

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-045-24294

## 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"/>			5. LEASE DESIGNATION AND SERIAL NO. NM 0468126	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Tenneco Oil Company			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 720 S. Colorado Blvd., Denver, CO 80222			8. FARM OR LEASE NAME Callow	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1670' FNL, 1120' FEL At proposed prod. zone			9. WELL NO. 11E 9E	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 2 miles South of Farmington			10. FIELD AND POOL, OR WILDCAT Basin Dakota	
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 28, T29, R13W	
16. NO. OF ACRES IN LEASE 1560.00			12. COUNTY OR PARISH San Juan	
17. NO. OF ACRES ASSIGNED TO THIS WELL E 320.00			13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5340 GR			22. APPROX. DATE WORK WILL START* ASAP	

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8" new	24# K-55	± 300'	Circulate to surface
7 7/8"	4 1/2" new	10.5 K-55	± 5870'	Cement in 2 stages
				Circulate to Surface

SEE ATTACHED

No abnormal temperatures, pressures or geologic hazards are expected.

If well is non-productive, plug and abandon per USGS/BLM regulations.

RECEIVED  
JAN 17 1980  
U. S. GEOLOGICAL SURVEY  
FARMINGTON, N. M.

THE GAS IS DEDICATED



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

M. L. FREEMAN

TITLE STAFF PRODUCTION ANALYST

DATE January 14, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED  
AS AMENDED  
DATEAPR 1 1980  
James F. Sims  
DISTRICT ENGINEER

\*See Instructions On Reverse Side

All distances must be from the outer boundaries of the Section.

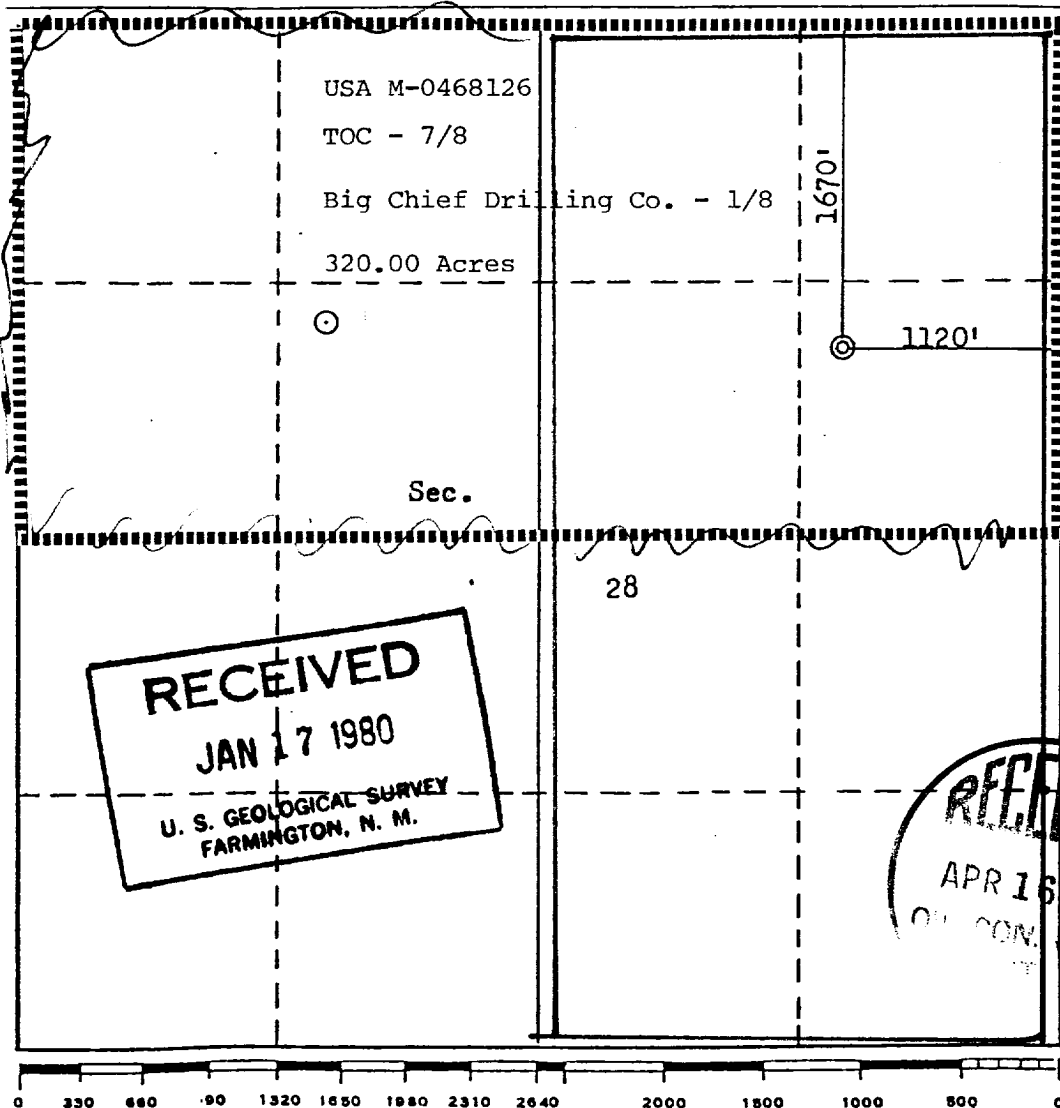
Operator <b>TENNECO OIL COMPANY</b>			Lease <b>CALLOW</b>		Well No. <b>1189E</b>
Unit Letter <b>H</b>	Section <b>28</b>	Township <b>29N</b>	Range <b>13W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1670</b> feet from the <b>North</b> line and <b>1120</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5340</b>	Producing Formation <b>Dakota</b>		Pool <b>Basin Dakota</b>	Dedicated Acreage: <b>320.00</b> 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 interests 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 interests, has been approved by the Commission.



