

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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
1860 Lincoln St., Suite 1200, Denver, Colorado 80295

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
1450 'FSL and 1515 FEL
Unit J

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Turn E on Lease Rd. off Hwy 17, one mi S of Archuleta go E 1 1/2 mi
Turn right on Lease Rd. to existing P.C. Well.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE
+ 320

17. NO. OF ACRES ASSIGNED TO THIS WELL
E/1325 287.18

19. PROPOSED DEPTH
+5338'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6173' GL

22. APPROX. DATE WORK WILL START*
April 21, 1977

5. LEASE DESIGNATION AND SERIAL NO.
SF-079511-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Florance

9. WELL NO.
#46A

10. FIELD AND POOL OR WILDCAT
Blanco Mesa Verde

11. SEC., T., R., M., OR B.L.K. AND SURVEY OR AREA
Sec. 29, T30N, R8 W

12. COUNTY OR PARISH
San Juan

13. STATE
New Mexico

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	+ 200'	Suff. to circulate to surface
8-3/4"	7"	23#	+ 3388'	Suff. to cement to surface csg.
6-1/8"	4-1/2"	10.5#	+ 3088'-5338'	Suff. to cement to 7" csg.

1- The geologic name of this surface formation is (San Jose Eocene/~~Maximiliano~~)

2&3 Formation Tops (Estimated)

Pictured Cliffs	+	2,888	Possible oil or gas producer
Cliff House	+	4,608	Possible oil or gas producer
Menefee	+	4,688	Possible oil or gas producer
Point Lookout	+	5,088	Possible oil or gas producer
Mancos Shale	+	5,218	

4- Run 9-5/8" OD, K-55 new casing to +200' and circulate cement to surface. Run 7" OD, 23#, K-55 new casing to + 3388' and circulate cement up through the 9-5/8" csg. Run a 4 1/2" csg. Liner from 300' above bottom of 7" csg. to T.D. and circulate cement back to the top of 4 1/2" csg. Casinghead will be a 10" 900 series w/a 3000 psi. rating.

5- Blowout preventors: Hydraulic, double ram, 10". One set of rams will be provided for each size drill pipe in the hole. One set of blind rams at all times. Fill line will be 2", kill line will be 2", choke relief line will be 2" with variable choke.

6- We will use; spud mud from 0-+200'; Gel Chemical w/low solids as needed to maintain good hole conditions from +200'-+3388; Compressed gas from + 3388 to T.D..

7- Auxiliary Equipment

- Kelly cock will be in use at all times.
- Stabbing valve to fit drill pipe will be present on floor at all times.
- Mud monitoring will be visual, no abnormal pressures are anticipated in this area.
- Rotating head will be used when drilling with gas.

3- An AOF test will be taken at the completion of this well. No cores will be taken. Gamma Ray and Compensated Density logs will be run. Any other evaluation that may be necessary during the drilling of this well will be conducted as needed.

9- No abnormal pressures or temperatures are anticipated. See point #5 for blowout prevention equipment.

10- The drilling of this well will take approximately eight days. The gas is contracted to Southern Union Gathering Co.

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 locations and true vertical depths. Give blowout preventer program, if any.

