Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-039-22246

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Palmer Oil & Gas Company

3. ADDRESS OF OPERATOR: P. O. Box 2564, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1650' FNL, 1650' FEL
At proposed prod. zone: same

5. LEASE DESIGNATION AND SERIAL NO.: Joint Venture

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Apache-JVA

9. WELL NO.: No. 11

10. FIELD AND POOL, OR WILDCAT: Blanco-Mesaverde ext

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SW¼NE¼ Sec. 16-27N-2W

12. COUNTY OR PARISH: Rio Arriba | 13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 27 miles North of Ojito

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1650'

16. NO. OF ACRES IN LEASE: Joint Venture

17. NO. OF ACRES ASSIGNED TO THIS WELL: E/320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 6350'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 7366' GR

22. APPROX. DATE WORK WILL START*: December 15, 1979

23. 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" new	36#	300'	300 sacks
8-3/4"	7" new	20#	4050'	250 sacks
6-1/4"	4-1/2" new	10.5#	6350'	600 sacks

1. Palmer Oil & Gas Company will drill a 6350' Mesaverde test in the SW¼NE¼ of Section 16, T27N-R2W.
2. Well to be drilled by rotary tools. Set 300' of 9-5/8" casing and cement to surface; drill 8-3/4" hole to 4050' and set 7" casing. Air drill 4,050' to T.D. and run 4½" casing.
3. IES and Porosity logs will be run at T.D. All potential zones will be analyzed from surface to total depth, and if potentially commerical, 4½" casing or liner will be set, cemented and perforated.
4. After perforating, the productive zones will be fractured, if necessary.
5. Survey plats attached.
6. Spacing unit will be E½ of Section 16.
7. Gas is not dedicated.

NOV [illegible] OIL [illegible]

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 Robert D Ballantyne Robert D. Ballantyne TITLE Drilling Superintendent DATE November 2, 1979

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

A Bush

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

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.
PALMER OIL & GAS COMPANY	APACHE JVA	11

Unit Letter	Section	Township	Range	County
G	16	27N	2W	Rio Arriba

Actual Footage Location of Well:
1650 feet from the North line and 1650 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
7366	Mesaverde	Blanco-Mesaverde ext	320 Acres

