Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-24283

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [XX] OTHER — SINGLE ZONE [XX] 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: 820' FNL, 1,550' ~~FEL~~ FWL
At proposed prod. zone

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5. LEASE DESIGNATION AND SERIAL NO.: SF 065557
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Cornell "E"
9. WELL NO.: 1-E
10. FIELD AND POOL, OR WILDCAT: Basin Dakota
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 12, 29N, 12W
12. COUNTY OR PARISH: San Juan
13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 3.5 miles North northeast of Bloomfield, NM

15. 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: 320
17. NO. OF ACRES ASSIGNED TO THIS WELL: W 320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
19. PROPOSED DEPTH: 6600'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5817 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
12¼"	8 5/8" new	24#, K-55	± 300'	Circulate to surface
7 7/8"	4½" new	10.5#, K-55	±6600'	Circulate to surface in two stages

1. If non-productive plug and abandon per U.S.G.S/BLM specifications.
2. No abnormal temperatures, pressures or other geologic hazards are expected.
3. The gas is dedicated.

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DIST. 3

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 February 18, 1980

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
DATE MAR 14 1980
DISTRICT ENGINEER

*See Instructions On Reverse Side

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
TENNECO OIL COMPANY	CORNELL "E"	1-E

Unit Letter	Section	Township	Range	County
C	12	29N	12W	San Juan

Actual Footage Location of Well:
820 feet from the North line and 1550 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5817	Dakota	Basin Dakota	W 309.10 320.00 Acres

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

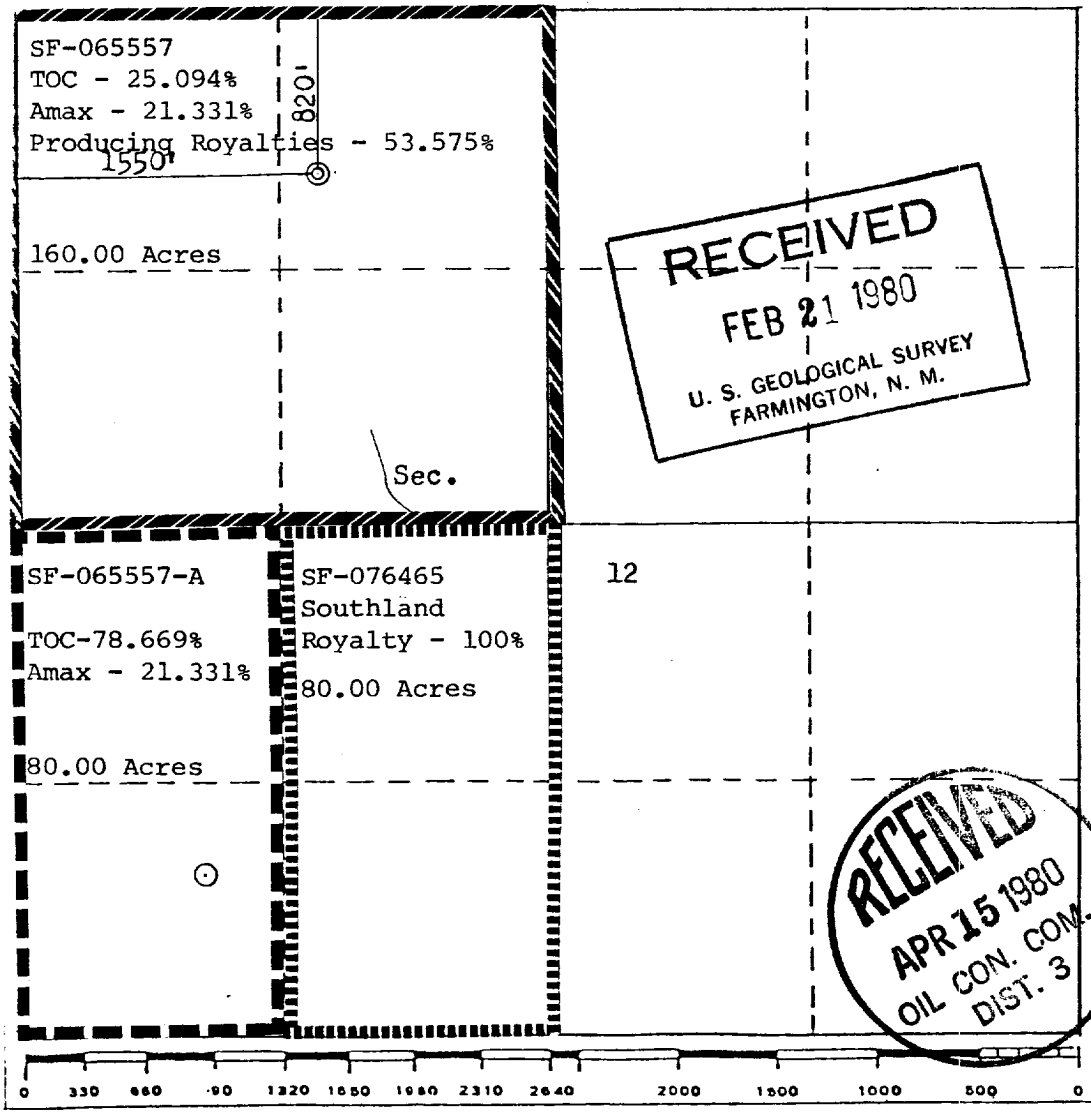
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.



