

(July 1989)

(formerly 9-331C)

UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

CONTACT RECORDING
OFFICE FOR NU...
OF COPIES REQU...
(Other instructions on
reverse side)

BLM Roswell District
Modified Form No.
NM060-3160-2

5. LEASE DESIGNATION AND SERIAL NO.

NM-58024

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

'DD' -25- FEDERAL

9. WELL NO.

3

10. FIELD AND POOL, OR WILDCAT

DAGGER DRAW UP. PENN. N.

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

SEC. 25, T-19-S, R-24-E

12. COUNTY OR PARISH

EDDY

13. STATE

NM

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

TEXACO EXPLORATION AND PRODUCTION INC. ✓

3a. AREA CODE & PHONE NO.

(915) 688-4620

3. ADDRESS OF OPERATOR

P. O. Box 3109, Midland, Texas 79702

RECEIVED

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

At surface

130' FNL & 660' FEL, UNIT LETTER: A

At proposed prod. zone

SAME

JAN 3 1 1992

O. C. D.

ARTESIA OFFICE

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

16 MILES SOUTHWEST OF ARTESIA, NEW MEXICO

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

130'

16. NO. OF ACRES IN LEASE

160

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.

1851'

19. PROPOSED DEPTH

8000'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show Whether DF, RT, GR, ETC.)

GR-3580'

22. APPROX. DATE WORK WILL START *

JANUARY 16, 1992

23.

PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	13 3/8	48#	H-40	PE	40'	REDIMIX
12 1/4	9 5/8	36#	J-55	LT&C	1300' CIRCULATE	500 SACKS
8 3/4	7	23# & 26#	J-55	LT&C	8000' (see steps)	1450 SACKS

See Attached justification. (335)

CEMENTING PROGRAM: CONDUCTOR - REDIMIX.

SURFACE CASING - 500 SACKS CLASS H w/ 2% CaCl₂ (15.6ppg, 1.19f3/s, 5.2gw/s).

PRODUCTION CASING - 1st STAGE: 500 SACKS 35/65 POZ CLASS H w/ 6% GEL, 5% SALT & 1/4# FLOCELE (12.

8ppg, 1.87f3/s, 9.9gw/s). F/B 250 SACKS CLASS H w/ 1% CaCl₂ (15.6ppg, 1.19f3/s, 5.2gw/s).

DV TOOL @ 4500' - 2nd STG: 700 SACKS 35/65 POZ CLASS H w/ 6% GEL, 5% SALT, & 1/4# FLOCELE (12.8ppg, 1.87f3/s, 9.9gw/s).

THERE ARE NO OTHER OPERATORS IN THIS QUARTER QUARTER SECTION.

TEXACO REQUESTS A VARIANCE FROM ORDER No. 2 REQUIRING A REMOTE CONTROL UNIT FOR A 3M BOP, WE
REQUEST SUBSTITUTING A ROTATING HEAD FOR THE ANNULAR PREVENTER. WE WILL INSTALL TWO OUTSIDE CHOKE
LINES TO A MUD/GAS SEPERATOR IN LIEU OF RUNNING THE LINES TO A PIT AND THE INSIDE BLEED LINE WILL
TERMINATE AT THE MUD/GAS SEPERATOR IN LIEU OF RUNNING TO THE PIT.

Part ID-1
2-7-92

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

C.P. Bashem / cwh

TITLE

DRILLING OPERATIONS MANAGER

DATE

12-10-91

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

BRIAN BASHAM

DATE

1-30-92

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO

GENERAL REQUIREMENTS AND

SPECIAL STIPULATIONS

*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 any false,
fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

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

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 Texaco Producing Inc.			Lease "DD" Federal 25		Well No. 3
Unit Letter A	Section 25	Township 19-South	Range 24-East	County Eddy	
Actual Footage Location of Well: 130 feet from the North line and 660 feet from the East line					
Ground level Elev. 3580	Producing Formation Cisco-Canyon	Pool Dagger Draw Upper Penn., N.			Dedicated Acreage: 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