24. SIGNED A.H. Myers TITLE Div. Production Manager DATE 2-16-77

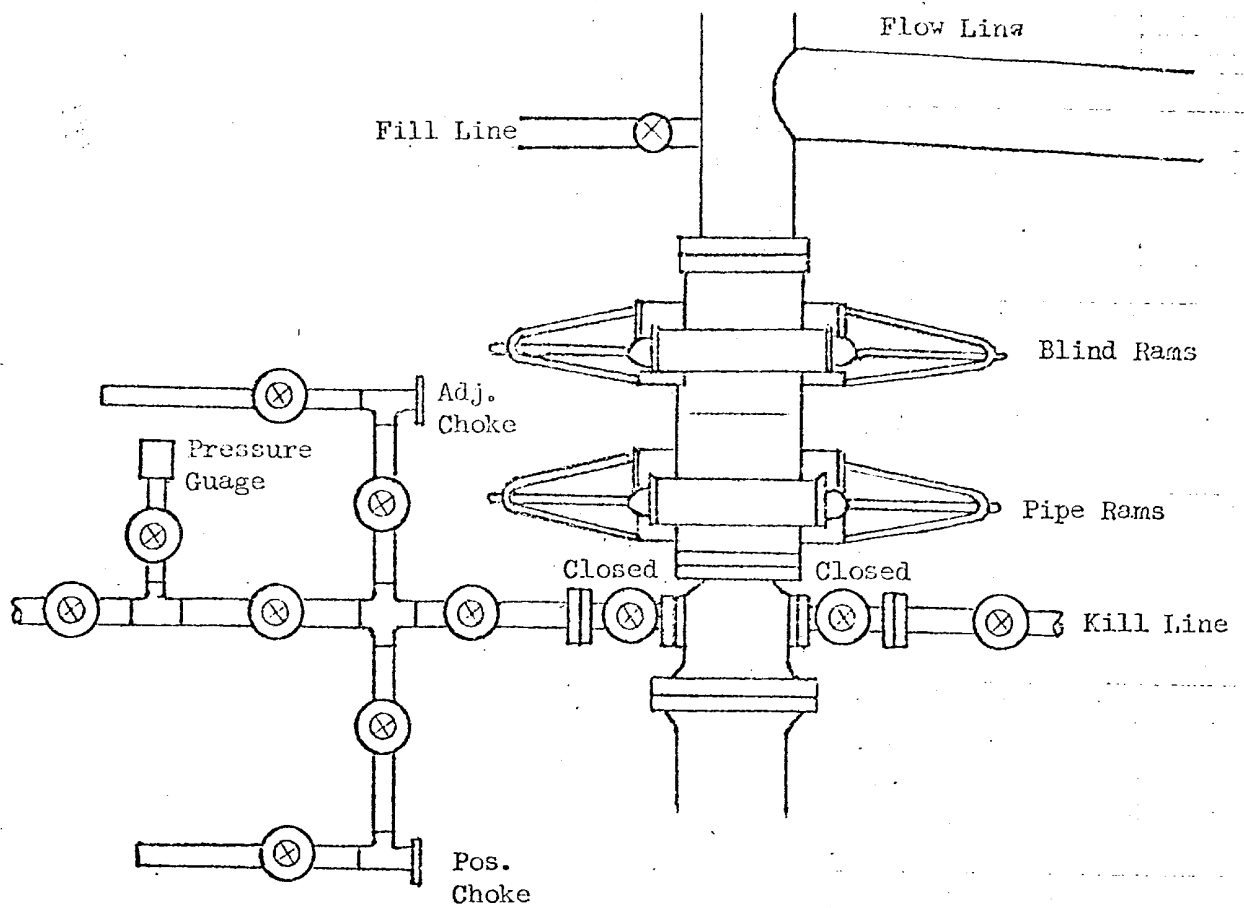
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY ab TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
FEB 22 1977
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.



All valves 2"

All BOPs, flanges, spools, valves, & lines must be series 900 or 3000 psi working press.

Choke manifold must be at ground level and extended out from under substructure.

TENNECO OIL COMPANY

REQUIRED MINIMUM BLOWOUT PREVENTOR

HOOKUP

Denver, Colorado

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator TENNECO OIL COMPANY			Lease FLORANCE		Well No. 46 - A
Unit Letter J	Section 29	Township 30 NORTH	Range 8 WEST	County SAN JUAN	

Actual Footage Location of Well:
1450 feet from the **SOUTH** line and **1515** feet from the **EAST** line

Ground Level Elev. 6173	Producing Formation /Blanco Mesa Verde	Pool Blanco Mesa Verde	Dedicated Acreage: 287.18 E/320 Acres
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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 Communitization

If answer is "no," list the owners and tract descriptions which have actually 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.

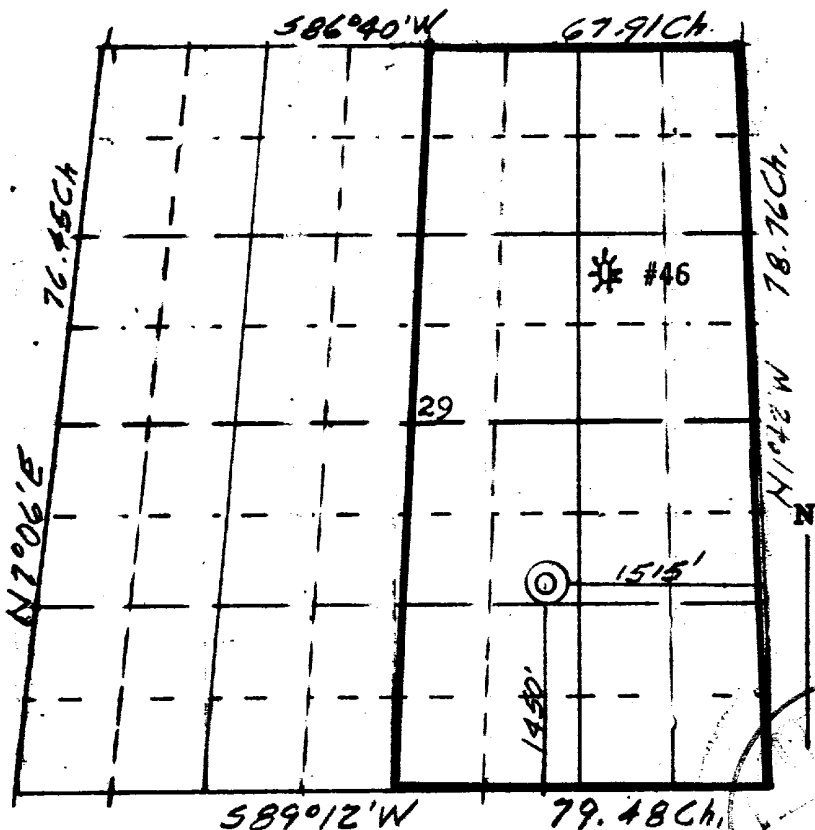
Name *W. L. Drake*
 Position Production Analyst
 Company Tenneco Oil Company
 Date February 14, 1977