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

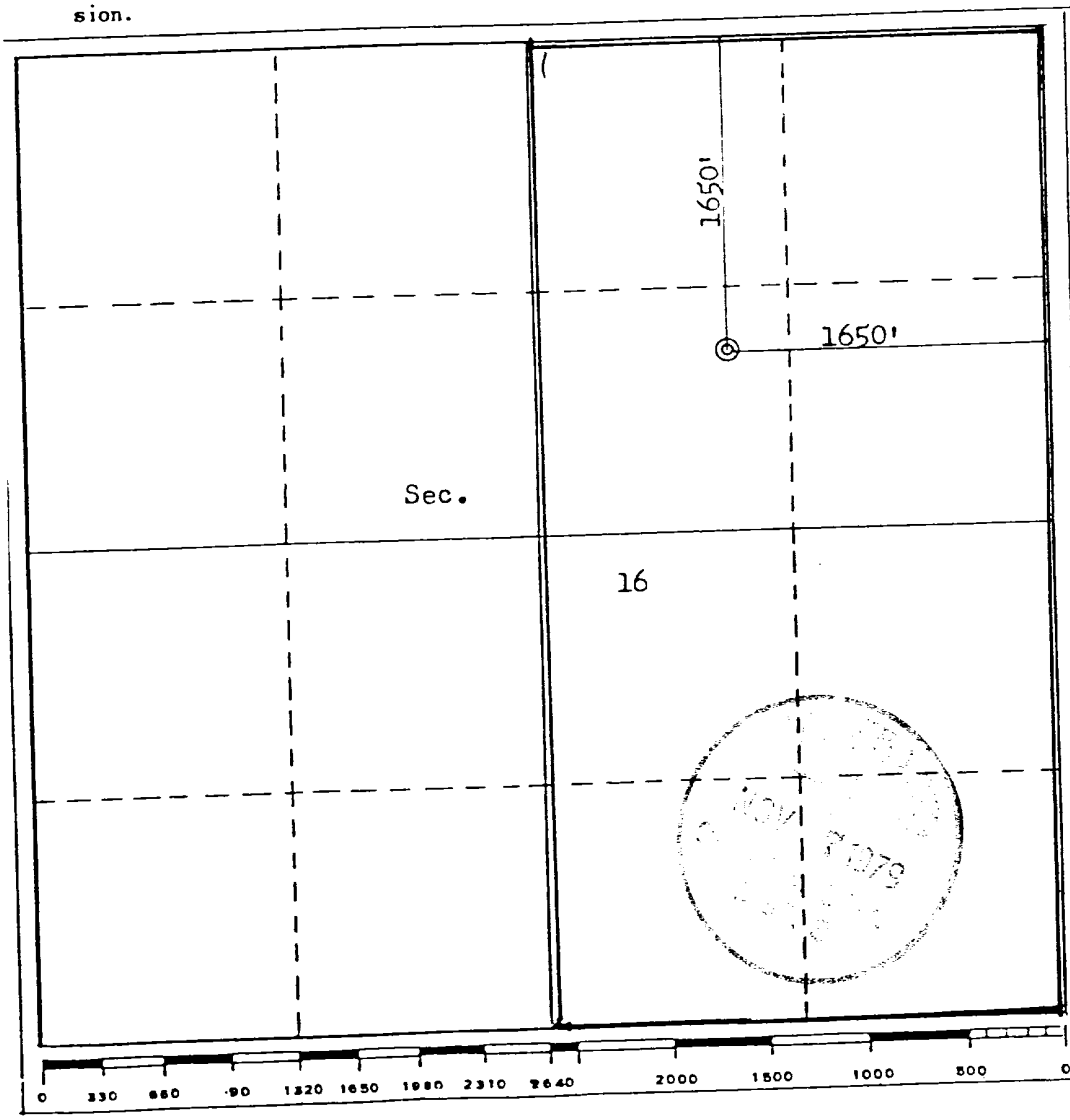
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

Robert D Ballantyne

Name: Robert D. Ballantyne

Position: Drilling Superintendent

Company: Palmer Oil & Gas Company

Date: November 2, 1979

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: August 27, 1979

Registered Professional Engineer and/or Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

THIRTEEN POINT PLAN OF DEVELOPMENT

For Surface Use for Palmer Oil & Gas Company's
Apache JVA #11
SW¼NE¼ Section 16-T27N-R2W
Rio Arriba County, New Mexico

1. Existing roads including location of the exit from the main highway.
   Existing roads include the main road which runs along the southern boundary of the Jicarilla Apache Reservation, turn north on good gravel road two miles to a fork, to the J30 Road, turn north for 1/2 mile on access road to the location. See Appendix 1, Pages 92,93, and 94 of Environmental Study dated October 10, 1976, and maps #1 and #2.

2. Planned access road.
   See Topographic Map #1.
   Access road will be bladed and not more than 25' wide.

3. Location of wells.
   See map #3.

4. Location of tank batteries, production facilities and production gathering and service lines.

   If this well is productive, it would be gas; therefore, the facilities would be the wellhead, tanks for oil and condensate, 10' x 10' water pit if necessary, separator and gas line to the well. The tanks and separator would be set within 150' of the well and the gas line would run adjacent and parallel to roads.

5. Location and type of water supply.
   Water will be purchased from the Stevenson Water Hole at Bassett Springs.

6. Source of construction materials.
   All construction material such as gravel, sand timbers, etc. will be purchased and hauled to the location. No water, sand or gravel will be used from this land.

7. Methods for handling waste disposal.
   1) Cuttings will be buried 3' below the surface.
   2) Drilling fluids will be left in a fenced, opern pit to evaporate.
   3) Produced oil or condensate (if any) will be stored in a tank.
   4) Portable toilet to be provided.
   5) Trash will be burned in burn pit.
   6) After pit area is sufficiently dry, cuttings will be pushed into pit and sub-soil will be placed on any remaining fluid and cuttings, then top soil, if any, will be placed over both pit and location area.