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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
February 18, 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
January 25, 1980
Registered Professional Engineer and/or Land Surveyor
Fred B. Kerr Jr.
Certificate No.
3950

NEW MEXICO LAND SURVEYOR
FRED B. KERR, JR.
3950

PROGNOSIS TO DRILL AND COMPLETE

DIVISION: Rocky Mountain

DATE: September 13, 1979

LEASE: Cornell "E"

WELL NO.: 1-E

LOCATION: 820' FNL, 1550' ~~FWL~~ FWL
Sec. 12, T 29N, R 12W
San Juan County, New Mexico

FIELD: Basin Dakota

ESTIMATED ELEVATION: 5800'

ESTIMATED TOTAL DEPTH: 6600'

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 ± 4800'.

(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 - Nacimiento					
OJO	720'	Water			
Pictured Cliffs	1990'	Gas	Mancos	4720'	
Lewis	2190'		Gallup	5610'	Oil/Gas
Cliffhouse	3580'	Gas	Greenhorn	6340'	
Menefee	3720'	Gas	Dakota	6450'	Gas
Point Lookout	4320'	Gas	TD	6600'	

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^{0} per 100'.

SAMPLES:

Surface to 6300'	30' samples
6300' 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

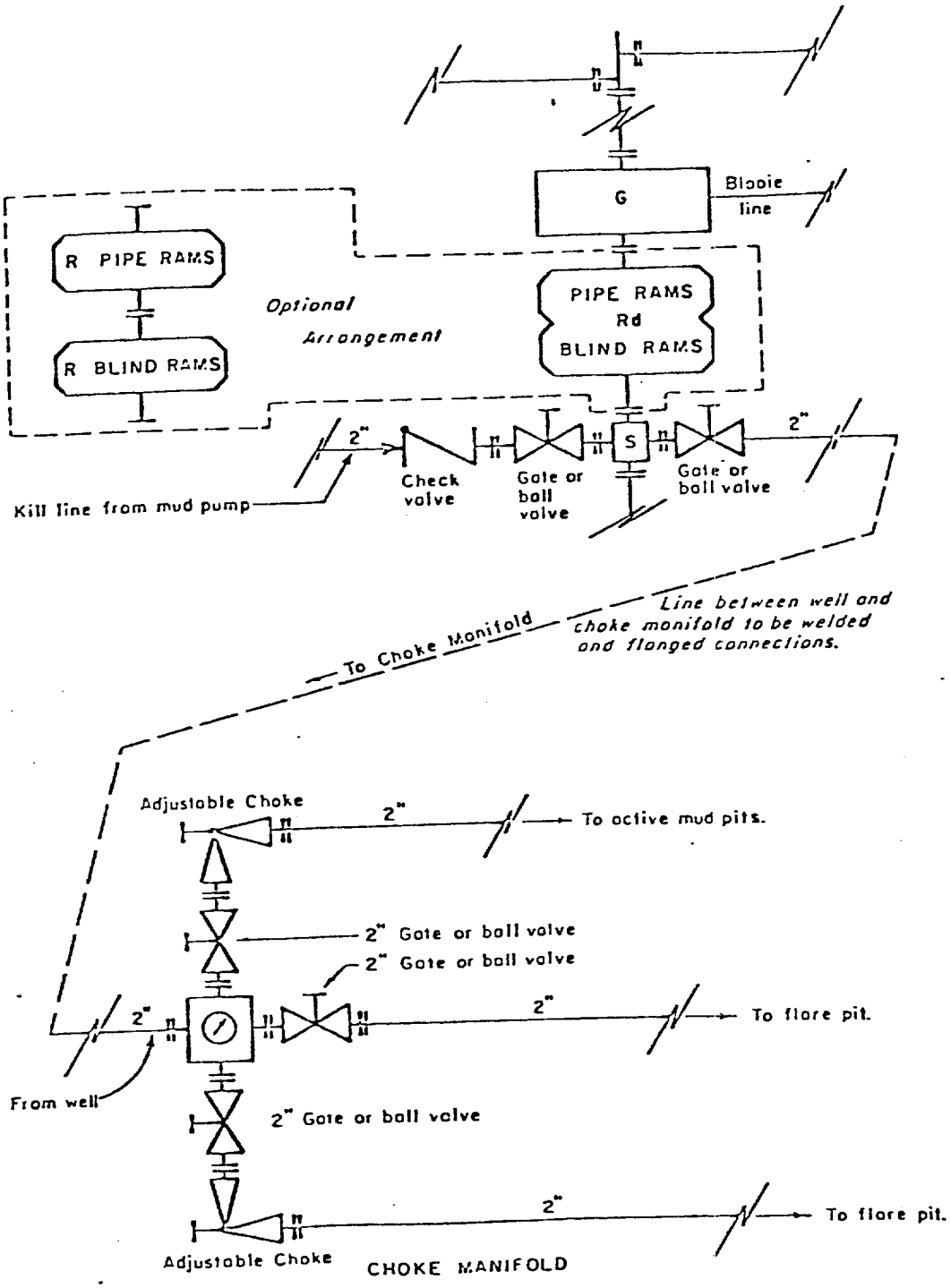
ATTENTION: DRILLING DEPARTMENT

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 AN
CHOKE MANIFOLD

J. MAGILL 10-26-78 EVI

SURFACE USE PLAN

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 lease 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 in an area of broken rolling hills with sandy loam soil. The principal vegetation is Pinon and Juniper. The drainage is to the South.

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 and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