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.

7 February 1977
 Date Surveyed
James P. Leese
 Registered Professional Engineer
 and/or Land Surveyor **JAMES P. LEESE**

1463

Certificate No.



FEB 25 1977
 OIL CON. COM.
 DIST.

Existing Roads:

- See surveyors plat for actual staking.
- The well site is located approximately 1½ miles SE of Archuleta, N.M.
- See Exhibit "B" for access roads.
- Not applicable.
- See Exhibit "B" for one mile radius road map.
- No new road will be necessary because PC well is 150' south of stake. We will construct water bars where necessary, and slope road through all arroyos.

Planned Access Roads:

- See Exhibit "B".
- Width=14'
- No turnouts.
- Drainage=Water bars will be constructed where required to prevent erosion.
- Road will be cut into any arroyos and sloped across the bottom to maintain normal drainage. Cuts or fills will be kept to a minimum.
- No gates or cattle guards are needed.
- Road is center line flagged.

Location of Existing Wells.

- See Exhibits "B" and "C" for well locations.

Location of Existing and/or Proposed Facilities.

- See Exhibit "B" and "C". Lines are buried.
- This is expected to be a dry gas well. If condensate is encountered, a 300 bbl steel tank painted green to match the surrounding area, will be set on a gravel base near the well as shown on Exhibit "A". A dirt bank will be erected around the tank to contain any spills. The possible spill area will be fenced.
- If well is productive, pits will be backfilled, leveled and reseeded as soon as practical to original contours.

Location and type of Water Supply

- Water will be hauled from the San Juan River, or El Paso water wells.
- Trucks will be used to haul water.
- No water well will be drilled.

Source of Construction Materials

- No construction materials will be used. Surface soil will be stockpiled.
- We will not be getting any construction materials from Federal or Indian lands.
- No construction materials will be used.
- No access roads for construction materials will be needed.

Methods for Handling Waste Disposal

- Cuttings will be disposed of in the reserve pit.
- b&c Drilling fluids and produced water will be collected in the reserve pit and hauled away to an approved disposal system or a separate disposal application will be submitted. Any produced oil will be run to the tank (see 4:8)
- d&e All detrimental waste will be hauled away, burned or buried with a minimum cover of 24" of dirt.
- f. After the rig moves out, See 4:C. If unproductive, a dry hole marker will be installed and all pits will be filled, leveled and entire location reseeded to your specifications. Roads will be leveled and reseeded.

Ancillary Facilities

- No camps or airstrips will be needed in the drilling of this well.

Well Site Layout.

- See Exhibit "A".
- Pits will be unlined.

Plans for Restoration of Surface.

- See 4:C and 7:A-F
- BLM SEEDING REQUIREMENTS IN THE FARMINGTON RESOURCE AREA

We will use seed mixture (kx, 2). A disc-type drill set for 8"-10" rows with two boxes for various seed sizes will used. The seed will drilled on the contour not less than ½" deep or more than 1" deep, followed by a drag, packer, or roller to compact and cover the seed adequately. Where slopes are to steep for contour drilling, a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will then be covered by whatever means are practical. The following species in lbs. pure-live-seed per acre will used:

SEED MIXTURE 1	SPECIES	SEED MIXTURE 2
2-½ lbs.	Smooth Brome (Bromus inermis)	
1 lb.	Nonad Alfalfa (Medicago sitiva)	
½ lb.	Fourwing Saltbush (dewinged) (Atriplex conescens)	½ lb.
2-½ lbs.	Crested Wheatgrass (Agropyron desertorum)	3-½ lbs.
	Sand Dropseed (Sporobolus cryptandrus)	½ lb.
	Winterfat (Eurotia lanata)	½ lb.
	Alkali Sacaton (Sporobolus airoides)	½ lb.