# CERTIFICATION

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

*M. L. Freeman*  
Name

M. L. Freeman

Position

Staff Production Analyst

Company

Tenneco Oil Company

Date

January 14, 1980

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 16 1980 November 15, 1979

Registered Professional Engineer and/or Land Surveyor

*Fred B. Freeman, Jr.*

Certificate No.

3950

TEENECO OIL COMPANY

PROGNOSIS TO DRILL AND COMPLETE

DIVISION: Rocky Mountain

DATE: September 13, 1979

LEASE: Callow

WELL NO.: 11E

LOCATION: 1670' FNL, 1120' FEL  
Sec. 28, T 29N, R 13W  
San Juan County, New Mexico

FIELD: Basin Dakota

ESTIMATED ELEVATION: 5350'

ESTIMATED TOTAL DEPTH: 5870'

PROJECTED HORIZON: Dakota

DRILLING, CASING AND CEMENT PROGRAM:

- (1) MIRURT.
- (2) Drill 12 1/4" hole to  $\pm$  300'. Run 8 5/8" O.D. 24# K-55 ST&C casing to 300'. Cement with sufficient volume to circulate cement to surface.
- (3) WOC minimum of 12 hours. Nipple up BOE. Test BOP, blind and pipe rams, casing and manifold to 600 psi prior to drilling out for 1/2 hour.
- (4) Drill 7 7/8" hole to T.D.
- (5) Run open hole logs as required.
- (6) Run 4 1/2", 10.5#, K-55 ST&C casing. Cement in 2 stages with stage collar  $\pm$  4100'.
- (7) Cement first stage with sufficient volume to raise cement to stage tool. Circulate and WOC 4 hours between stages. Cement 2nd stage with sufficient volume to circulate to surface.
- (8) Set casing slips, cut off 4 1/2" casing. Nipple up well head.
- (9) RD. MORT.

ESTIMATED FORMATION TOPS: *SURFACE Kirtland SHALE*

Pictured Cliffs	1090'	Gas	Mancos	3905'	
Lewis	1260'		Gallup	4806'	Gas/Oil
Cliffhouse	2670'	Gas	Greenhorn	5600'	
Menefee	2780'	Gas	Dakota	5700'	
Point Lookout	3513'	Gas	TD	5870'	

## DRILLING MUD PROGRAM:

- 0 - 250' Native solids. NC-WL, use sufficient viscosity to clean hole and run casing.
- 250 - T.D. Low solids. 15 cc WL, 9.0#/gal. Use sufficient viscosity to clean hole.

