▼ Other CONOCO station locations.

▼ Locations of CONOCO Travel Shoppes.



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



TOURAIDE ATTRACTIONS



HISTORICAL



SCENIC



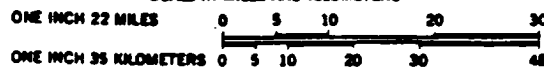
GENERAL

Attraction points described on reverse side

How to read your map of

NEW MEXICO

SCALE IN MILES AND KILOMETERS



HIGHWAY MARKERS

INTERSTATE (40) UNITED STATES (66) STATE (41) TEXAS FARM OR RANCH (52)

ROAD CLASSIFICATIONS

CONTROLLED ACCESS DIVIDED HIGHWAYS
Interstate interchange numbers are indicated.

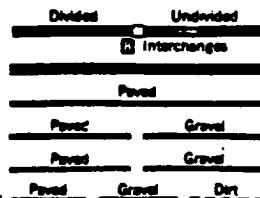
OTHER DIVIDED HIGHWAYS

PRINCIPAL THROUGH HIGHWAYS

OTHER THROUGH HIGHWAYS

CONNECTING HIGHWAYS

LOCAL ROADS in unfamiliar areas require caution before using these roads



MILEAGES

MILEAGE BETWEEN TOWNS AND JUNCTIONS 3 2 4

ONE MILE EQUALS 1.6 KILOMETERS

LONG DISTANCE MILEAGES SHOWN IN RED

MILEAGE BETWEEN DOTS 0 35 0

ONE KILOMETER EQUALS .6 MILES

SPECIAL FEATURES

STATE PARKS

With Campsites Without Campsites

RECREATION AREAS

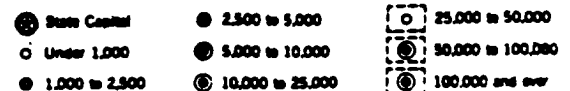
With Campsites Without Campsites

PORTS OF ENTRY

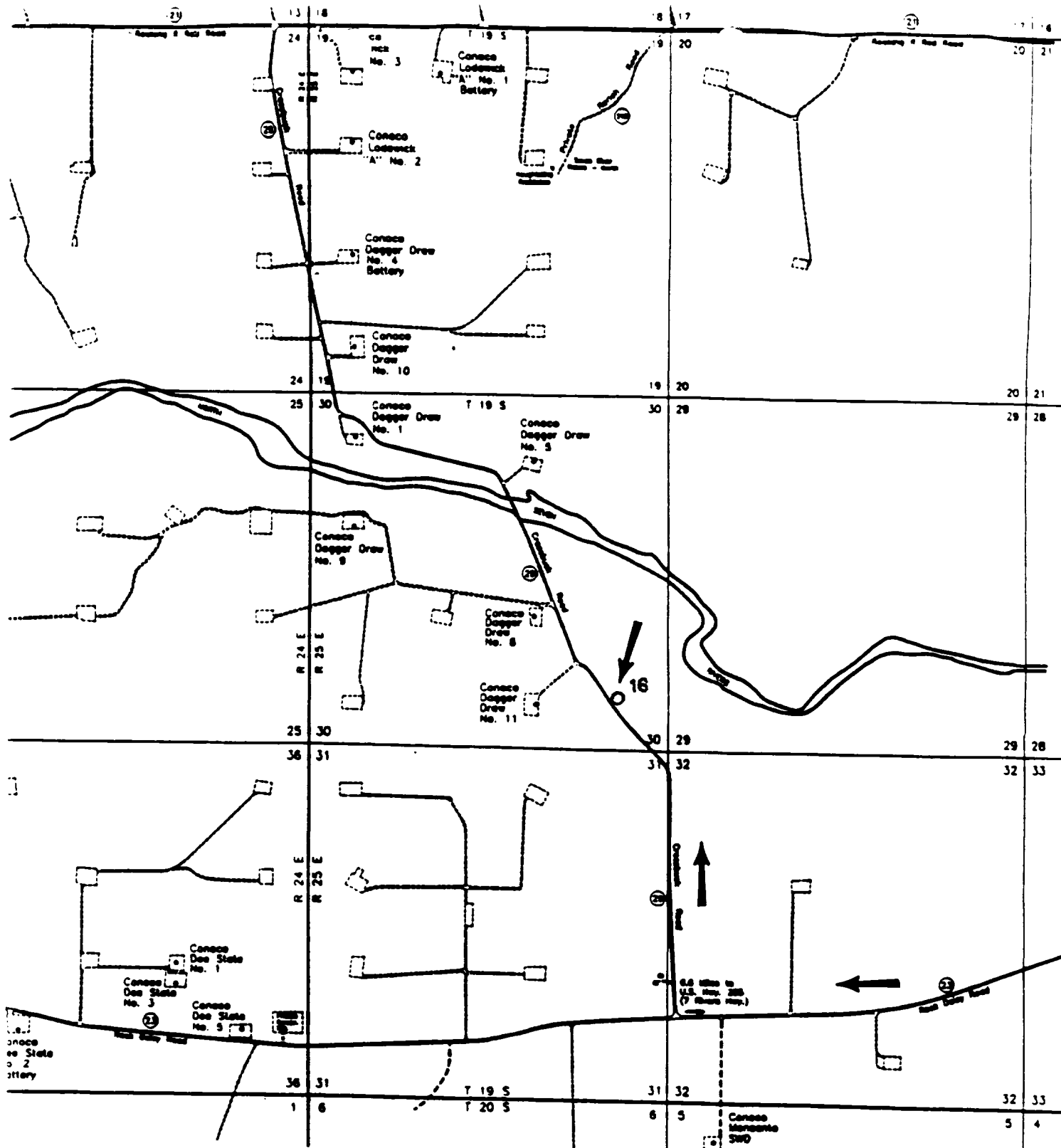
Open 24 Hours Inquire Locally

POINTS OF INTEREST

POPULATION SYMBOLS



G THE H. M. GOUSHA COMPANY
BOX 6827 SAN JOSE CALIF 95106
A Subsidiary of THE TRIST COMPANY



LEGEND

- Denotes Paved County Road
- Denotes Unpaved Lease Road
- Denotes County Road Number
- Denotes Production Well Location
- Denotes Abandoned Well (P&A)

CONOCO INC.