8. Anciliary facilities.
   No camps or airstrips will be used.

9. Wellsite layout.
   See Plat #3. Top soil, if any, will be stockpiled and reused. Pits will not be lined. The Blouie Pit will be constructed in such a manner so as to be long and narrow, extending in the direction of the gas or air flow from the Blouie line. Any trees on either side of this pit area within approximately 50', should be cleared so as not to cause a fire hazard if it is necessary to flare the gas. Any trees which must be destroyed will be counted by the BIA Forester and Palmer's representative and the Jicarilla Apache Tribe will be compensated for them.

10. Plans for restoration of surface.
    Upon completion of the well, all pits will be backfilled and top soil replaced and recontoured back to the original terrain. Pits will be backfilled as soon as they evaporate enough to permit such work. Should it be necessary to protect livestock or wild game, pits will be fenced and maintained until clean-up operations are commenced. Should oil accumulate on the pit, it will be removed and buried six feet deep or overhead flagging will

11. Other information.
    1) Topography - Drillsite and access low valley profile. See Pages 92, 93, and 94 of Environmental Study.
    2) Vegetation - Sparse grass, sagebrush, pinion trees and juniper.
    3) Land use - Land is used for grazing with no reservoir or water on this site. There are no known archaeological, cultural, or historical sites on this site. We plan to have the Cultural Resources Management of the NM State University do the archaeology work.

12. Lessee's or operator's representative.

Elledge Consulting and Production Company
1701 Bloomfield Highway
Farmington, New Mexico 87401

Harold W. Elledge, President — Office Phone (505) 327-1181

OR

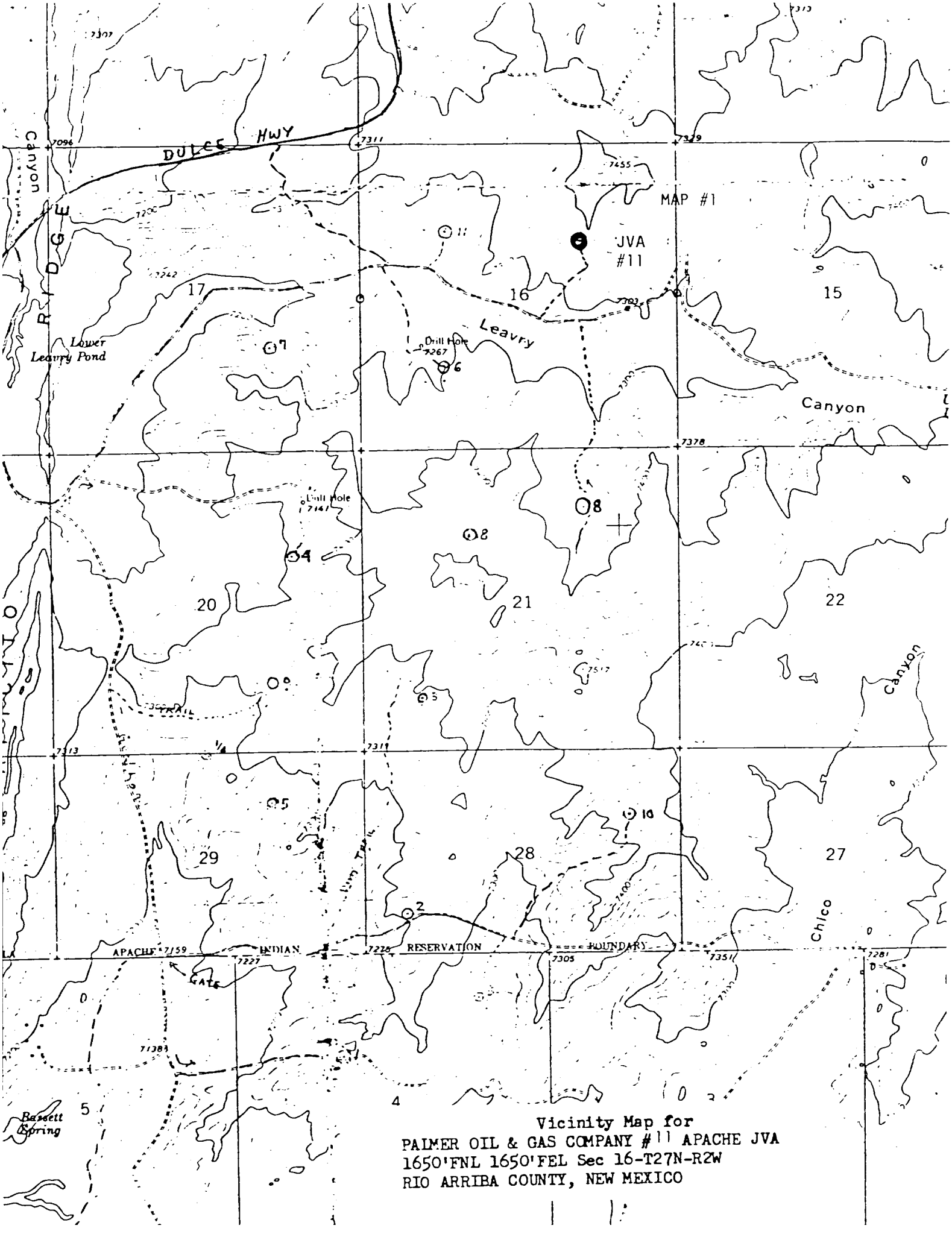
Robert D. Ballantyne
P. O. Box 2564
Billings, Montana 59103