## CORING AND TESTING PROGRAM:

NONE ANTICIPATED.

## DEVIATION SURVEYS:

1. Survey surface hole at 100' intervals. Maximum allowable deviation at
2. FROM SURFACE TO TOTAL DEPTH DEVIATION SURVEYS MUST BE TAKEN EVERY 500' OR EACH TRIP WHICHEVER IS FIRST. This may entail running the TOTCO on wireline. Record each survey on the AAODC Drilling Report Sheet. Maximum allowable change in deviation is 1° per 100'.

## SAMPLES:

0 - 5400' 30' Samples  
5400' - TD 10' Samples

## WELL SURVEYS:

Majority of logs will be cased hole. GR Neutron on TDT logs.

Open hole logs will be GR induction.

BOP: 10" 900 series Double Ram Hydraulic with complete shut off and pipe rams.

PREVENTORS MUST BE CHECKED FOR OPERATION EVERY 24 HOURS, AND THE CHECK MUST BE RECORDED ON THE AAODC DRILLING REPORT SHEET.

## REPORTS

Drilling reports for the past 24 hours will include depth, footage, time distribution, activity breakdown, mud properties, bit record, bottom hole assembly, daily and cumulative mud costs, plus any other pertinent information; will be called into Tenneco Oil Company, Denver, Colorado between 7:30 A.M. and 8:00 A.M.

1. 303-758-7130 (office) - Don Barnes  
303-758-7287 - Don Barnes private line - Monday-Friday (before 7:45 A.M.)
2. 303-936-0704 (home) - Don Barnes - weekends and holidays
3. 303-795-0221 (home) - John Owen - if Don Barnes not available

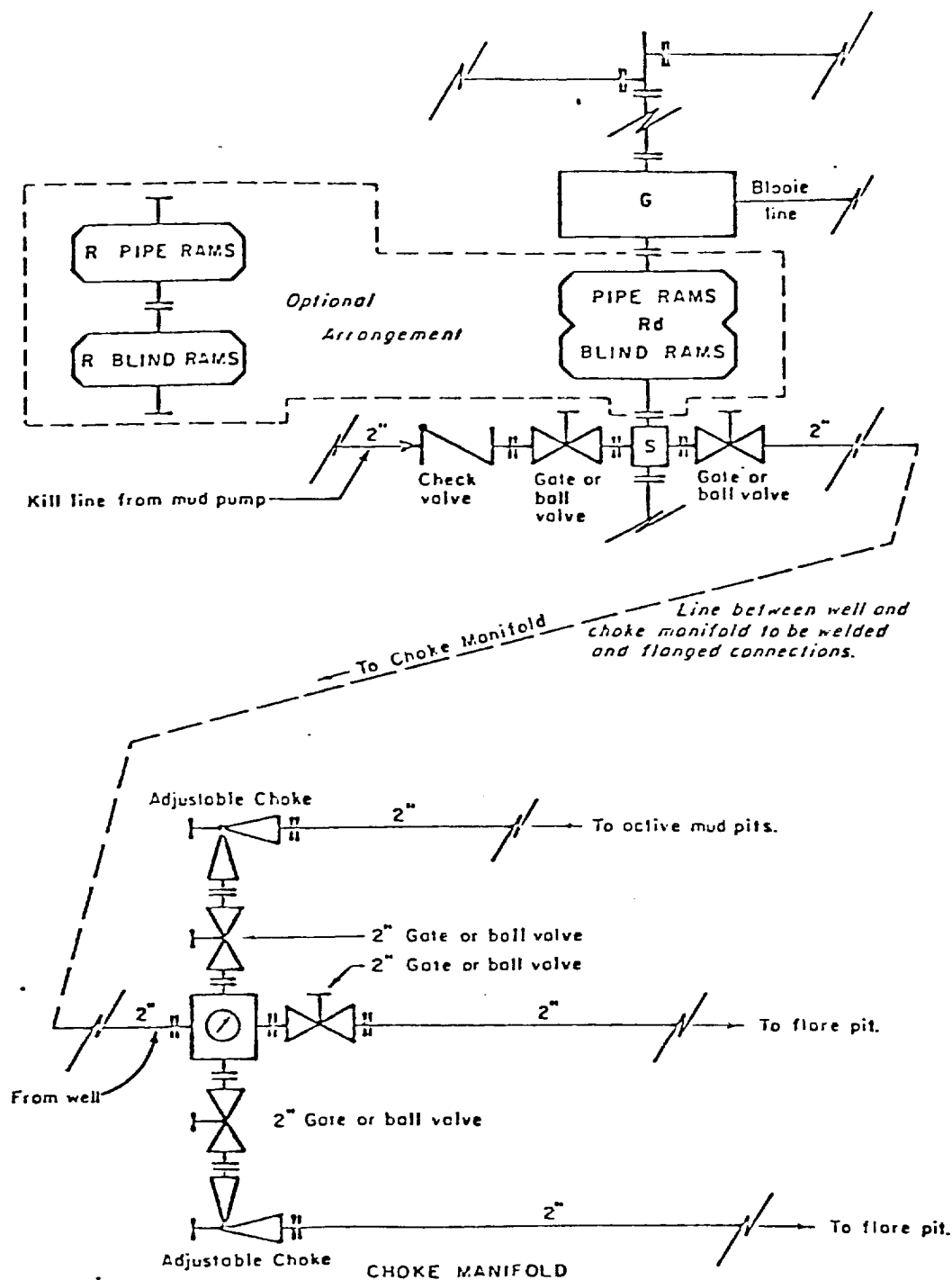
The yellow sheet of the IADC Report to be filled out completely, the original copy of the drilling time recorder, and copies of any invoices from this well signed and received for Tenneco Oil Company will be mailed daily to:

TENNECO OIL COMPANY  
PENTHOUSE  
720 SOUTH COLORADO BOULEVARD  
DENVER, COLORADO 80222

ATTENTION: DRILLING DEPARTMENT

In case of an emergency, notify the following:

1. Mr. Don Barnes, Division Drilling Engineer - 303-936-0704.
2. Mr. John Owen, Project Drilling Engineer - 303-795-0221
3. Mr. Mike Lacey, Division Production Manager - 303-979-0509.



All equipment to be 3,000 psi working pressure except as noted.

- Rd Double ram type preventer with two sets of rams.
- R Single ram type preventer with one set of rams.
- S Drilling spool with side outlet connections for choke and kill lines.
- G Rotating head 150 psi working pressure minimum


#### ARRANGEMENT C

TENNECO OIL COMPANY  
ROCKY MOUNTAIN DIVISION  
REQUIRED MINIMUM  
BLOWOUT PREVENTER AND  
CHOKES MANIFOLD

J. MAGILL 10-26-78 EVI

1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
3. Location of Existing Wells - Please refer to Map No. 2.
4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 1 and No. 2. Map No. 2 shows the existing roads and new proposed access roads. All known production facilities are shown on these two maps.
5. Location and Type of Water Supply - Water for the proposed project will be obtained from a private source.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. Methods of Handling Waste Materials - All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1. will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occurring.

8. Ancillary Facilities - No camps or airstrips will be associated with this project.
9. Wellsite Layout - Please refer to the attached Plat No. 1.
10. Plans for Restoration of the Surface - After completion of the proposed project the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
11. Other Information - The proposed site is located on the South side of the San Juan River 1½ miles East of the City Dump. The soil is sandy, sandy loam supporting pinon, juniper, snakeweed, rabbit brush and yucca. The surface is privately owned with the minerals public.
12. Operator's Representative -  
SEE DRILLING PROGNOSIS
13. Certification - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements mad 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 Tenneco Oil Company Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