ROAD MAP
DAGGER DRAW AREA
EDDY COUNTY, N.M.

JOHN WEST ENGINEERING

Scale: See Bar Scale

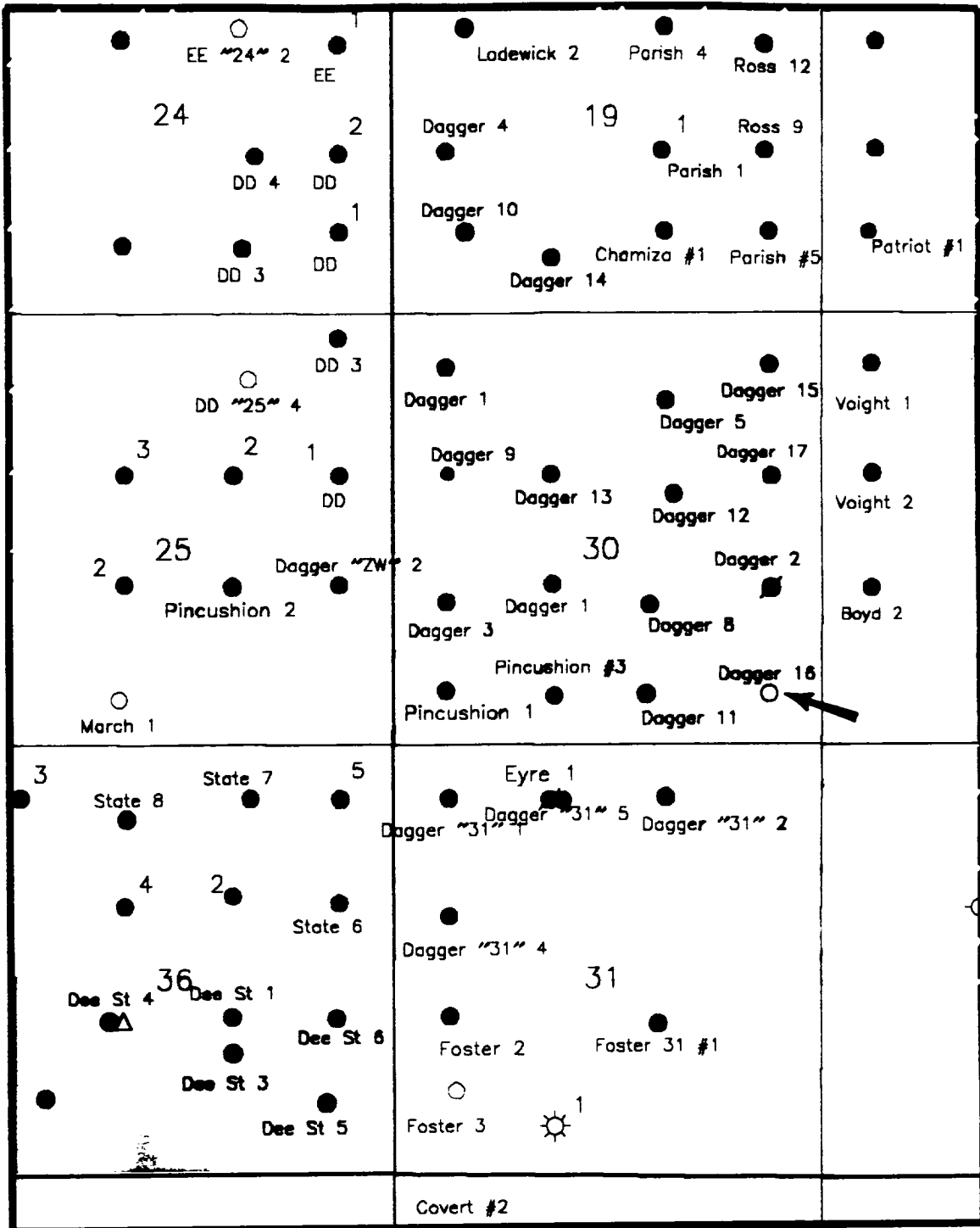
Date: 1-9-92

EXHIBIT B.1

R24E

R25E

T19S



CONOCO MIDLAND DIVISION

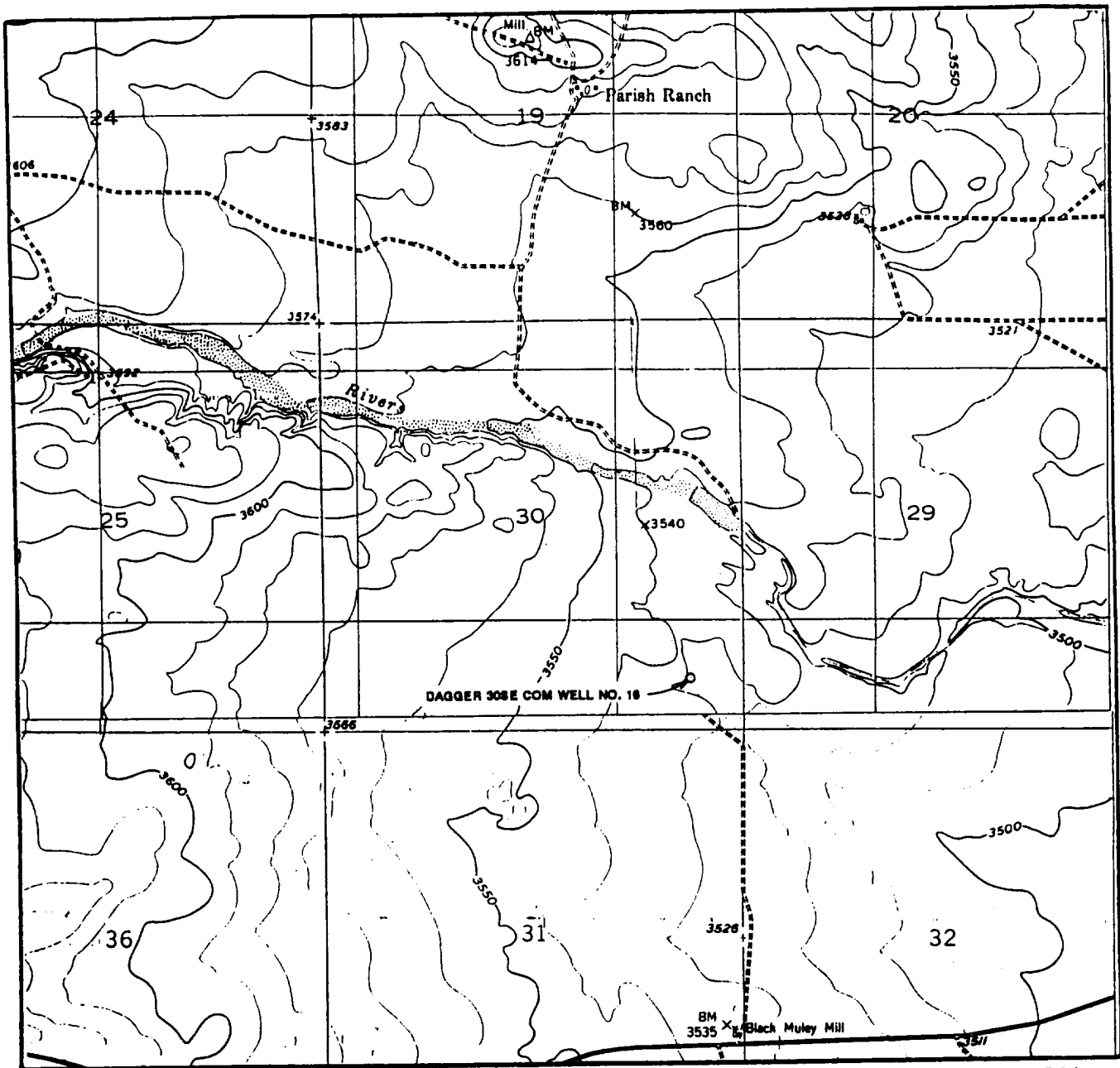
NORTH DAGGER DRAW
BASEMAP

SCALE 1" = 2000'

HOOPER

EXHIBIT B.2

LOC, 'ION VERIFICATION M. P



SCALE: 1" = 2000'

CONTOUR INTERVAL 10'

SEC. 30 TWP. 19-S RGE. 25-E
 SURVEY NMPM
 COUNTY EDDY STATE NM
 DESCRIPTION 660' FSL 660' FEL
 ELEVATION 3526
 OPERATOR CONOCO, INC.
 LEASE DAGGER DRAW 30SE COM WELL NO. 16

U.S.G.S. TOPOGRAPHIC MAP
 FOSTER RANCH, N. MEX. PARISH RANCH, N. MEX.

WEST TEXAS CONSULTANTS, INC.