- d. If any oil is on the pit, it will be removed or flagged.
e. Rehabilitation operations will be done during the best weather conditions to promote regrowth in area. All seeding will take place between July 1 and Sept.

11. Other information.

- a. Site is located in Junipers with bentonite and sand for soil. The vegetation is predominately Juniper and grass.
b. The surface is used for grazing, for wildlife
c. No open water, occupied dwellings, archaeological, historical or cultural site will be disturbed by this location.

12- Operator's Representative.

- a. Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows: Darrell Brown, 1850 Lincoln, Suite 1200, Denver, Colorado 80295
Office-303-292-9920 ext. 254 Home-303-771-8297

13- 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 as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by Tenneco Oil Company and its contractors and sub-contractors will conform to this plan.

2-16-77

Date

D.E. Brown
D.E. Brown

Division Drilling Engineer

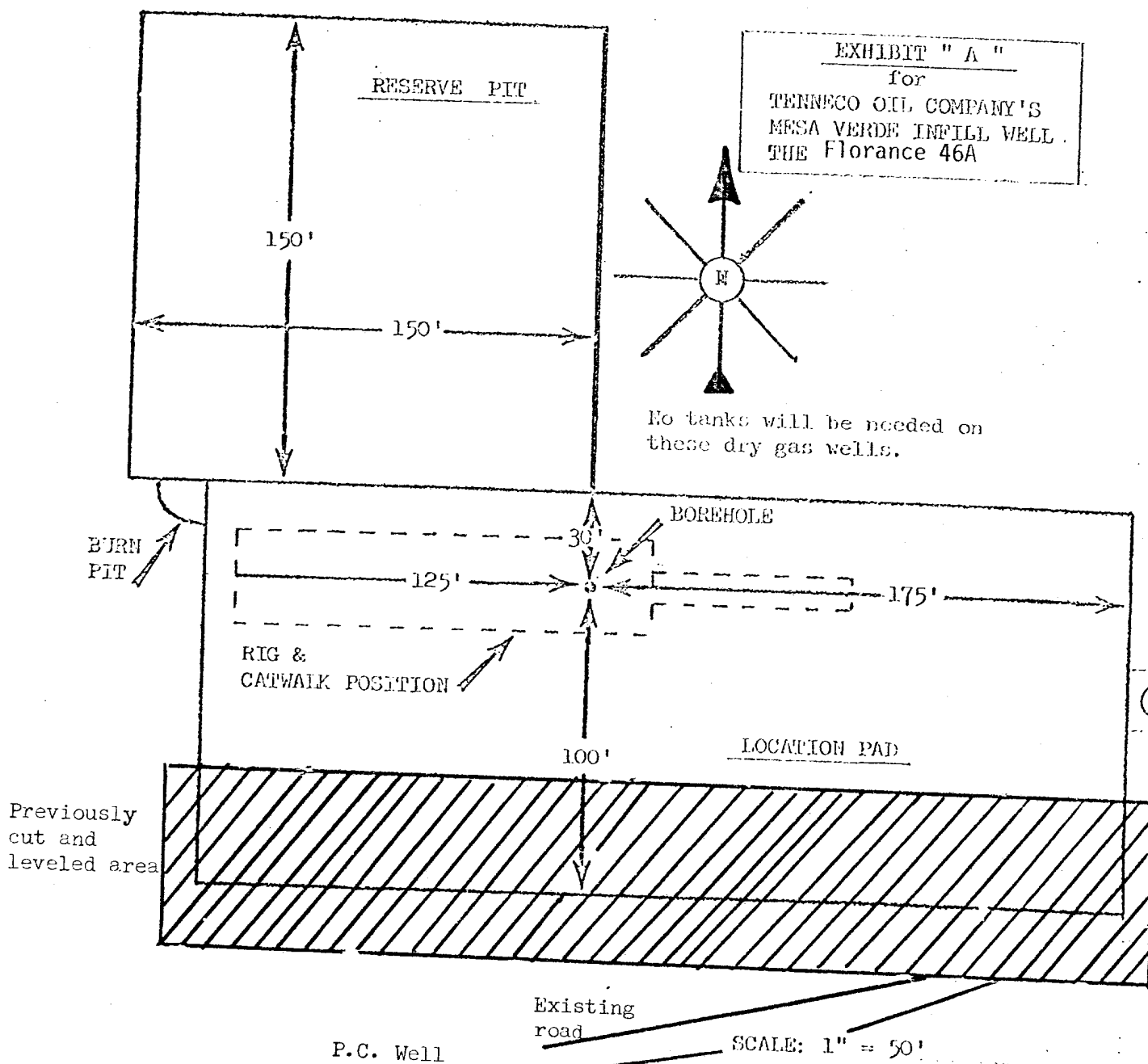
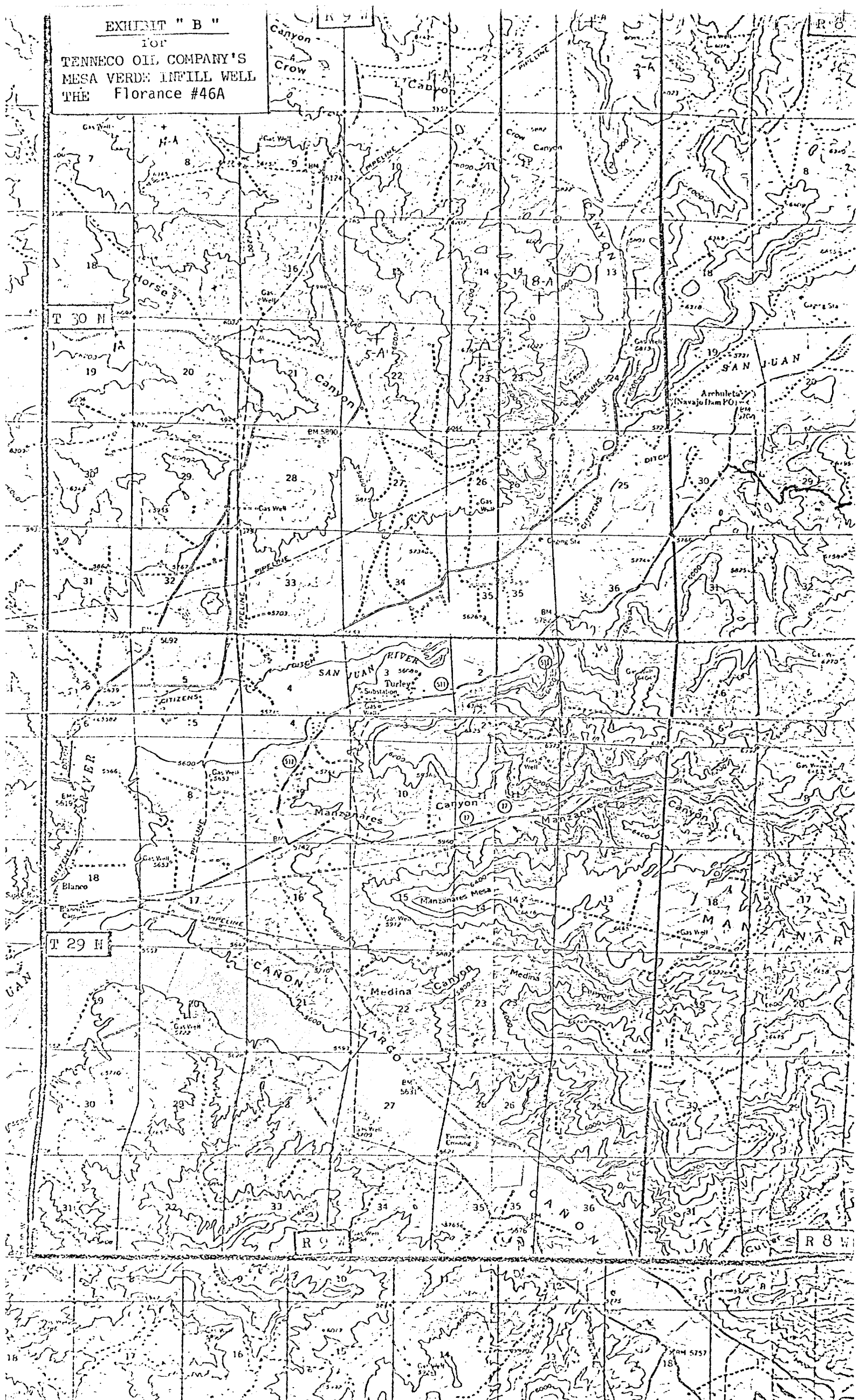


EXHIBIT " B "

FOR
TENNECO OIL COMPANY'S
MESA VERDE INFILL WELL
THE Florance #46A



R 9 W

R 8 W

EXHIBIT "C"