Office Phone (406) 248-3151
Home Phone (406) 656-1304

13. 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 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 Four Corners Drilling Co. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Robert D Ballantyne

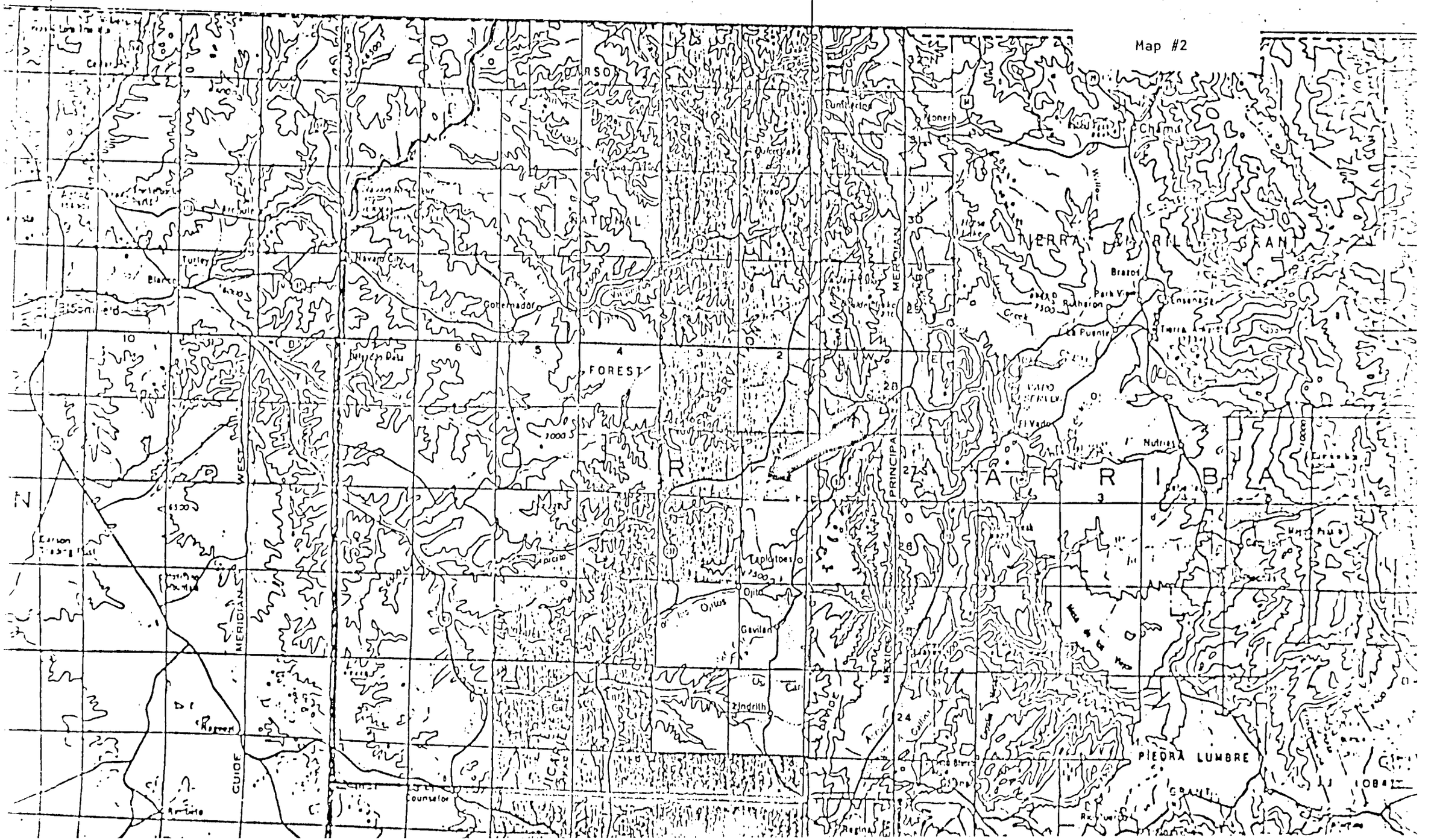
Robert D. Ballantyne
Drilling Superintendent