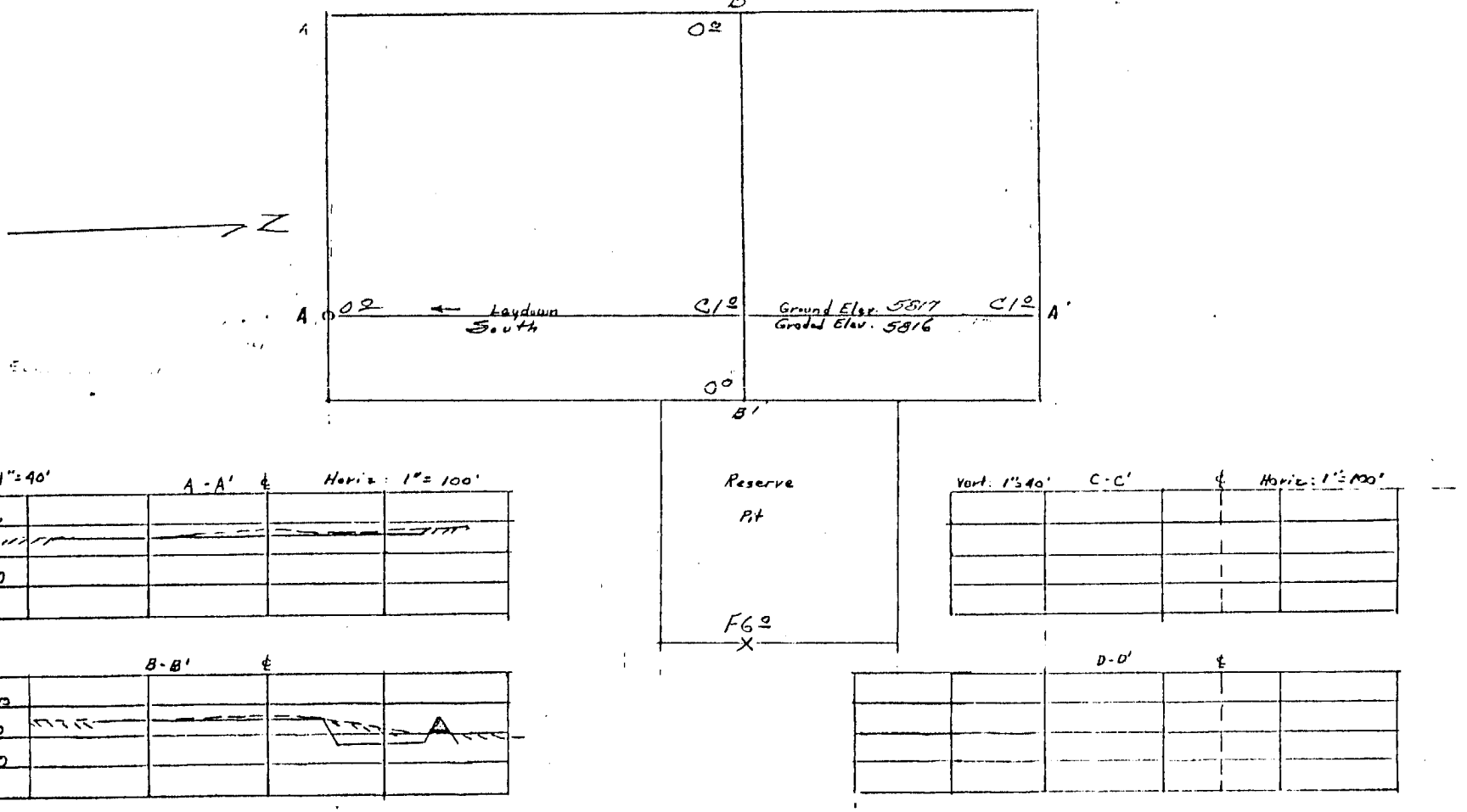
L. Freeman
Staff Production Analyst

LF/gh