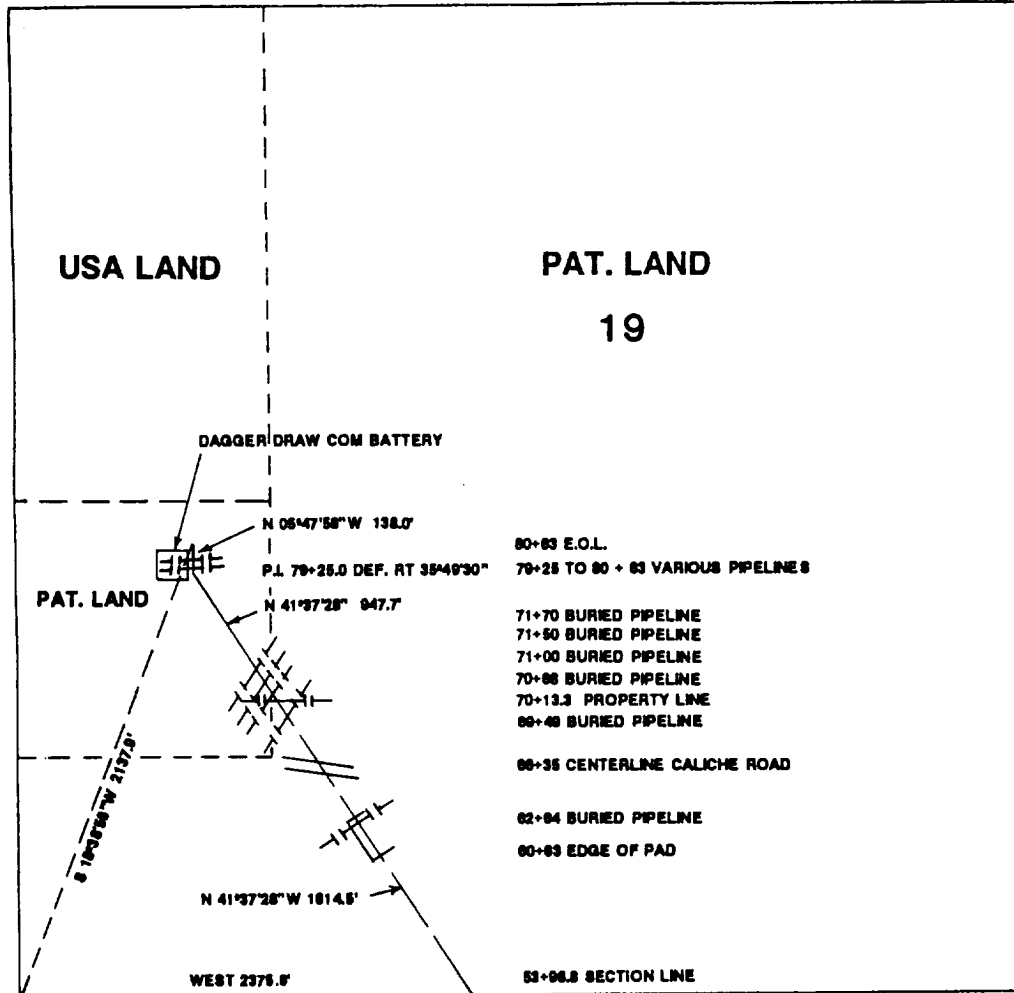
ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

915-685-3800

EXHIBIT B.3

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



CENTERLINE DESCRIPTION OF PROPOSED PIPELINE:

BEGINNING at a point in the east line of the northwest 1/4 of the southwest 1/4 of Section 19, T-19-S, R-25-E, N.M.P.M., from which point the southeast corner of the northwest 1/4 of the southwest 1/4 of Section 19 bears South 95.5 feet;

THENCE with proposed centerline as follows: N 41°37'28"W, 947.7 feet; N 05°47'58"W, 138.0 feet to point at the northeast corner of Daguer Draw Com Battery, from which point the southeast corner of said Section 19 bears S 18°38'56"W, 2137.9 feet.

I hereby certify that this plat was prepared from an actual survey made on the ground, and meets or exceeds all requirements for land surveys, as specified by the State of New Mexico.

Earl Foote

Earl Foote
Registered Professional Surveyor
New Mexico Certificate No. 8278



DAGGER DRAW COM, WELL #16 PIPELINE

CONOCO, INC.

Proposed Pipeline in Section 19,
T-19-S, R-25-E, N.M.P.M.
Eddy County, New Mexico

WEST TEXAS CONSULTANTS, INC.

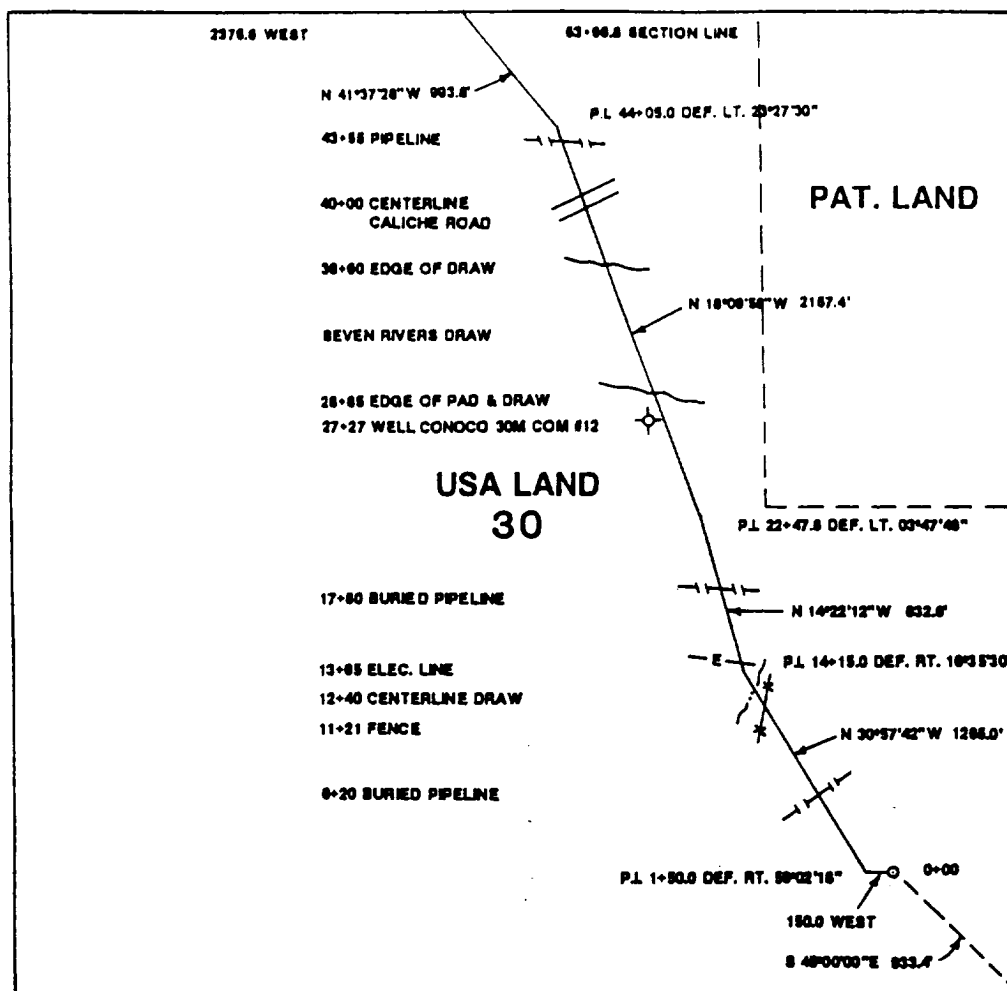
ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 2/4/94	Date: 2/14/94	Scale: 1" = 1000'
WTC No. 43631	Drawn by: R.S.	Sheet 1 of 1

