

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-24295

5. LEASE DESIGNATION AND SERIAL NO.

NM 0468126

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Callow

9. WELL NO.

22 11E

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

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

Sec. 28, T29N, R13W

12. COUNTY OR PARISH 13. STATE

San Juan

NM

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

Tenneco Oil Company

3. ADDRESS OF OPERATOR

720 S. Colorado Blvd., Denver, CO 80222

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

At surface

1620' FSL, 940' FWL

At proposed prod. zone

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

2 miles South of Farmington

10. 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

1560.00

17. NO. OF ACRES ASSIGNED
TO THIS WELL

W 320.00

18. DISTANCE FROM PROPOSED LOCATION*

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

19. PROPOSED DEPTH

6400.00

20. ROTARY OR CABLE TOOLS

Rotary

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

5818 GR

22. APPROX. DATE WORK WILL START*

ASAP

23.

PROPOSED CASING AND CEMENTING PROGRAM

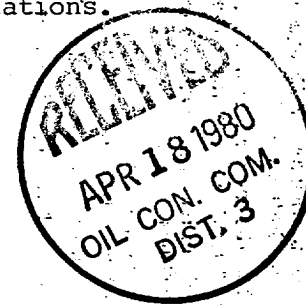
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8" new	24# K-55	+ 300'	Circulate to surface
7 7/8"	4 1/2" new	10.5 K-55	+ 6400'	cement in 2 stages
				circulate to surface

SEE ATTACHED

No abnormal temperatures, pressures or geologic hazards are expected.

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

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

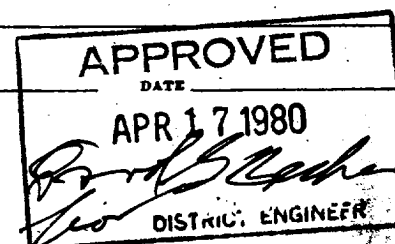
CONDITIONS OF APPROVAL, IF ANY:

ALL WORK MUST BE AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

*See Instructions On Reverse Side

ok 3rd

NMOC



All distances must be from the outer boundaries of the Section

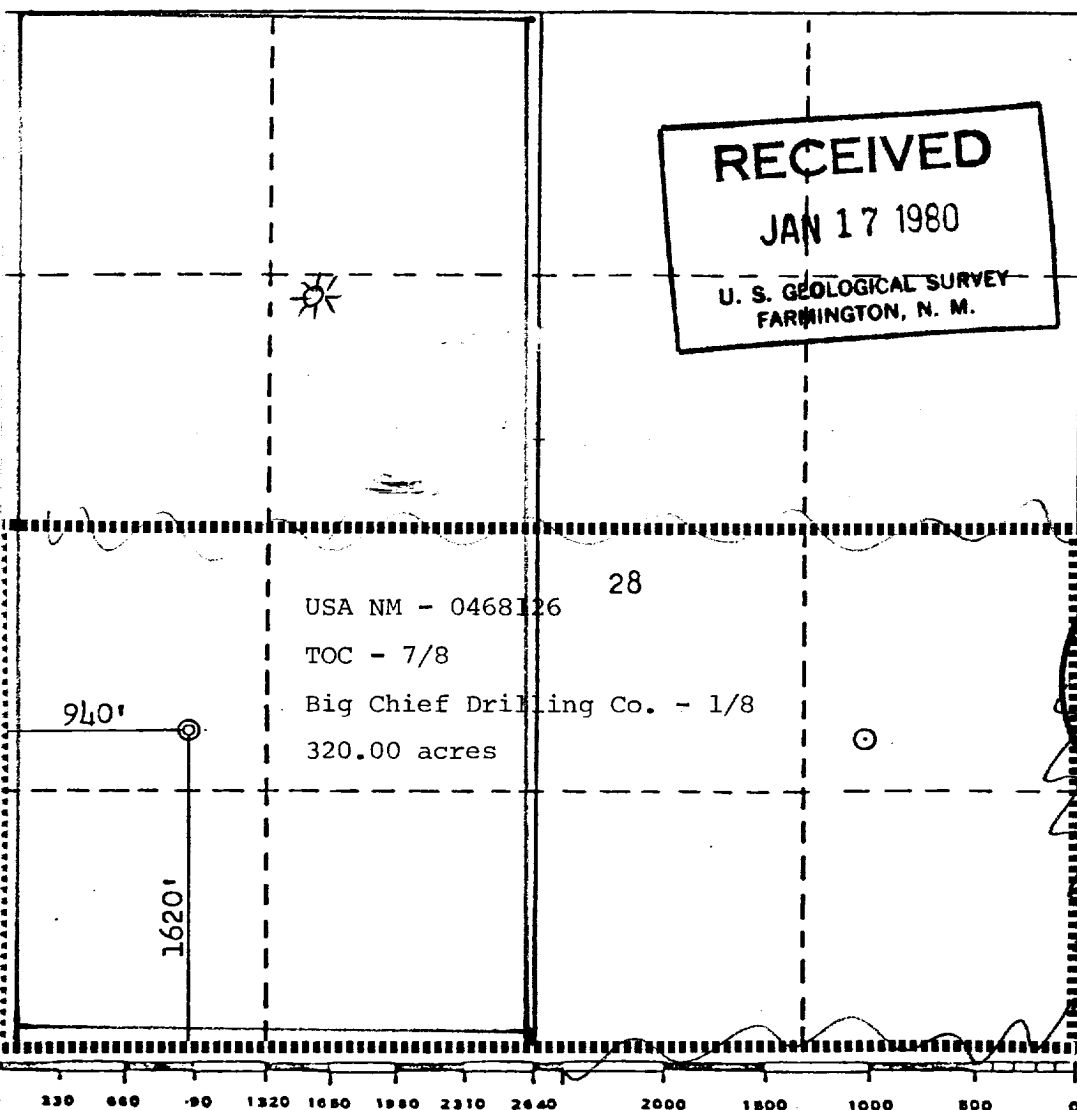
Operator TENNECO OIL COMPANY			Lease CALLOW		Well No. 98 11E
Unit Letter L	Section 28	Township 29N	Range 13W	County San Juan	
Actual Footage Location of Well: 1620 feet from the South line and 940 feet from the West line					
Ground Level Elev. 5818	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320.00 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 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.

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 recent surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed

October 31, 1979

Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr, Jr.

Certificate No. 3950

3950

TEENECO OIL COMPANY

PROGNOSIS TO DRILL AND COMPLETE

DIVISION: Rocky Mountain

DATE: September 13, 1979

LEASE: Callow

WELL NO.: 9-E

LOCATION: 1620' FSL, 940' FWL
Sec. 28, T 29N, R 13W
San Juan County, New Mexico

FIELD: Basin Dakota

ESTIMATED ELEVATION: 5810'

ESTIMATED TOTAL DEPTH: 6400'

PROJECTED HORIZON: Dakota

DRILLING, CASING AND CEMENT PROGRAM:

- (1) MIRURT.
- (2) Drill 12 1/4" hole to + 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 + 4200'.
- (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 0,0 AHEAD*

OJQ	180'	Water		
Pictured Cliffs	1570'	Gas	Mancos	4130'
Lewis	1750'	Gas	Gallup	5250' Oil/Gas
Cliffhouse	3120'	Gas	Greenhorn	6040'
Menefee	3230'	Gas	Dakota	4140' Gas
Point Lookout	4020'	Gas	TD	6400'

DRILLING MUD PROGRAM:

- 0 - 250' Native Solids. V/C WL. Use sufficient Viscosity to clean hole and run casing.
- 250' - TD Low Solids. 15 cc WL. Use sufficient viscosity to clean hole. Log and run casing.

CORING AND TESTING PROGRAM:

NONE

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:

Surface to 5800'	30' samples
5800' to T.D.	10' samples

WELL SURVEYS:

Majority of logs will be cased hole. GR-Neutron, or TDT. A few will be open hole GR-Induction.