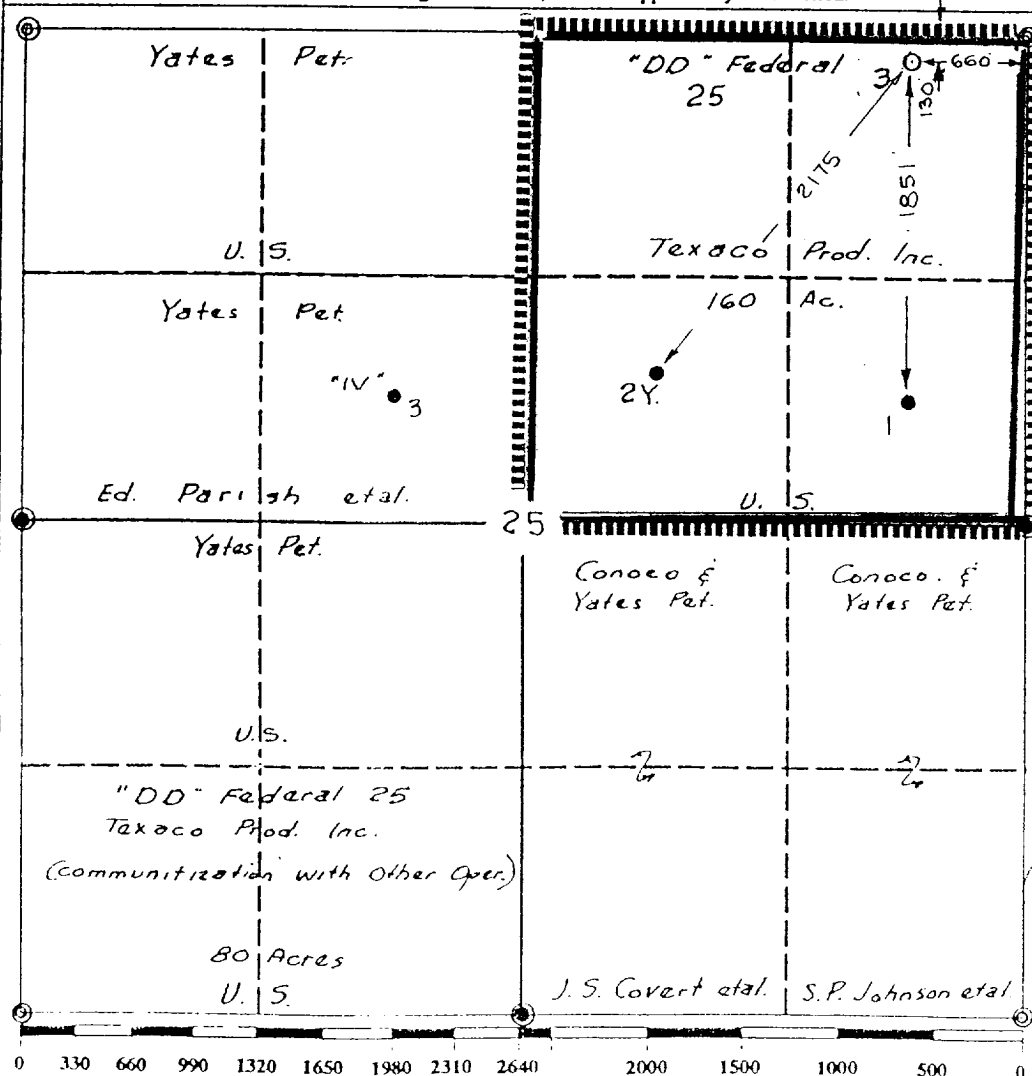
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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

Royce D. Mariott

Printed Name

Royce D. Mariott

Position

Division Surveyor

Company

Texaco Producing Inc.

Date

October 28, 1991

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

October 17, 1991

Signature & Seal of
Professional Surveyor

John S. Piper

Certificate No.

254 John S. Piper

Sheet of

● = Fd. 1" 1. Pipe w/ G.L.O. B.C. @ 1/4" = ● = Fd. 2" 1. Pipe w/ G.L.O. B.C. @ Sec. = ○ = Staked Loc. = Producing Well.

ANTICIPATED WATER, OIL, GAS AND MINERAL
BEARING FORMATIONS

Lease: "DD" -25- Federal Well No: 3
Location: 130' FNL, 660' FEL, Sec. 25, T-19-S, R-24-E
County: Eddy State: New Mexico Elevation: GR-3580'
Proposed TD: 8000'

Formation Tops

<u>Depth</u>	<u>Formation</u>	<u>Oil</u>	<u>Gas</u>	<u>Water</u>	<u>Lithology</u>
0-522'	Queen, Seven Rv.				Sand, Dolo.
522'	San Andres				Dolomite
1977'	Glorieta				Dolomite
2212'	Yeso				Dolomite
4097'	Abo				Dolomite
4289'	Abo Reef				Dolomite
5347'	Wolfcamp	X			Limestone
7532'	Canyon	X			Limest., Dolo.

Geologic Description

The surface geology of this area consists of a thin veil of Quaternary age alluvium with outcrops of Permian Queen-Seven Rivers. Vegetation consists mainly of scrub oak, mesquite and range grasses.

There is no salt section in this area.

No drill stem tests will be conducted. No cores will be taken.

No abnormal pressures or temperatures are anticipated to be encountered in this well. H₂S is present in the Canyon Pay. GR-CAL-CNL-LDT, GR-CAL-DLL-MSFL, CBIL and GR-BHC-SONIC surveys will be run.