EXHIBIT C.1

**SECTION 30, TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO**



CENTERLINE DESCRIPTION OF PROPOSED PIPELINE:

BEGINNING at Dagger Draw 30 SE Com Well #16, from which point the southeast corner of Section 30, T-20-S, R-25-E, N.M.P.M. bears S 45°00'00"E, 933.4 feet;

THENCE with proposed centerline as follows: West, 150.0 feet; N 30°57'42" W, 1265.0 feet; N 14°22'12"W, 832.6 feet; N 18°09'58"W, 2157.4 feet; N 41°37'28"W, 993.8 feet to a point in the north line of said Section 30, from which point the northwest corner of said Section 30 bears West 2375.6 feet.

I hereby certify that this plat was prepared from an actual survey made on the ground, and meets or exceeds all requirements for land surveys, as specified by the State of New Mexico.

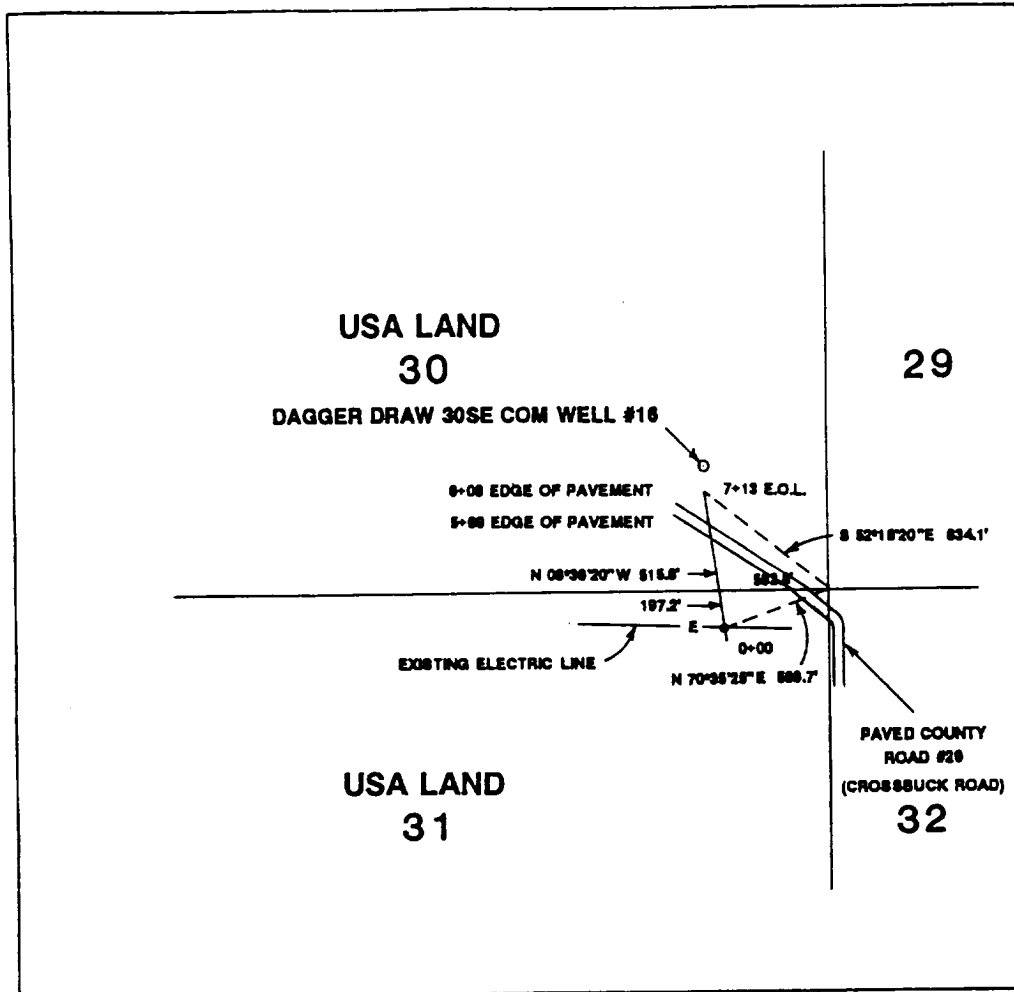
Earl Foote
Earl Foote
Registered Professional Surveyor
New Mexico Certificate No. 8278