BOP: 10" 900 Series Hydraulic operated 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

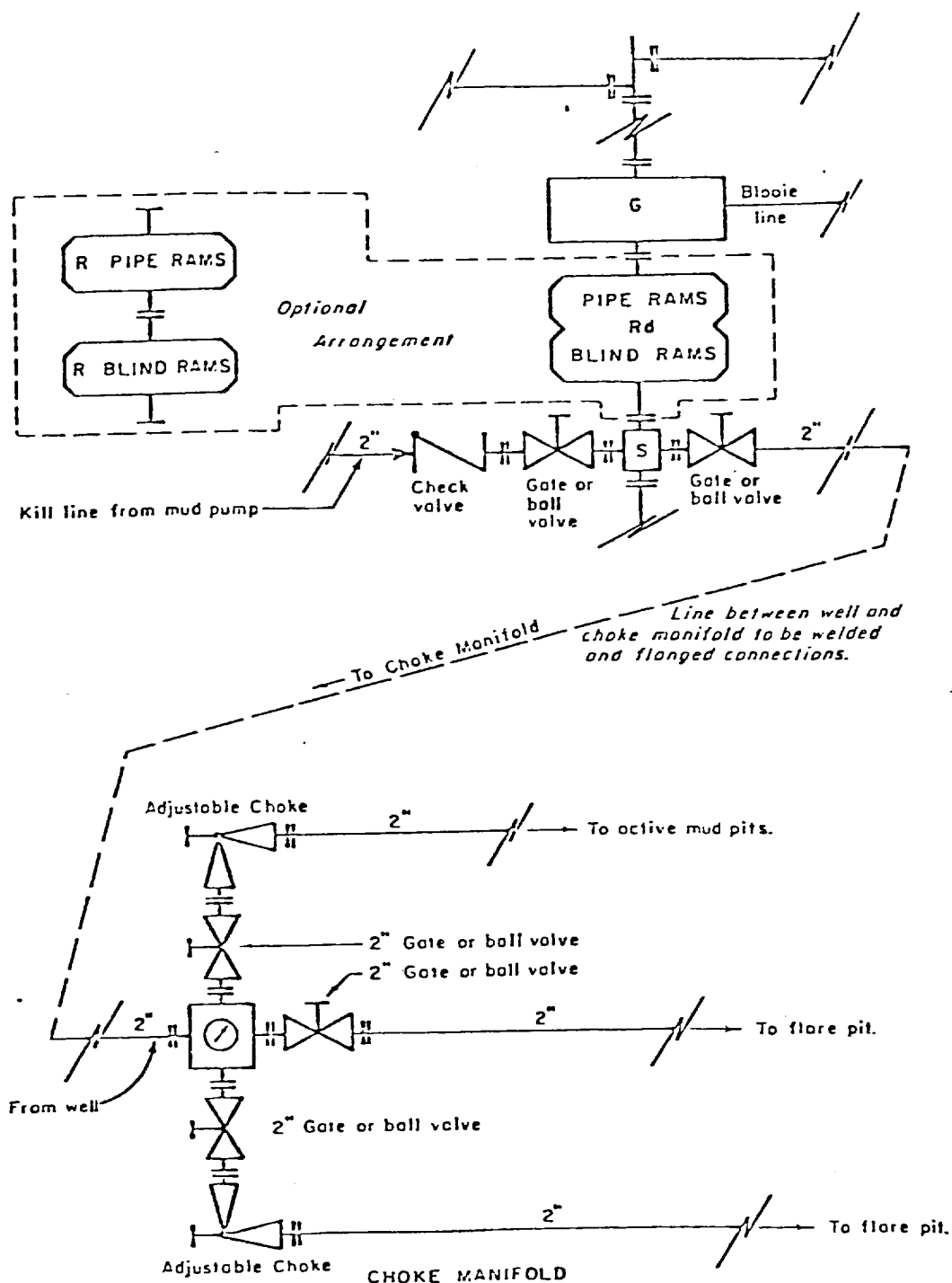
The yellow sheet of the IADC Report to be filled out completely, the original copy of the drilling time recorder, and copies of any invoices from this well signed and received for Tenneco Oil Company will be mailed daily to:

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 10-26-79 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 atop the bluffs on the South side of the San Juan $\frac{1}{4}$ mile East of Hwy. 371. The soil is sandy loam supporting juniper snakeweed, rabbit brush, and narrow leaf yucca. The surface and minerals are federally owned.
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

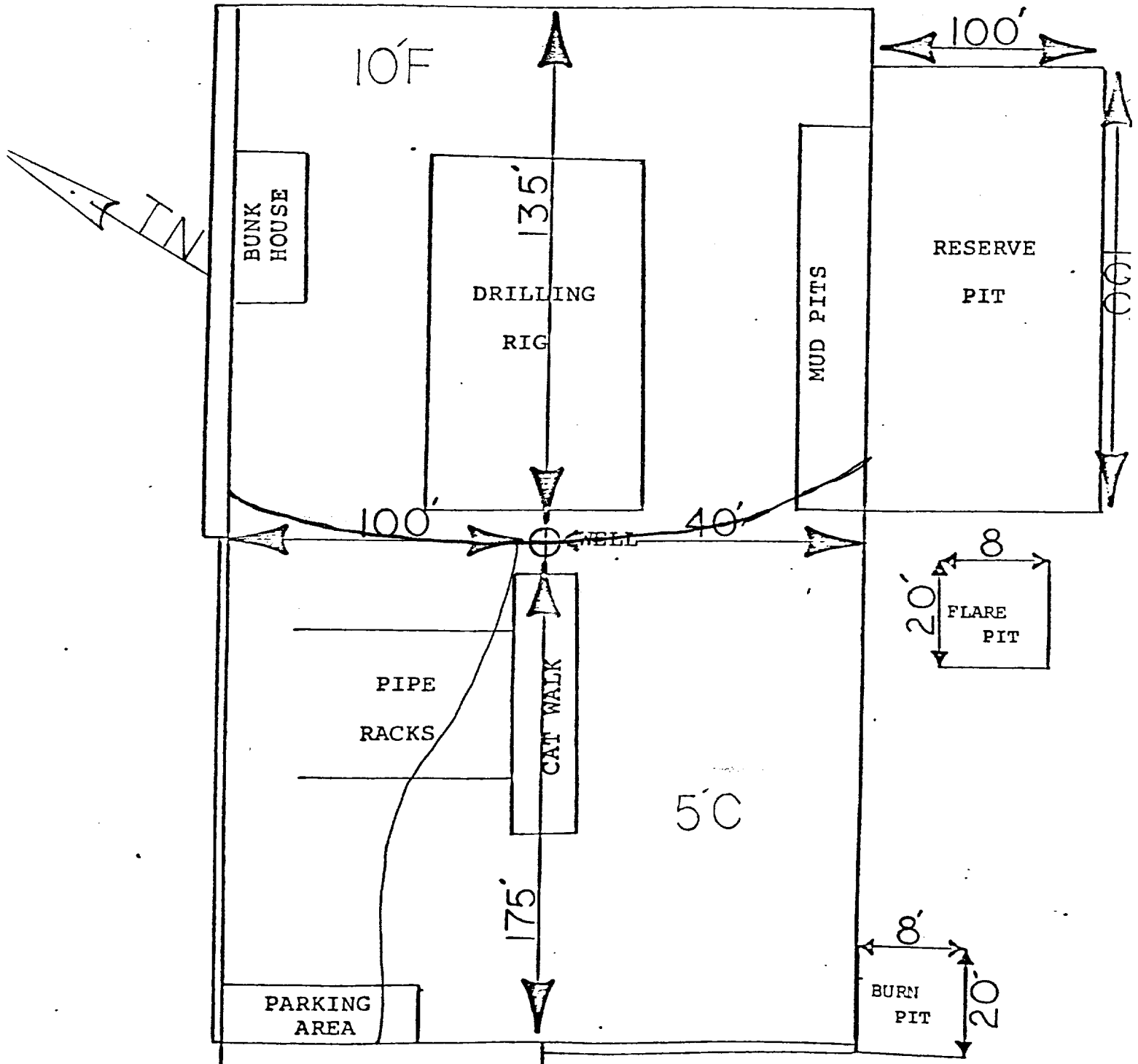
EXHIBIT

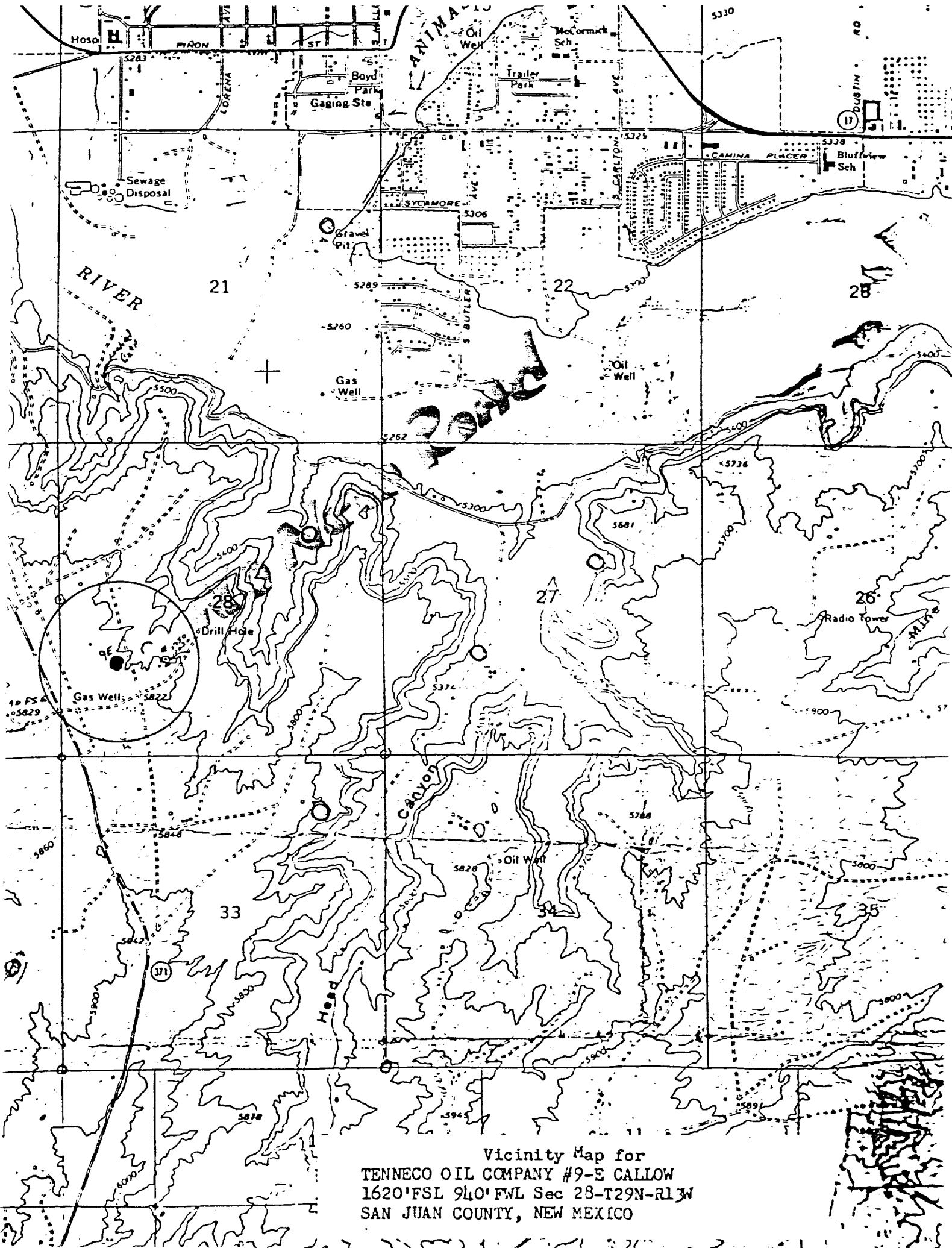
RILLING WELL SITE LAYOUT *Callow 9E*

1620 FSL 940 FWL SEC 28, T29N, 13W