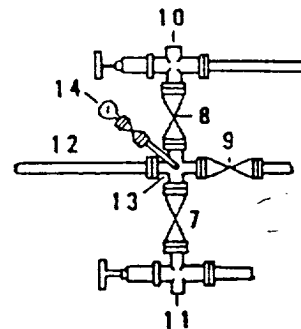
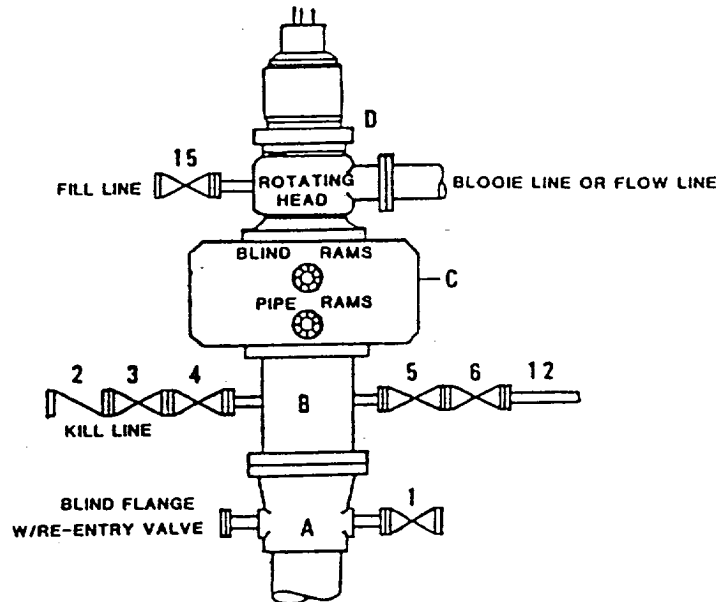
Mud Program

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>
0 -1300'	Fresh Water	8.4	28
1300'-8000'	Cut Brine	8.4-9.0	29
@ TD if hole conditions dictate	Gel/Drispac	9.0	34

Blowout preventer will be installed after surface casing is set. BOP will be tested each time it is installed on a casing string and operated at least once each 24-hour period during drilling.

**DRILLING CONTROL
CONDITION II-B 3000 WP
FOR AIR DRILLING OR
WHERE NITROGEN OR AIR BLOWS ARE EXPECTED**

H₂S TRIM REQUIRED
YES _____ NO _____



DRILLING CONTROL

MATERIAL LIST - CONDITION II - B

- | | |
|------------|---|
| A | Texaco Wellhead |
| B | 3000# W.P. drilling spool with a 2" minimum flanged outlet for kill line and 3" minimum flanged outlet for choke line. |
| C | 3000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 3000# W.P. control lines (where sub-structure height is adequate, 2 - 3000# W.P. single ram type preventers may be utilized). |
| D | Rotating Head with fill up outlet and extended Blooe Line. |
| 1,3,4,7,8, | 2" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve. |
| 2 | 2" minimum 3000# W.P. back pressure valve. |
| 5,6,9 | 3" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve. |
| 12 | 3" minimum schedule 80, Grade "B", seamless line pipe. |
| 13 | 2" minimum x 3" minimum 3000# W.P. flanged cross. |
| 10,11 | 2" minimum 3000# W.P. adjustable choke bodies. |
| 14 | Cameron Mud Gauge or equivalent (location optional in choke line). |
| 15 | 2" minimum 3000# W.P. flanged or threaded full opening steel gate valve, or Halliburton Lo Torc Plug valve. |



TEXACO, INC.
MIDLAND DIVISION
MIDLAND, TEXAS



SCALE	DATE	EST. NO.	DRG. NO.
DRAWN BY:			
CHECKED BY:			
APPROVED BY:			

EXHIBIT C

SURFACE USE AND OPERATIONS PLAN
FOR
TEXACO PRODUCING, INC.

"DD" FEDERAL 25 No. 3

130 FNL & 660 FEL SECTION 25,

TWP. 19 SOUTH, RANGE 24 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO

LOCATED: 16 miles Southwest of Artesia, New Mexico

FEDERAL LEASE NUMBER: NM 58024

LEASE ISSUED: Lease is in a producing status

ACRES IN LEASE: 160 Acres

RECORD LESSEE: TEXACO EXPLORATION AND PRODUCTION Inc.

SURFACE OWNERSHIP: USA

GRAZING PERMITTEE: Harold Houghtling
P.O. Box 234
Artesia, New Mexico 88210
(505) 746-4435

POOL: Cisco-Canyon (Dagger Draw Upper Penn., North)

POOL RULES: Field Rules are for no wells to be located closer than 330' to any quarter-quarter section, to be 660' from the outer lease lines, and 1320' from the nearest well. Proration Unit for this pay is established at 160 acres. (Permit for a non-standart location is being requested)

EXHIBITS: A. Access Road and Facilities Map

B. Drilling Rig Layout Diagram

C. Well Location and Acreage Dedication Plat

1. EXISTING ACCESS ROADS

A. Exhibit "A" in a portion of a 7.5 minute U.S.G.S. topographic map showing the proposed well site and the existing roads in the area. Point "A" is the junction of the existing resource road with Eddy County Road No. 29 within the subject lease, being 16 miles Southerly on U.S. Highway 285 from Artesia or 20 miles Northerly of Carlsbad, 6.1 miles Westerly on Eddy County Road No. 23, and 2.2 miles North and Northwesterly on Eddy County Road No. 23.