FOR

TENNECO OIL COMPANY'S INFILL WELL
THE

GATHERING SYSTEMS

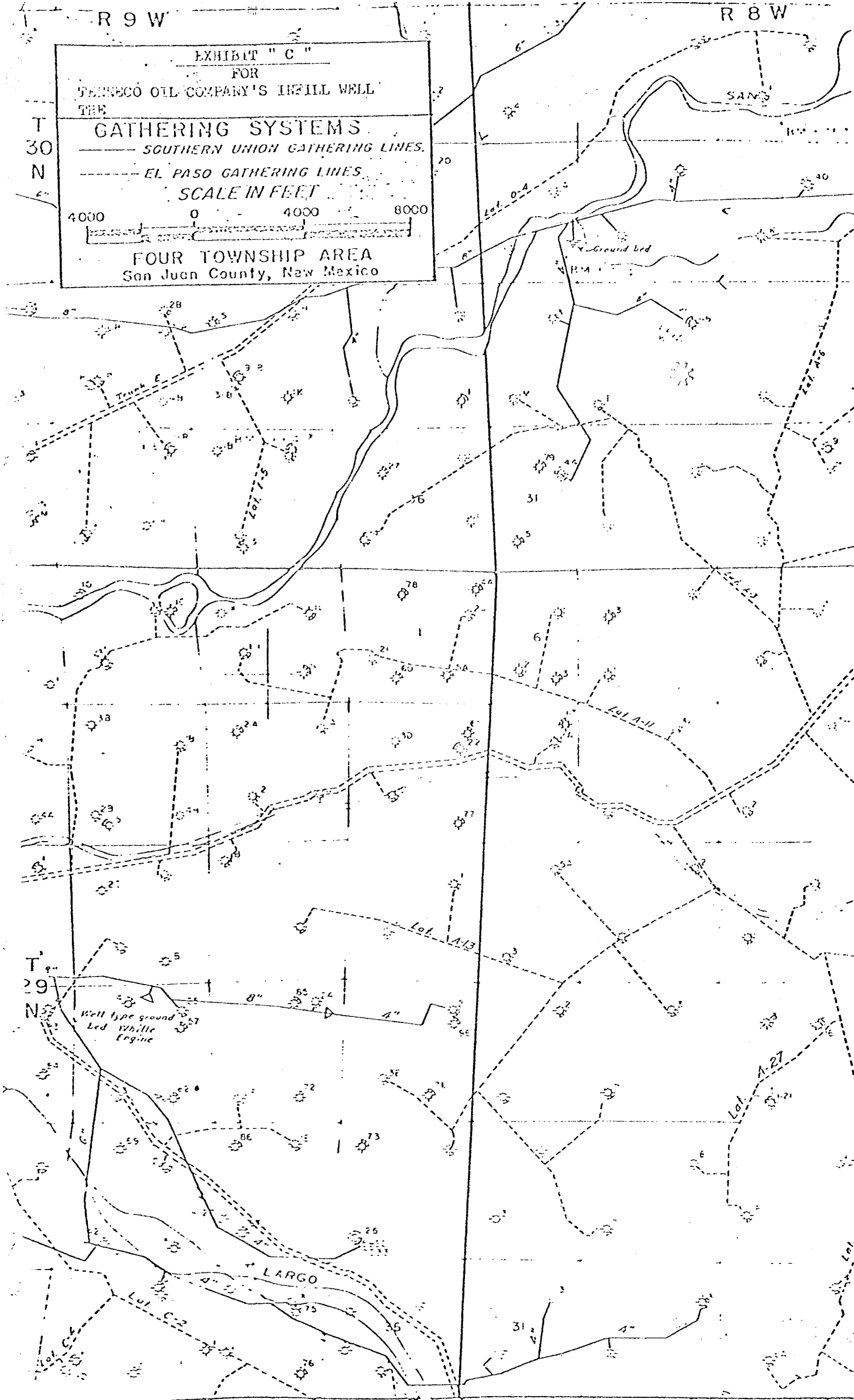
SOUTHERN UNION GATHERING LINES.

EL PASO GATHERING LINES.