Vicinity Map for
PALMER OIL & GAS COMPANY #11 APACHE JVA
1650'FNL 1650'FEL Sec 16-T27N-R2W
RIO ARRIBA COUNTY, NEW MEXICO

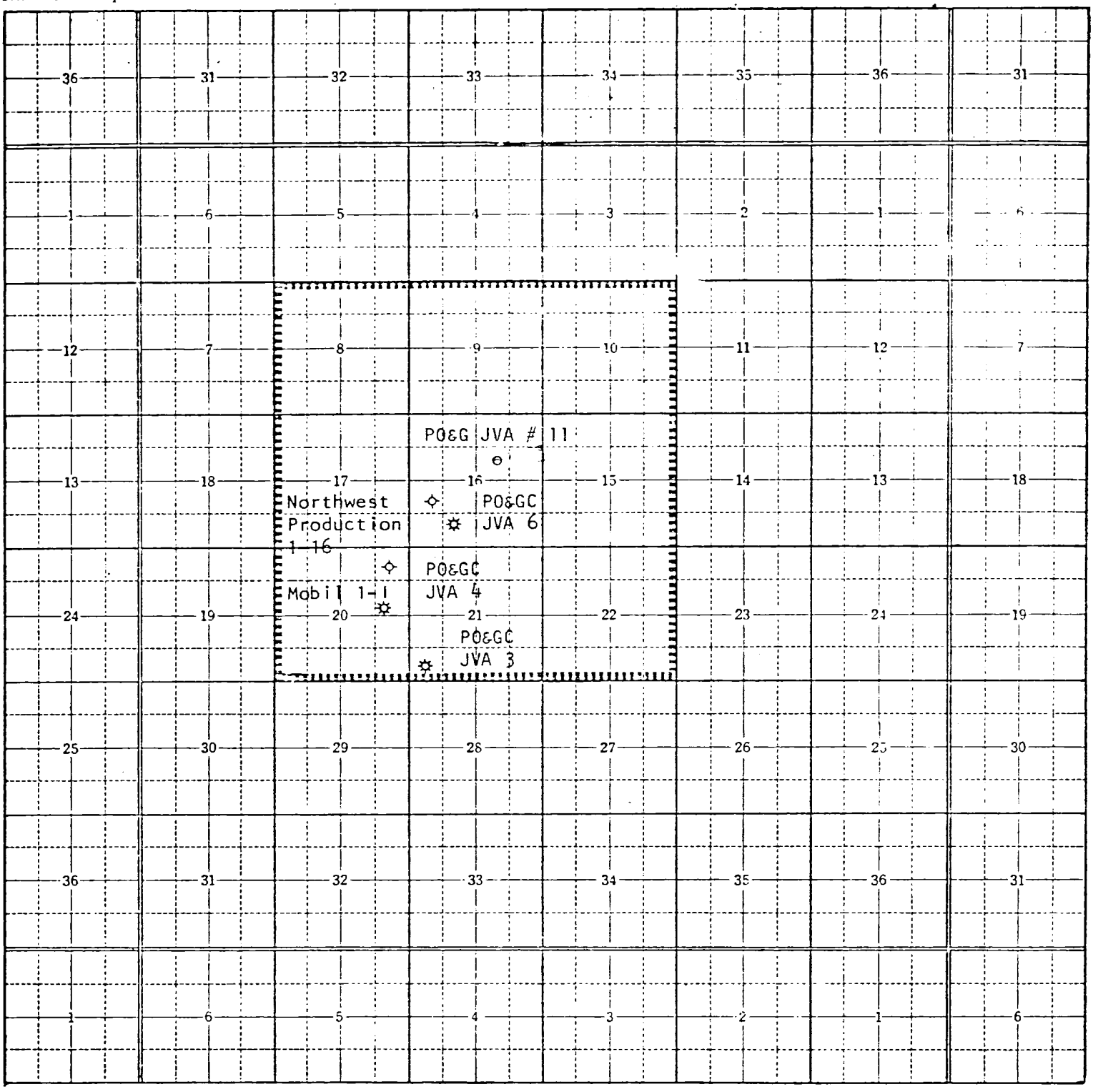
Apache JVA #11
SW¼NE¼ 16-T27N-R2W

Map #2



Township 27N, Range 2W, County Rio Arriba, State New Mexico

Island Township Plat



JVA 11
T27N-R2W, Sec. 16
SW¼NE¼

Map #3

Proposed well 9A is to be located 2,050 feet from the north line and 800 feet from the west line of section 16

at an elevation of approximately 7,235 feet. The well will thus lie just north of the main Leavry Canyon road and access

Figure 33
Looking North Across the Proposed 9A Location

to the location will be directly from that road. If this well proves productive, it will be connected to the