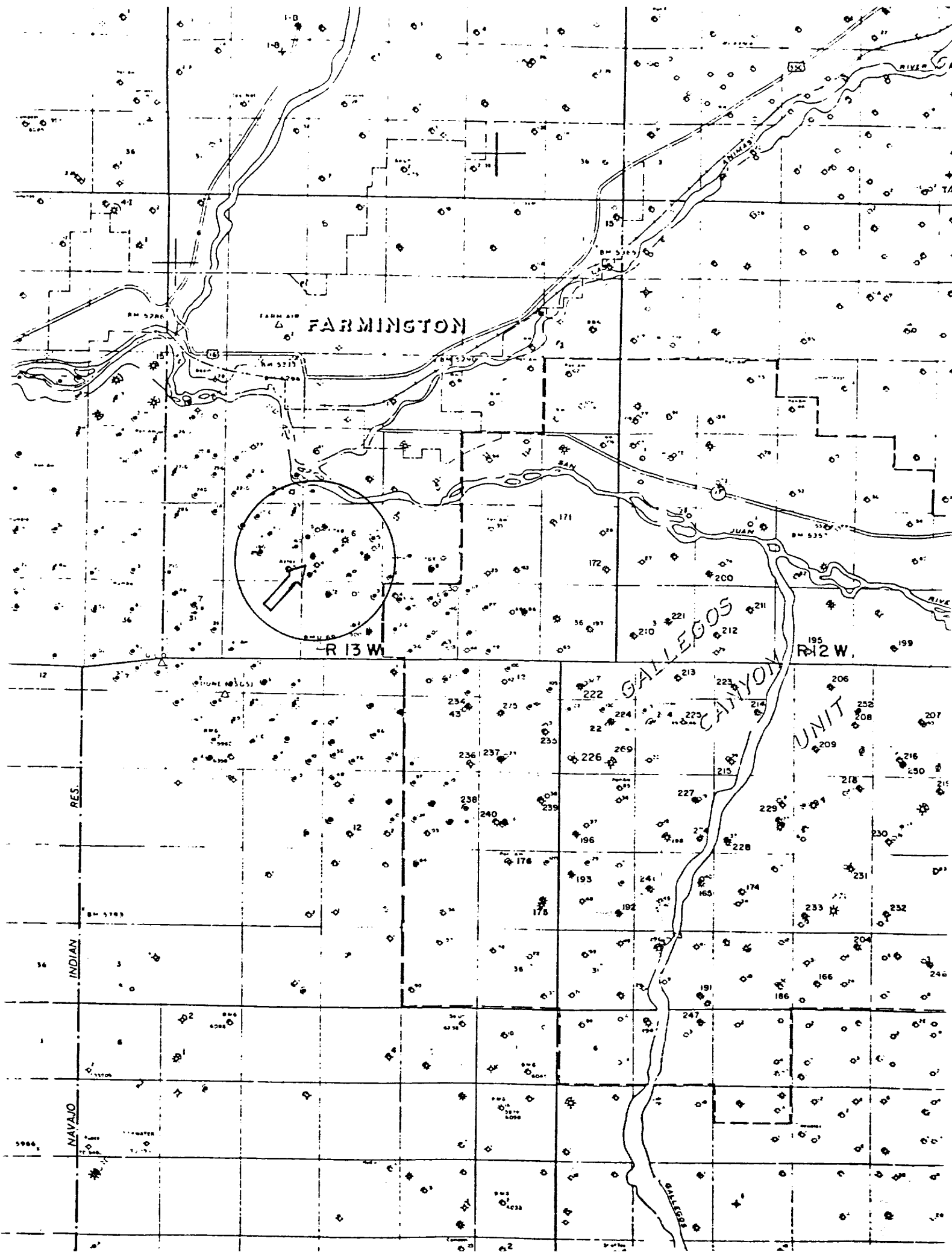
DATE *1-17-80*

No New Road Construction





Vicinity Map for
TENNECO OIL COMPANY #9-E CALLOW
1620' FSL 940' FWL Sec 28-T29N-R13W
SAN JUAN COUNTY, NEW MEXICO



FARMINGTON

R 13 W

R 12 W

GALLEGOS CANYON

UNIT

RES.

INDIAN

NAVAJO