DAGGER DRAW 30SE COM WELL #16 FLOWLINE

CONOCO, INC.		
Proposed Pipeline in Section 30, T-19-S, R-25-E, N.M.P.M., Eddy County, New Mexico WEST TEXAS CONSULTANTS, INC. ENGINEERS-PLANNERS-SURVEYORS MIDLAND, TEXAS		
Survey Date: 2/4/94	Date: 2/14/94	Scale: 1" = 1000'
WTC No. 43631	Drawn by: R.S.	Sheet 1 of 1

SECTIONS 30 AND 31, TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO



CENTERLINE DESCRIPTION OF PROPOSED ELECTRIC LINE:

BEGINNING at a point in an existing electric line from which point the northeast corner of Section 31, T-19-S, R-25-E, N.M.P.M. bears N 70°35'25"E, 586.7 feet; from said point an anchor easement bears S 08°36'20"E, 30.0 feet; THENCE N 08°36'20"W, with centerline at 197.2 feet cross the common line of Sections 30 and 31 continuing in all 713.0 feet for the end of this line, from which point the Southeast corner of Section 30 bears S 52°18'20"E, 834.1 feet.

I hereby certify that this plat was prepared from an actual survey made on the ground, and meets or exceeds all requirements for land surveys, as specified by the State of New Mexico.

Earl Foote

Earl Foote
Registered Professional Surveyor
New Mexico Certificate No. 8278



DAGGER DRAW 30SE COM WELL #16 ELECTRIC LINE

CONOCO, INC.

Proposed Electric Line in
Sections 30 and 31
T-19-S, R-25-E, N.M.P.M.
Eddy County, New Mexico

WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 2/2/94	Date: 2/14/94	Scale: 1" = 1000'
WTC No. 43631	Drawn by: R.S.	Sheet 1 of 1