From Point "A" an existing Texaco Access Road (shown in Red on Exhibit "A") will be utilized Westerly for 0.1 miles to Point "B". From this point a new resource road will be constructed as described below.

2. PLANNED RESOURCE ROAD

A. Length and Width: From Point "B" as shown on Exhibit "A", a new 14 foot wide Resource Road will be constructed 1000 feet Southerly (Shown in Blue on Exhibit "B") with access at the Northeast corner of the proposed well pad, as shown on Exhibits "A" and "B".

B. Surfacing Material: Caliche material will be used to surface the proposed road. It will be watered, compacted, and graded.

C. Maximum Grade: An approximate grade of one percent will be encountered descending from Point "B" to the proposed well pad.

D. Turnouts: None required.

E. Drainage Design: The new road will be crowned at the center to direct drainage to ditches on both sides of the roadway with turnout ditches to be constructed as required.

F. Culverts: None required.

G. Cuts and Fills: Only a slight amount of leveling will be required for the proposed road.

H. Gates and Cattle Guards: None Required.

3. LOCATION OF EXISTING WELLS

A. Existing wells on the lease and in the immediate area are shown on Exhibit "A" and "C".

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

A. The oil, gas, and/or water that this well will produce will be transported by a 2 or 2 1/2" steel surface flowline (shown in Green on Exhibit "A") to the "DD" Federal 24 Battery as shown on Exhibit "A".

B. An electric line will be built to provide electrical power for producing this well from the existing North-South electric line approximate 200 feet East of the proposed location. The route is 250 feet in length in a Westerly direction to the South side of the proposed location as shown on Exhibit "A".

5. LOCATION AND TYPE OF WATER SUPPLY

A. It is not contemplated that a water well will be drilled. Water necessary for drilling operations will be purchased and trucked to the well site or will be transported to the well site by a temporary pipeline laid on the ground alongside existing and proposed roads.

6. SOURCE OF CONSTRUCTION MATERIALS

A. Caliche needed for the well pad will be taken from an existing pit in the SW/4 of the SW/4 of Section 17, T-19-S, R-24-E, Eddy County, New Mexico. It will be transported to the proposed road and well site by the existing access and resource roads.

7. METHOD OF HANDLING WASTE DISPOSAL

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

C. Water produced during tests will be disposed of in the drilling pits.

D. Oil produced during tests will be stored in test tanks until sold.

E. Trash, waste paper, garbage and junk will be placed in a trash bin located on the drill site pad. It will be transported to an approved landfill for disposal within 30 days after completion of drilling and/or completion of operations. All waste material will be contained to prevent scattering by the wind.

8. ANCILLARY FACILITIES

A. None required.

9. WELL SITE LAYOUT

A. Exhibit "B" shows the relative location and dimensions of the well pad, mud pits, and trash bin, and the location of the major rig components.

B. Cut and Fill requirements will be minor, but clearing and leveling of the well site will be necessary.

10. PLANS FOR RECLAMATION OF THE SURFACE

A. After completion of drilling and/or completion of operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until the pits are dry.

C. After abandonment, all equipment, trash and junk will be removed and the well site will be cleaned. Any special reclamation and/or special revegetation requirements of the Surface Management Agency will be complied with and will be accomplished as rapidly as possible.

11. OTHER INFORMATION

A. Topography: The land surface in the area of the well is relatively level. Regionally, the land slopes to the South with an average slopes of less than one to two percent.

B. Soil: Top soil at the well site is a shallow sandy loam.

C. Flora and Fauna: The vegetation cover is moderate, it includes range grasses, weeds, and mesquite bushes. Wildlife in the area is that typical of a semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, hawks, dove, quail and other small birds.

D. Ponds and Streams: The Seven Rivers is a intermittent drainage located approximately 300 feet South Southwesterly of the location. The location is 12 feet higher than the flowline of the drain and 3 feet higher than the adjacent top of bank.

E. Residences and Other Structures: There are no occupied dwellings or other structures within 3/4 mile of the well site. (Note the Parrish Ranch House as shown on Exhibit "A" is approximately 1 mile Northeasterly of the proposed location.

F. Archaeological, Historical, or other Cultural Sites: None were observed in the proposed construction area. Some artifacts and old dwelling sites were found Southeasterly of the proposed well site.