  
L. Freeman  
Staff Production Analyst



# TENNECO OIL COMPANY

## CALCULATION SHEET

EXHIBIT

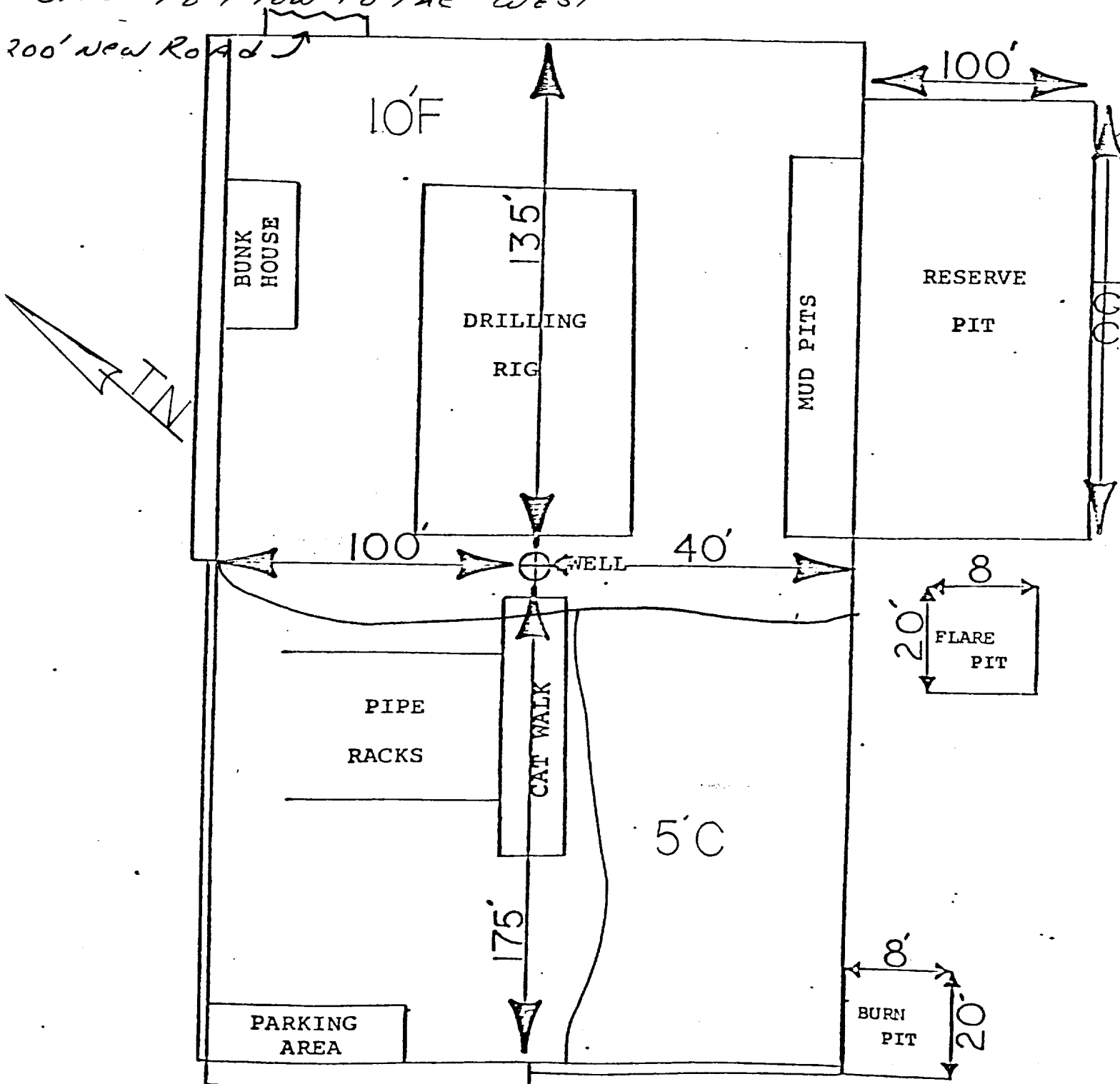
DRILLING WELL SITE LAYOUT *ALLOW 11E*

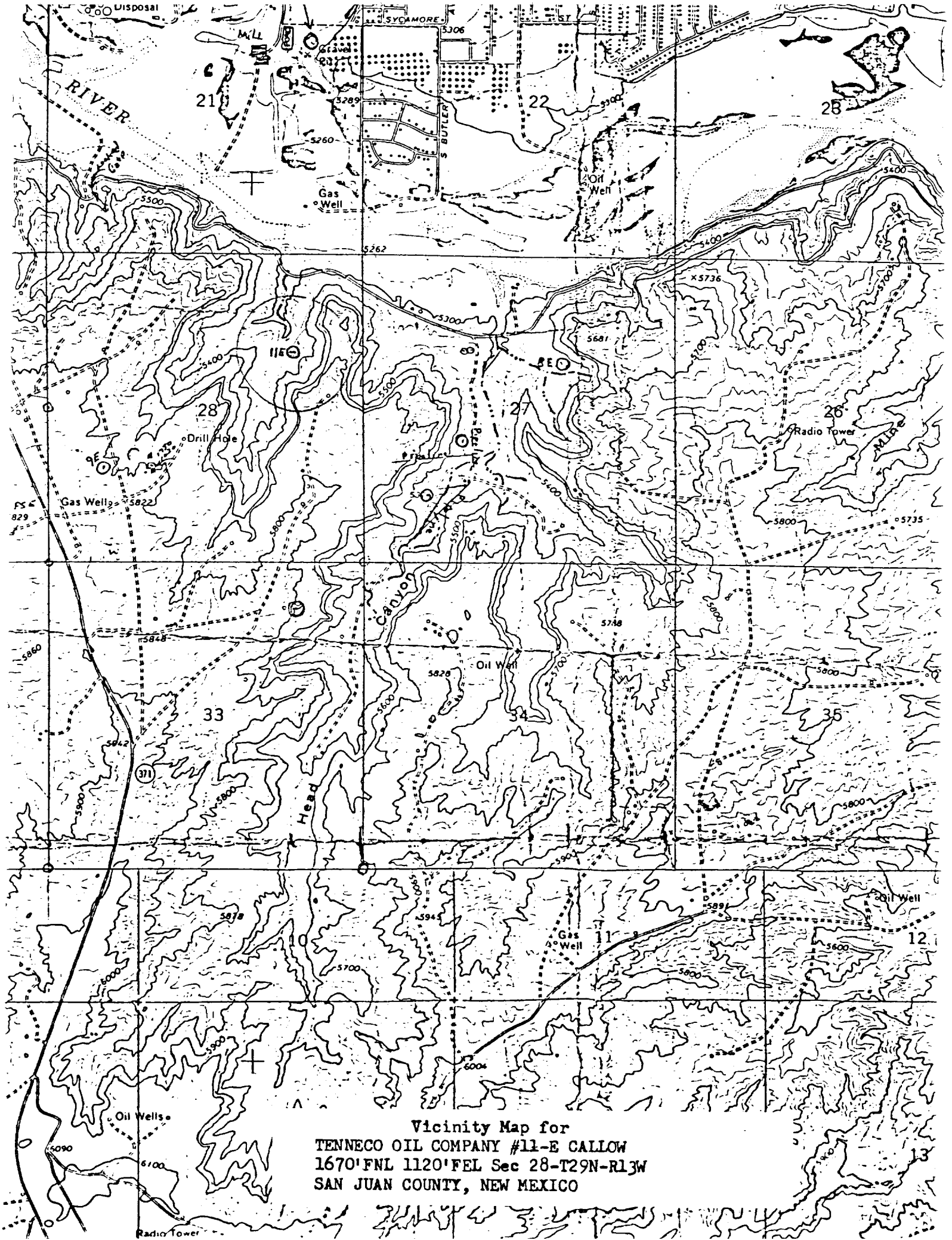
*1670 FNL 1120 FEL SEC 28, T29N, R13W* DATE *1-19-80*

*The Access is to Follow Along TAINUS Slope*

*Place A diversion ditch on the Southeast side of the site to flow to the West*

*200' New Road*





Vicinity Map for  
TENNECO OIL COMPANY #11-E CALLOW  
1670'FNL 1120'FEL Sec 28-T29N-R13W  
SAN JUAN COUNTY, NEW MEXICO