EXHIBIT C.3

STANDARD RIG LAYOUT

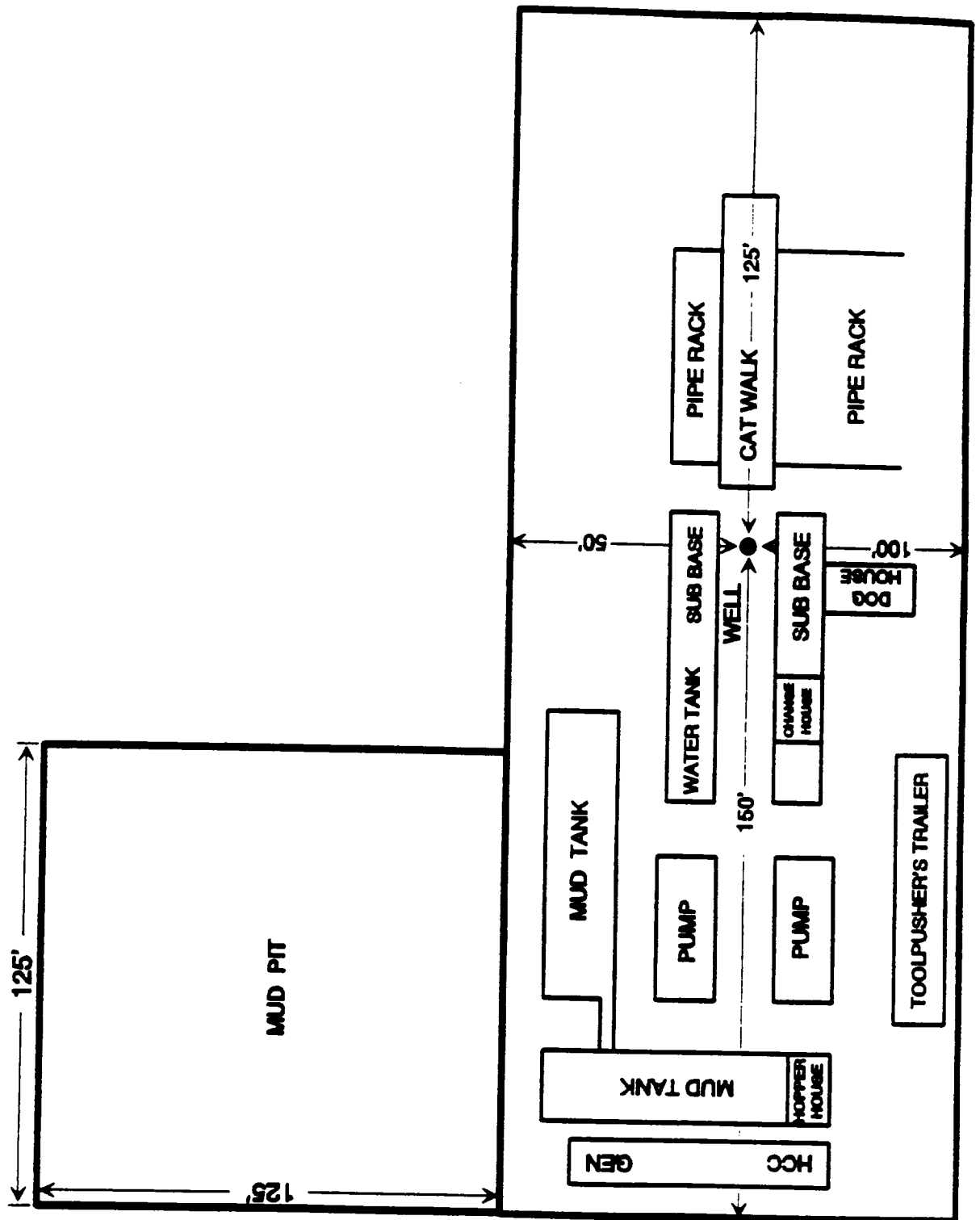