SCALE IN FEET

4000 0 4000 8000

FOUR TOWNSHIP AREA
San Juan County, New Mexico



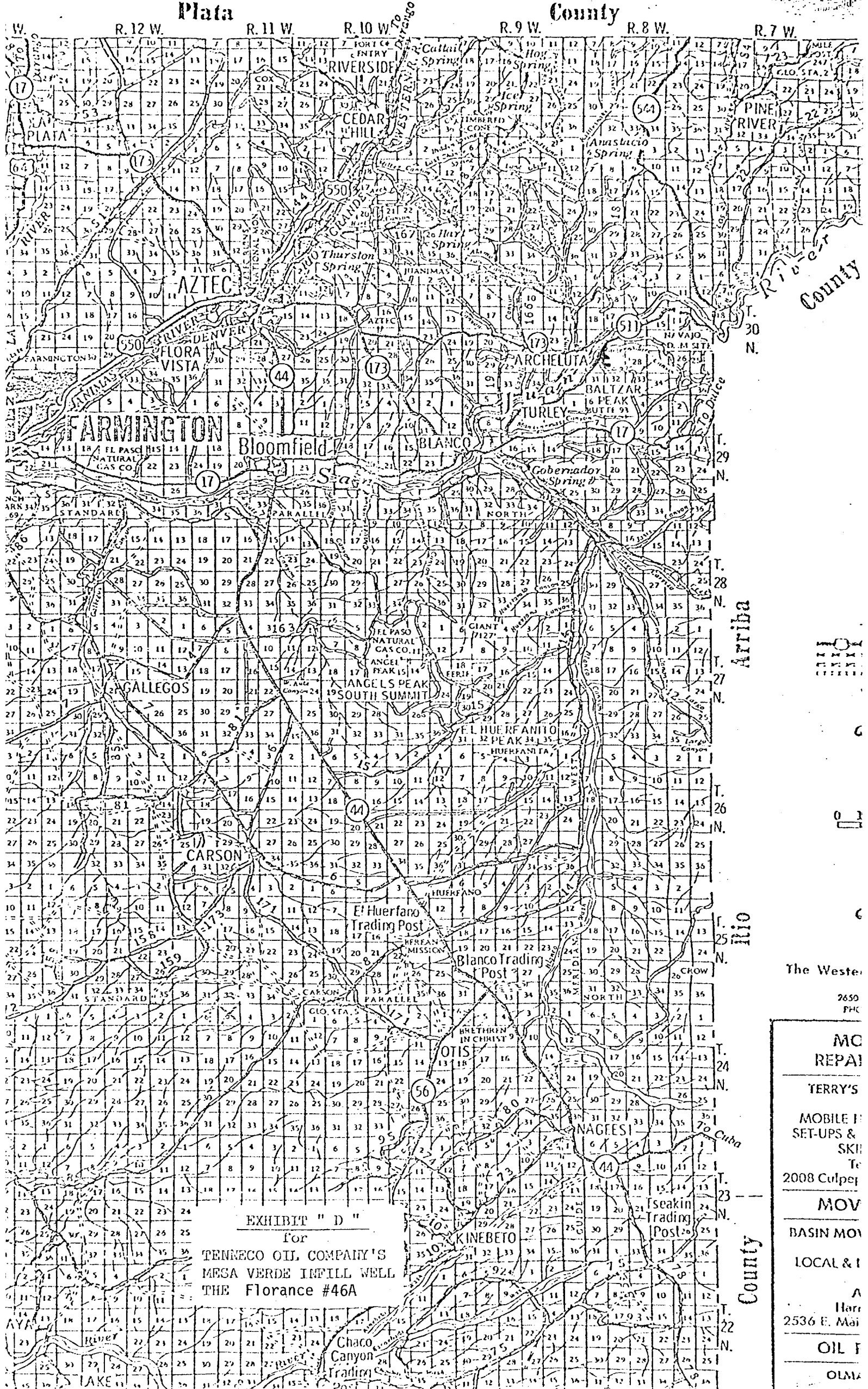


EXHIBIT " D "

for

TENNECO OIL COMPANY'S

MESA VERDE INFILL WELL

THE Florance #46A

The Western

2650
FHC

MC
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

To All Operators:

Effective July 1, 1976, to comply with WTL-6, all operators drilling upon federally supervised lands shall provide the following information on or with Form W-331C, "Application for Permit to Drill, Deepen, or Plug Back:

1. The geologic name of the surface formation.
2. The estimated tops of important geologic markers.
3. The estimated depths at which anticipated water, oil, gas, or other mineral-bearing formations are expected to be encountered.
4. The proposed casing program, including the size, grade, and weight-per-foot of each string and whether new or used.
5. The losses or operator's minimum specifications for pressure control equipment which is to be used, a schematic diagram thereof showing sizes, pressure ratings (or API series), and the testing procedures and testing frequency.
6. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.
7. The auxiliary equipment to be used, such as (1) Kelly cocks, (2) floppers at the pit, (3) monitoring equipment on the mud system, (4) a sub on the floor with a full opening valve to be studded into drill pipe when the Kelly is not in the string.
8. The testing, logging, and coring programs to be followed with provision made for required flexibility.
9. Any other value abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.
10. The anticipated starting date and duration of the operations.