Location Profile for

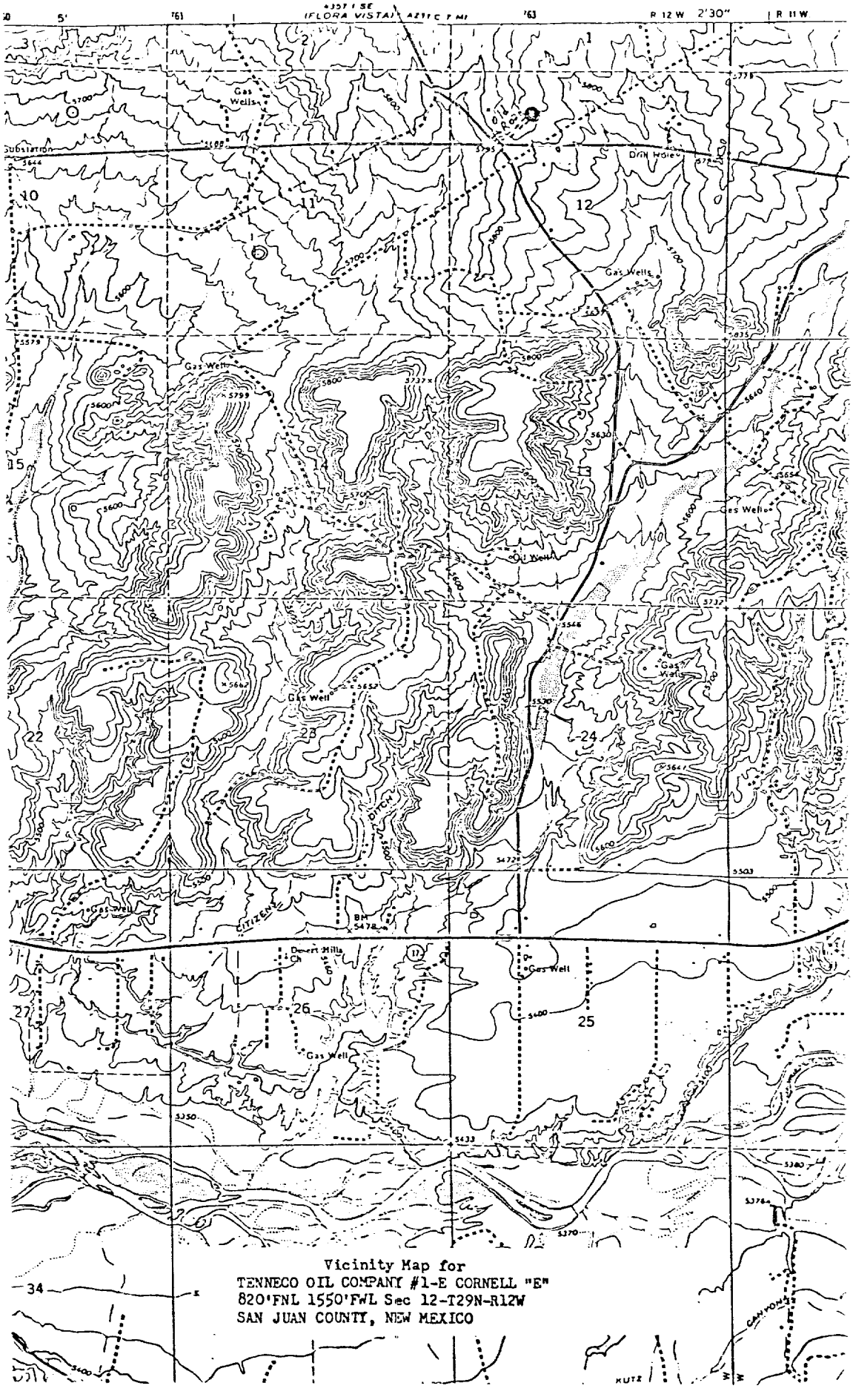
TENNECO OIL COMPANY #1-E CORNELL "E"