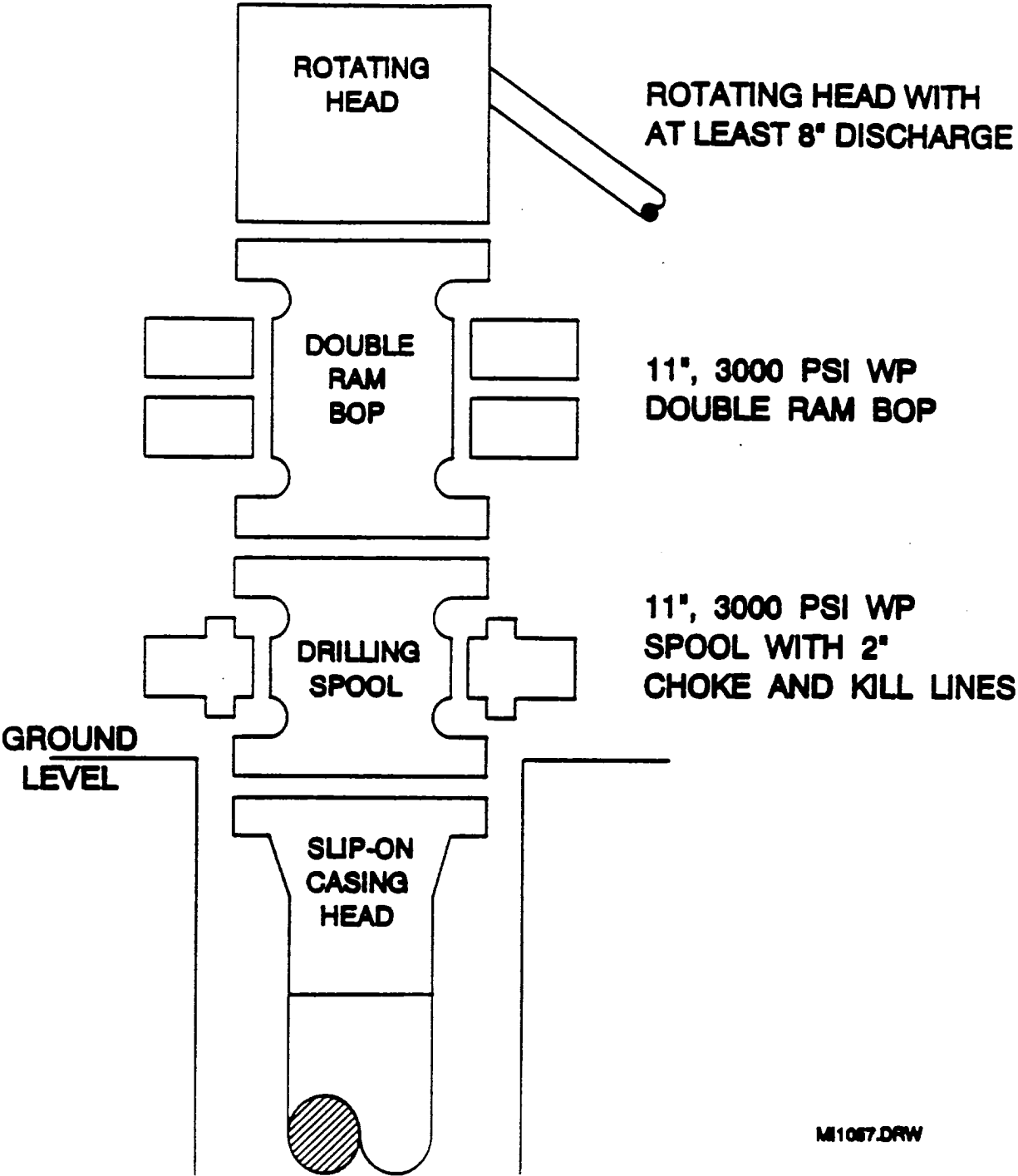
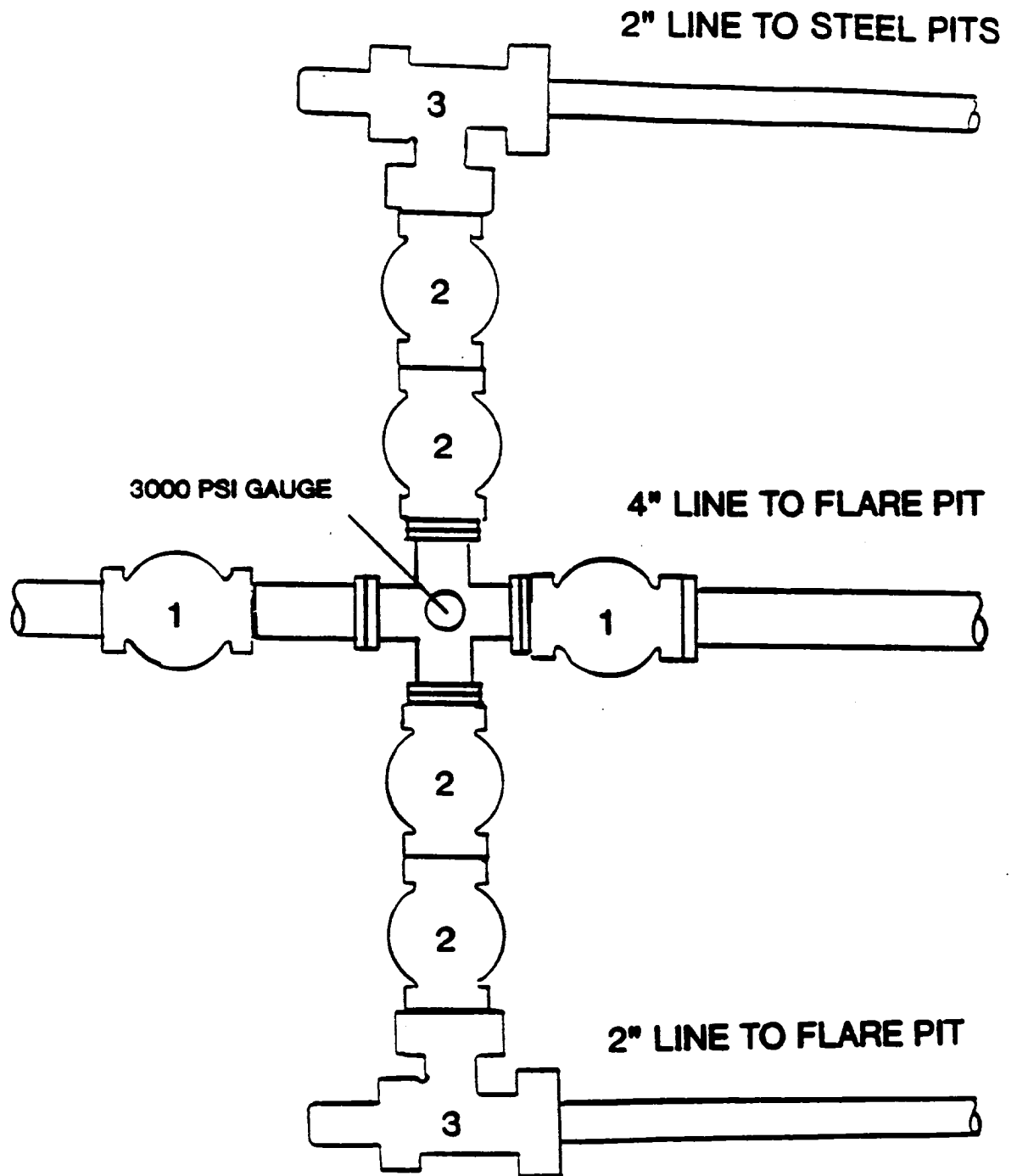