Northern Rocky Mountain Area
Checksheet for WTL-6
W-331C (Rev. 1-7-76) to accompany APD

1. Existing Roads - a legible map showing:

- A. Proposed well site as staked. (Actual staking should include two each 200-foot directional reference stakes.)
- B. Route and distance from nearest town or locality to reference point to where well access route leaves main road.
- C. Access road(s) to location color-coded or labeled.
- D. If exploratory well, all existing roads within a 3-mile radius (including type of surface, conditions, etc.).
- E. If development well, all existing roads within a 1-mile radius of well site.
- F. Plans for improvement and/or maintenance of existing roads.

2. Planned Access Roads

- Map showing all necessary access roads to be constructed or reconstructed, showing:
- (1) Right-of-way
 - (2) Maximum grades
 - (3) Turnouts
 - (4) Drainage design
 - (5) Location and size of culverts and brief description of any major cuts and fills
 - (6) Surfacing material
 - (7) Directional signs, cautionboards, or fence cuts
 - (8) Other features which are to be color-line flagged

3. Location of Existing Wells

- Two-mile radius map if exploratory, or 1-mile radius map if development well, showing and identifying existing:
- (1) Water wells
 - (2) Abandoned wells
 - (3) Temporarily abandoned wells
 - (4) Disposal wells
 - (5) Drilling wells
 - (6) Producing wells
 - (7) Shut-in wells
 - (8) Injection wells
 - (9) Monitoring or observation wells for other resources

4. Location of Existing and/or Proposed Facilities

- A. Within 1-mile radius of location show the following existing facilities owned or controlled by lessee/operator:
 - (1) Tank batteries
 - (2) Production facilities
 - (3) Oil gathering lines
 - (4) Gas gathering lines
 - (5) Injection lines
 - (6) Disposal lines
- B. If new facilities are contemplated, in the event of production, show:
 - (1) Proposed location and attendant lines by flagging if off of well pad
 - (2) Dimensions of facilities
 - (3) Construction methods and materials
 - (4) Protective measures and devices to protect livestock and wildlife
- C. Plan for rehabilitation of disturbed areas no longer needed for operations after construction completed.

5. Location and Type of Water Supply

- A. Show location and type of water supply either on map or by written description.
 - B. State method of transporting water, and show any roads or pipelines needed.
 - C. If water well is to be drilled on lease, so state. (No APD for water well necessary, however, unless it will penetrate potential hydrocarbon horizons.)
 - D. Show any needed access roads crossing Federal or Indian lands under item 2.
- Methods for Handling Waste Disposal
- Describe methods and location of proposed containment and disposal of waste material, including:

- (1) Cuttings
- (2) Drilling fluids
- (3) Produced fluids (oil, water)
- (4) Sewage
- (5) Garbage and other waste material (Trash pits should be fenced with small mesh wire to prevent wind scattering trash before being burned or buried.)
- (6) Statement regarding proper cleanup of well site area when rig moves out

6. Accessory Facilities

- Identify all proposed camps and airstrips on a map as to their location, area required, and construction methods. (Camp center and airstrip center lines to be staked on the ground.)
- Well Site Layout
- A plat (not less than 1" = 50') showing:
- (1) Cross sections of drill pad with cuts and fills
 - (2) Location of mud tanks, reserve, burn and trash pits, pipe racks, living facilities, and soil material stockpiles
 - (3) Rig orientation, parking areas, and access roads
 - (4) Statement as to whether pits are to be lined or unlined.
- (Approval as used in this section means field approval of location. All necessary staking or facilities may be done at time of field inspection. A registered surveyor is not mandatory for such operations.)

10. Plans for Restoration of Surface

- State restoration program upon completion of operations, including:
- (1) Backfilling, leveling, contouring, and waste disposal; segregation of spoil materials as needed.
 - (2) Revegetation and rehabilitation - including access roads (normally per BLM recommendations)
 - (3) Prior to rig release, pits will be fenced and so maintained until cleanup
 - (4) If oil on pit, remove oil or install overhead flagging
 - (5) Timetable for commencement and completion of rehabilitation operations

11. Other Information

- General description of:
- (1) Topography, soil characteristics, geologic features, flora and fauna
 - (2) Other surface-use activities and surface ownership of all involved lands
 - (3) Proximity of water, occupied dwellings, archaeological, historical or cultural sites
- Lessee's or operator's representative, include the name, address, and phone number of the lessee's or operator's field representative who is responsible for assuring compliance with the approved surface use and operations plan.
- Certification. The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in item No. 12 of the plan:

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 as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by and its contractors and sub-contractors will conform to this plan.

Date _____ Name and Title _____