820'FNL 1550'FWL Sec 12-T29N-R12W SAN JUANCOUNTY, NEW MEXICO

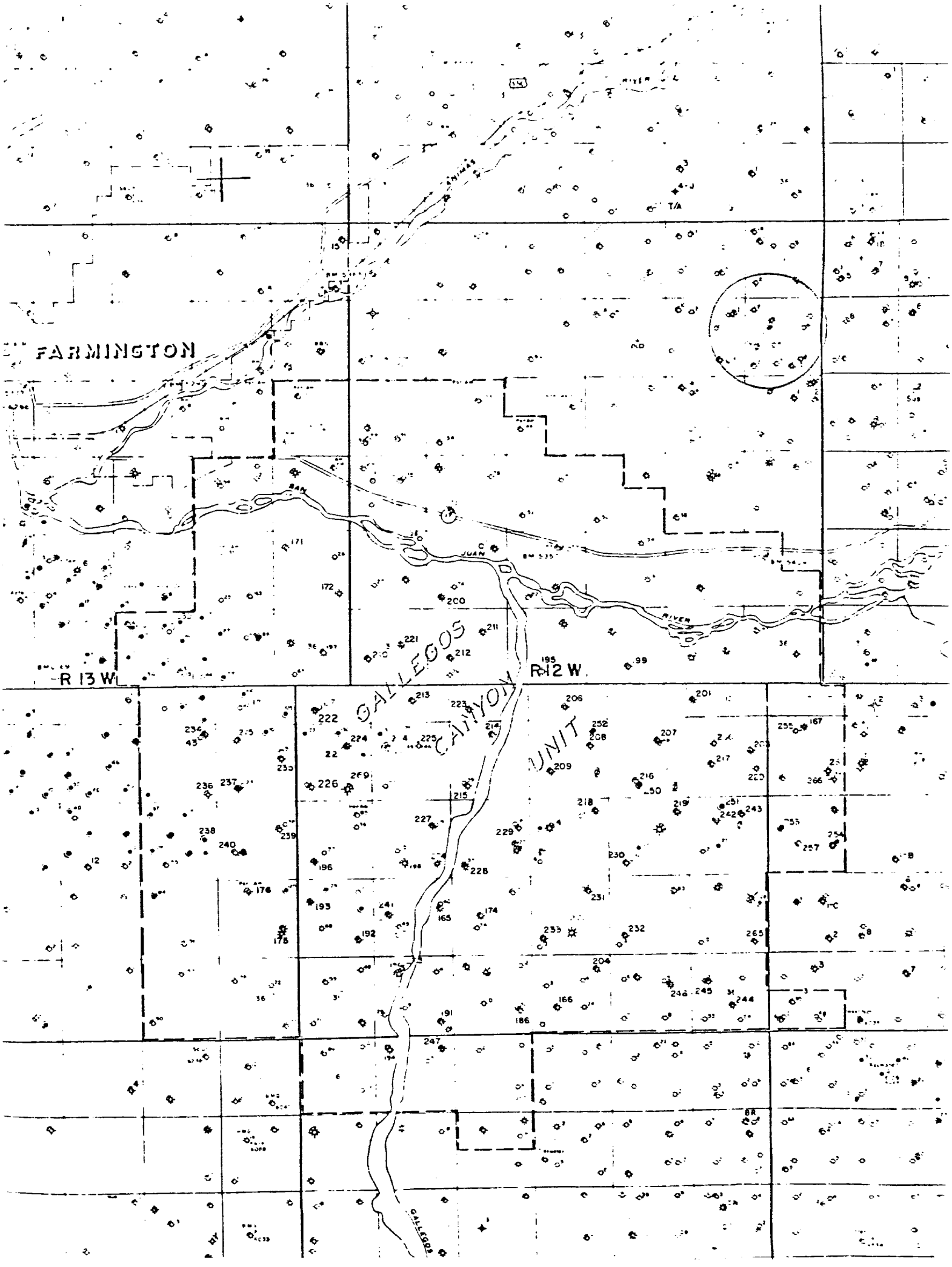


KERR LAND SURVEYING

Date: JANUARY 25, 1980



Vicinity Map for
TENNECO OIL COMPANY #1-E CORNELL "E"
820'FNL 1550'FWL Sec 12-T29N-R12W
SAN JUAN COUNTY, NEW MEXICO


FARMINGTON
R 13 W
R 12 W
GALLEGOS CANYON UNIT
SAN JUAN RIVER
ANIMAS RIVER
GALLEGOS