G. Land Use: Grazing, oil and gas production, and wildlife habitat.

H. Surface Ownership: Federal

12. OPERATOR'S REPRESENTATIVE

C. P. Basham
Drilling Superintendent
Texaco Exploration and Production Inc.
P. O. Box 3109
Midland, Texas 79701
Office Phone: (915) 688-4620

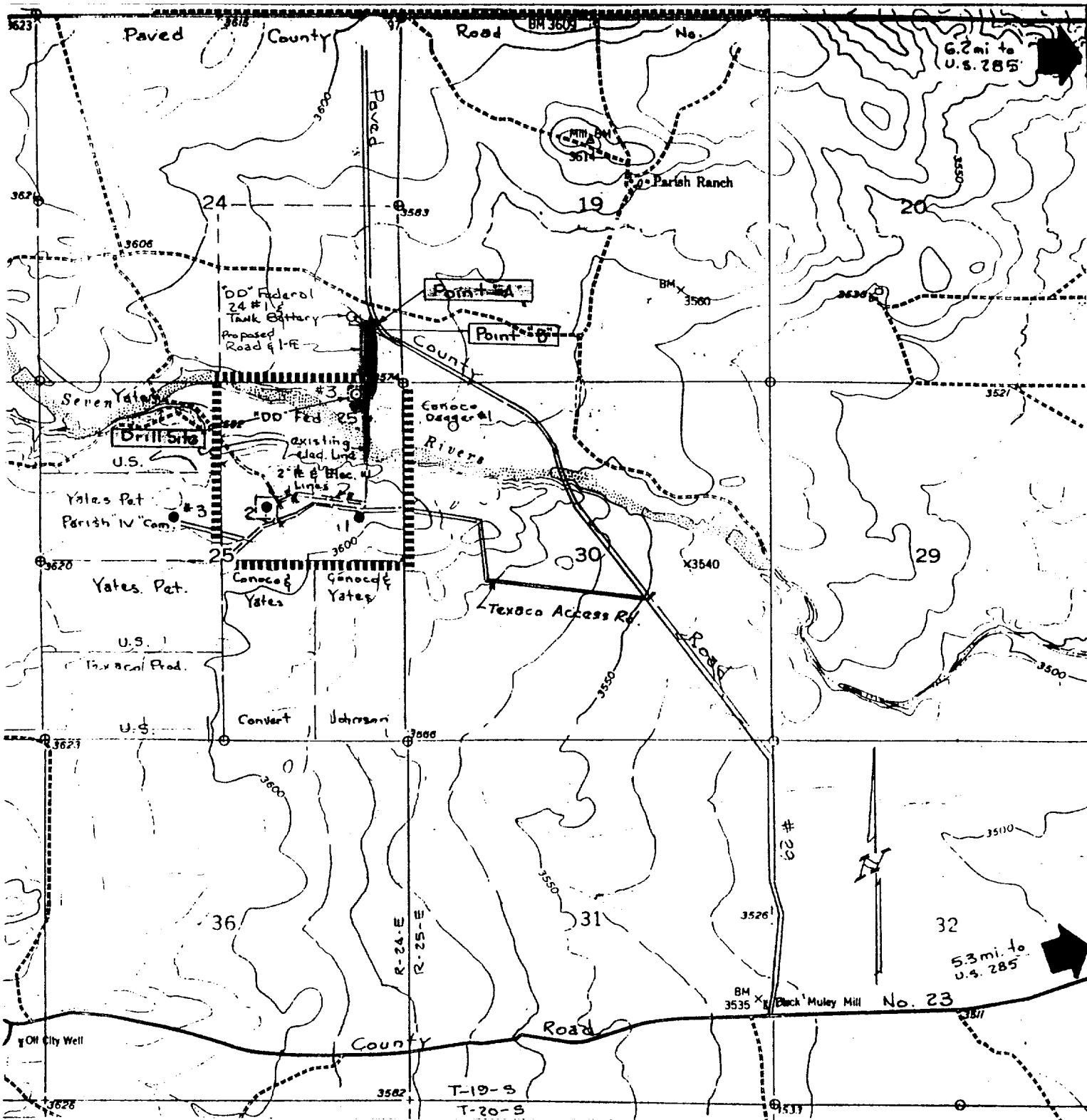
CERTIFICATION

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 statements 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 Texaco Exploration and Production, Inc. and its contractors and sub-contractors 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.

12-10-91
Date

C.P. Basham /cw#
C. P. Basham
Drilling Superintendent
Midland, Texas

Enclosures
.isp

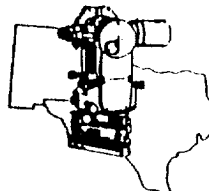


LEGEND

Lease Boundary
 County Roads (Yellow)
 Access Road off lease (Red)
 Resource Road on lease (Blue)
 Proposed 2" Steel Flowline (Green) — # —
 Proposed Electric Line (Orange) — — —
 G.L.C. Iron Pipe with brass cap Found = o

TEXACO PRODUCING INC.