EXHIBIT D

BOP SPECIFICATIONS



CHOKE MANIFOLD DIAGRAM



- 1 4-1/16" GATE VALVE
- 2 2" GATE VALVE
- 3 2" CHOKE

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 (H₂S)
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 H₂S on metal components in the system, especially high tensile strength tubulars are to be used.
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. H₂S 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 H₂S 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
- e. flare line and means of ignition

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 H₂S circulated to surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers when appropriate will minimize hazards when penetrating H₂S bearing zones.

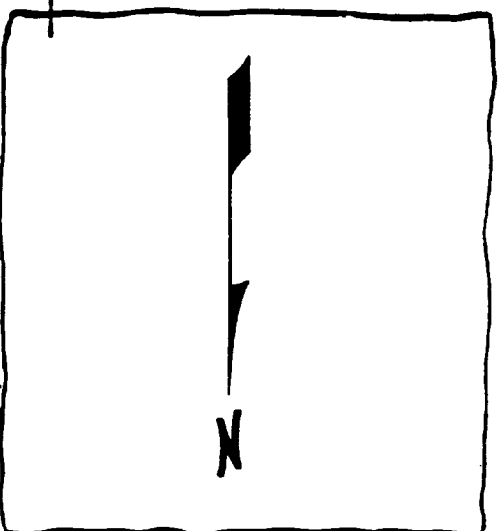
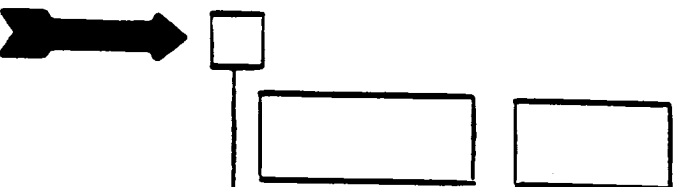
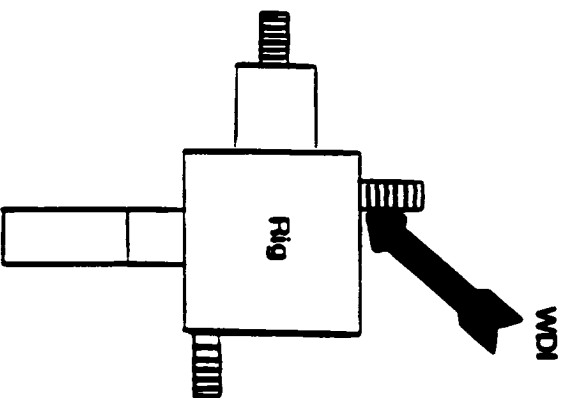
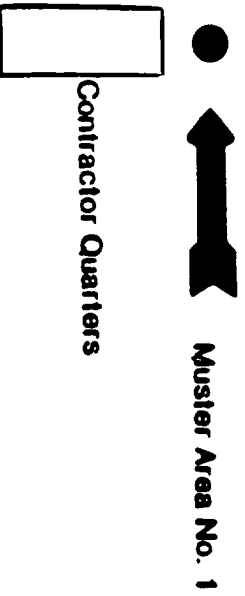
D. Drill Stem Tests

There are no drill stem tests proposed for this well.

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



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. 2
WDI