EXHIBIT "A"
 "DD" Federal 25 No. 3
 Sec. 25, T-19-S, R-24-E, NMPM,
 Eddy County, New Mexico



PIPER SURVEYING COMPANY
 P. O. BOX 8432-ATS
 MIDLAND, TEXAS 79711

DRAWN BY: D.E.K.	SCALE: 1" = 2000'
CHECKED BY: J.S.P.	FILE NO.
DATE: 10/18/91	SHEET 6 OF 8

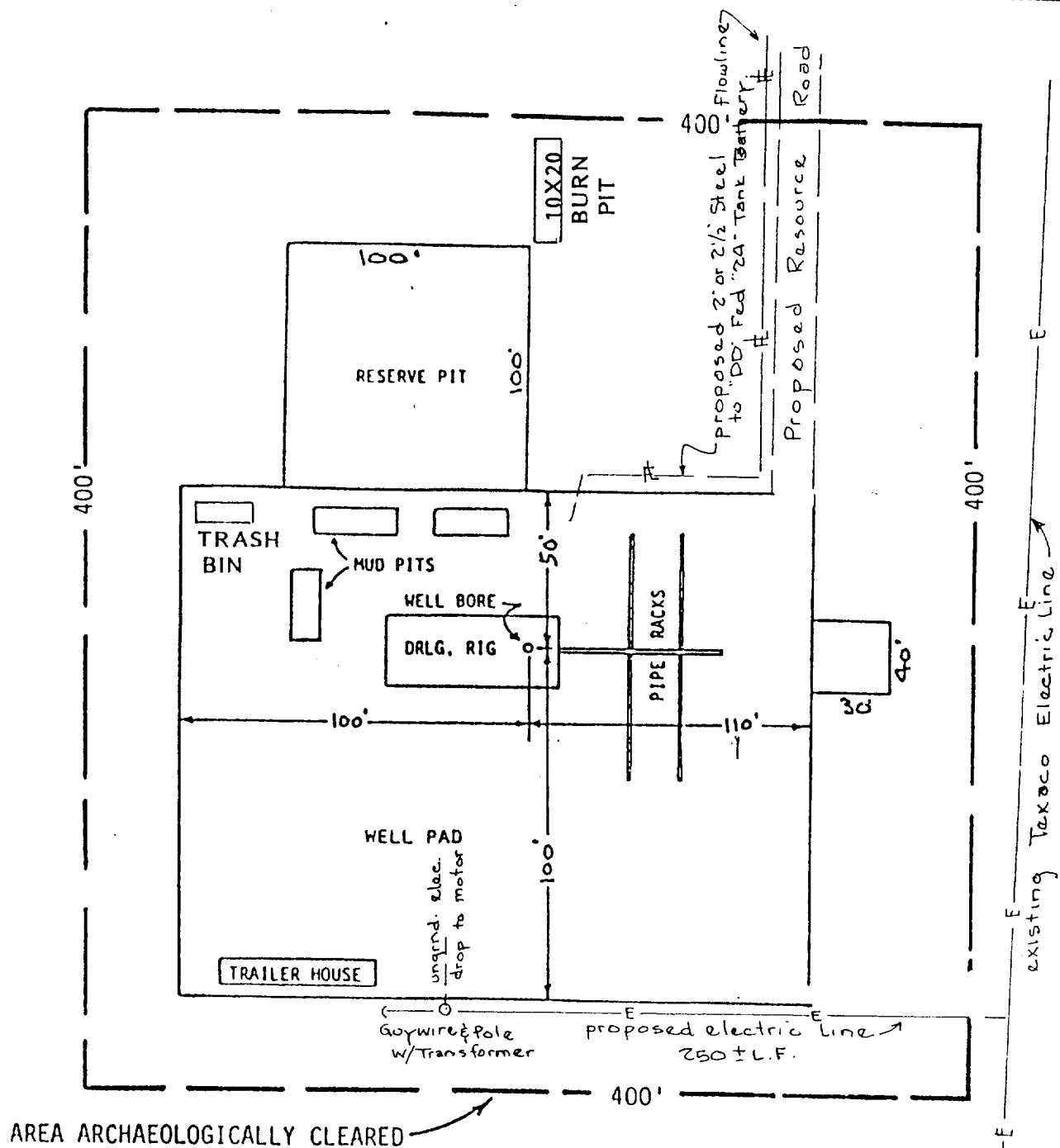


EXHIBIT "B"
 TEXACO EXPLORATION AND PRODCUTION INC.
 "DD" FEDERAL "25" No. 3
 130 FNL & 660 FEL Section 25,
 T-19-S, R-24-E, N.M.P.M.,
 Eddy County, New Mexico

J.S. Piper 11/26/91

Scale: None

Sheet 7 of 8

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

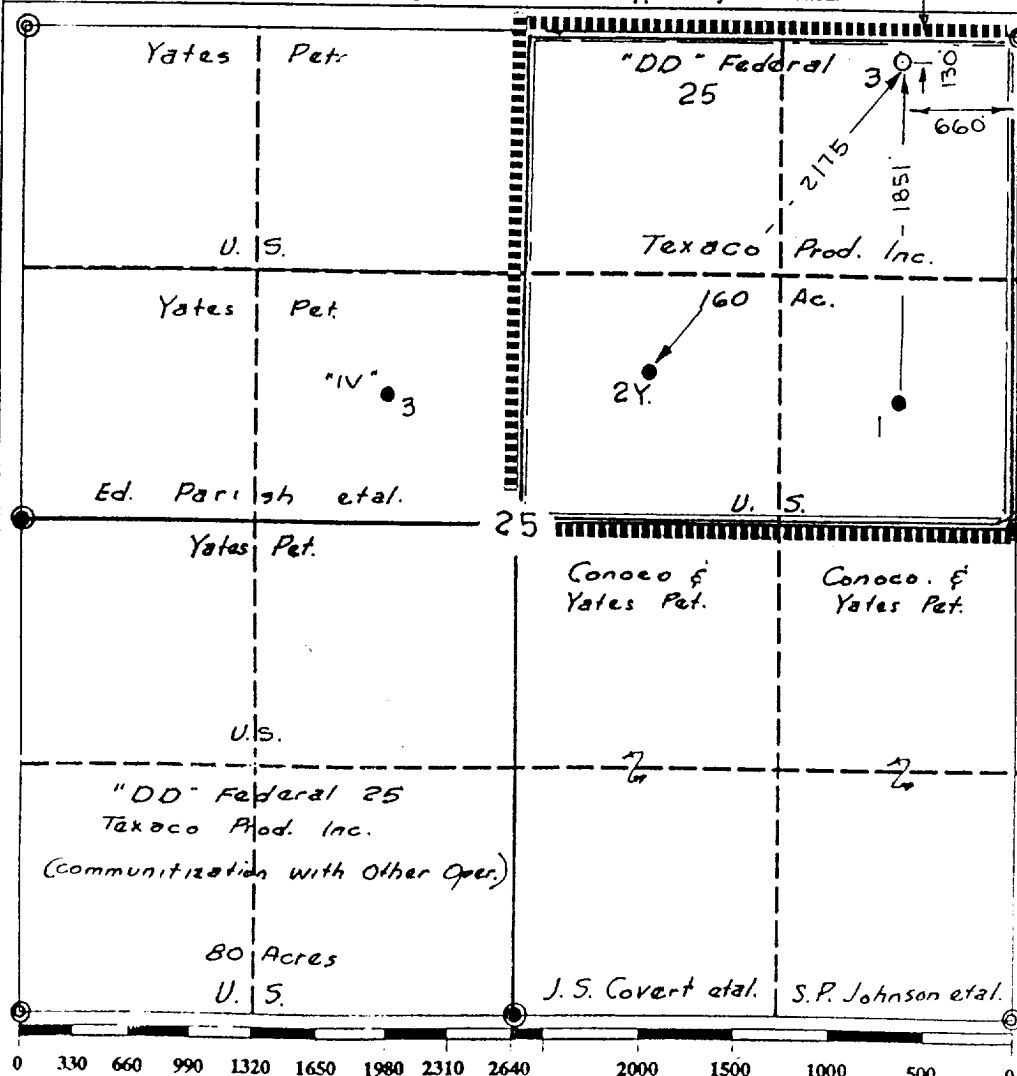
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Texaco Producing Inc.			Lease "DD" Federal 25		Well No. 3
Unit Letter A	Section 25	Township 19-South	Range 24-East	County Eddy	
Actual Footage Location of Well: 130 feet from the North line and 660 feet from the East line					
Ground level Elev. 3580	Producing Formation Cisco-Canyon		Pool Dagger Draw Upper Penn., N	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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

Printed Name

Royce D. Mariott

Position

Division Surveyor

Company

Texaco Producing Inc.

Date

Nov. 26, 1991

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

October 17, 1991

Signature & Seal of
Professional Surveyor

John S. Piper

Certificate No.

7254 John S. Piper

Sheet 8 of 8



Texaco Exploration and Production Inc.
Midland Production Division

TEXACO INC.
2000 WEST 10TH STREET
MIDLAND, TEXAS 79701

RECEIVED

JAN 29 10 29 AM '92
CARLSBAD AREA
FBI

January 24, 1992

Mr. Shannon Shaw
Bureau of Land Management
P. O. Box 1778
Carlsbad, New Mexico 88220

Dear Mr. Shaw,

In reference to our conversation concerning the surface casing plan of the proposed Texaco DD Federal "25" Well No. 3, I have spoken to Mr. Glenn Brim, District Manager of the State Engineer's office in Roswell, NM.

I informed Mr. Brim that Texaco plans to drill a Dagger Draw-Upper Pennsylvanian oil well in Section 25, Township 19 South, Range 24 East, NMPM, Eddy County, New Mexico. Further, that we are planning to set 9-5/8", 36#, J-55 surface casing at a depth of 1300' in a 12-1/4" drilled hole.

Mr. Brim confirmed the decision we have previously received from Mr. Ken Fresquez of his office. Mr. Brim specifically stated that the running of 9-5/8" surface casing in a 12-1/4" hole meets the requirements of the State Engineer's Rules and Regulations No. 4-15.2. concerning hole diameter.

Since our casing plan meets all of the published regulations of the BLM and the NMOCD as well as the State Engineer's rule to which you have deferred, your prompt approval will be most appreciated.

Sincerely,

Mitch Mamoulides
Drilling Engineer

file
chrono

Attachment

MJM



Texaco Exploration and Production Inc
Midland Producing Division

P.O. Box 3109
Midland TX 79702-3109

RECEIVED

JAN 29 10 29 AM '92
CAG
AREA
1992
AS

January 24, 1992

Mr. Glenn Brim
District Manager
New Mexico State Engineer
1900 West 2nd Street
Roswell, NM 88201-1712

Dear Mr. Brim,

Texaco plans to drill a Dagger Draw-Upper Pennsylvanian oil well in Section 25, Township 19 South, Range 24 East, NMPM, Eddy County, New Mexico. We are planning to set 9-5/8", 36#, J-55 surface casing at a depth of 1300' in a 12-1/4" drilled hole.

In confirmation of our conversation earlier today, this casing plan meets the "Hole Diameter" requirements of your office, since the 12-1/4" drilled hole is more than 2 inches larger than the 9-5/8" casing. Reference is made to the State Engineer's Rules and Regulations No. 4-15.2.

As we discussed, the BLM representative who is reviewing our application requested me to make sure that our plan met your requirements. Therefore, I will copy this letter to him so that he will know we have discussed this issue and that our plan does meet the "Hole Diameter" provision.

Thank you very much for your assistance in this matter.

Sincerely,

Mitch Mamoulides
Drilling Engineer

file
chrono

MJM

would allow the commingling of water from the artesian formation with water in overlying formations.

4-15.1. CASING AND COUPLING--API TABLE OF SPECIFICATIONS. Only threaded casing shall be used. Casings and couplings shall meet minimum American Petroleum Institute (API) specifications for the following sizes:

Outside Diameter Inches	Weight With Couplings Lbs./Ft.	Wall Thickness Inches	O.D. Inches	Coupling Length Inches	Threads Per Inch	Grade Of Casing
4 1/2	9.50	.205	5.000	5	8	F-25
5 1/2	13.00	.228	6.050	6 3/4	8	F-25
6	15.00	.238	6.625	7	8	F-25
6 5/8	17.00	.245	7.390	7 1/4	8	F-25
7	17.00	.231	7.656	7 1/4	8	F-25
7 5/8	20.00	.250	8.500	7 1/2	8	F-25
8 5/8	24.00	.264	9.625	7 3/4	8	F-25
9 5/8	29.30	.281	10.625	7 3/4	8	F-25
10 3/4	32.75	.279	11.750	8	8	F-25
11 3/4	38.00	.300	12.750	8	8	F-25
13 3/8	48.00	.330	14.375	8	8	F-25

If casing length exceeds one thousand (1,000) feet, H-grade or better shall be used for thirteen and three-eighths (13 3/8) inch casing.

4-15.2. HOLE DIAMETER. In all cases the diameter of the drilled hole shall be at least two (2) inches greater than the outside diameter of the casing.

4-16. CASING--CEMENTING--TESTING. The following specifications shall govern casing, cementing, and testing: the casing shoe shall be welded to the casing to assure proper position. The casing shall be landed on a suitable casing seat in the confining formation overlying the artesian aquifer formation and sufficient oil well cement shall be used to obtain circulation to the surface. When circulation to the surface is not obtained, cement shall be placed to the surface behind the casing. Additives of pozzolanic nature may be used above the casing shoe but shall not exceed fifty per cent (50%) by volume. The addition of calcium chloride and/or gel is permissible but shall not in any case exceed two per cent (2%) each by weight. A sufficient amount of cement without additives shall be used to allow neat cement to seal the casing shoe and rise a minimum of fifty (50) feet above the shoe between the casing and the hole. Cement shall be allowed to set a minimum of forty eight (48) hours before drilling is resumed. Sealing off of the formations shall be checked by a method approved by the State Engineer or his authorized representative.