existing gathering system by approximately 100 feet of pipeline running south to the flow line from well 8B along the Leavry Canyon road.

Proposed well 9B will lie 1,300 feet from the south line and 1,400 feet from the east line of section 16. This well will lie alongside an existing trail south of Leavry Canyon. This trail is usable over most of its length at

the present time but it will be necessary to rebuild the Leavry Canyon crossing before building the location. This trail continues on to the 8B location and will also be used as the access route for that well. If the 9B location proves productive, it will be connected to the 8B flow line which crosses the edge of this location.

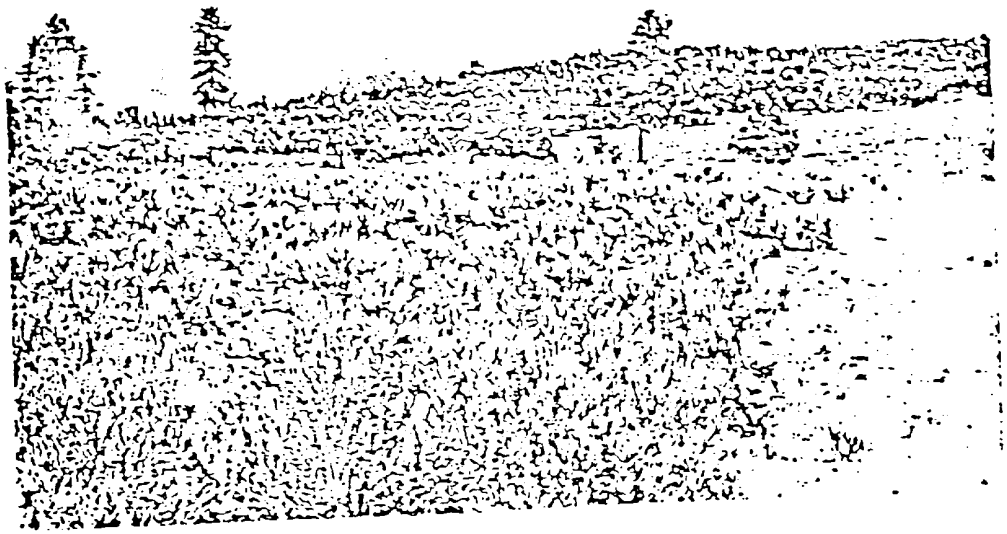
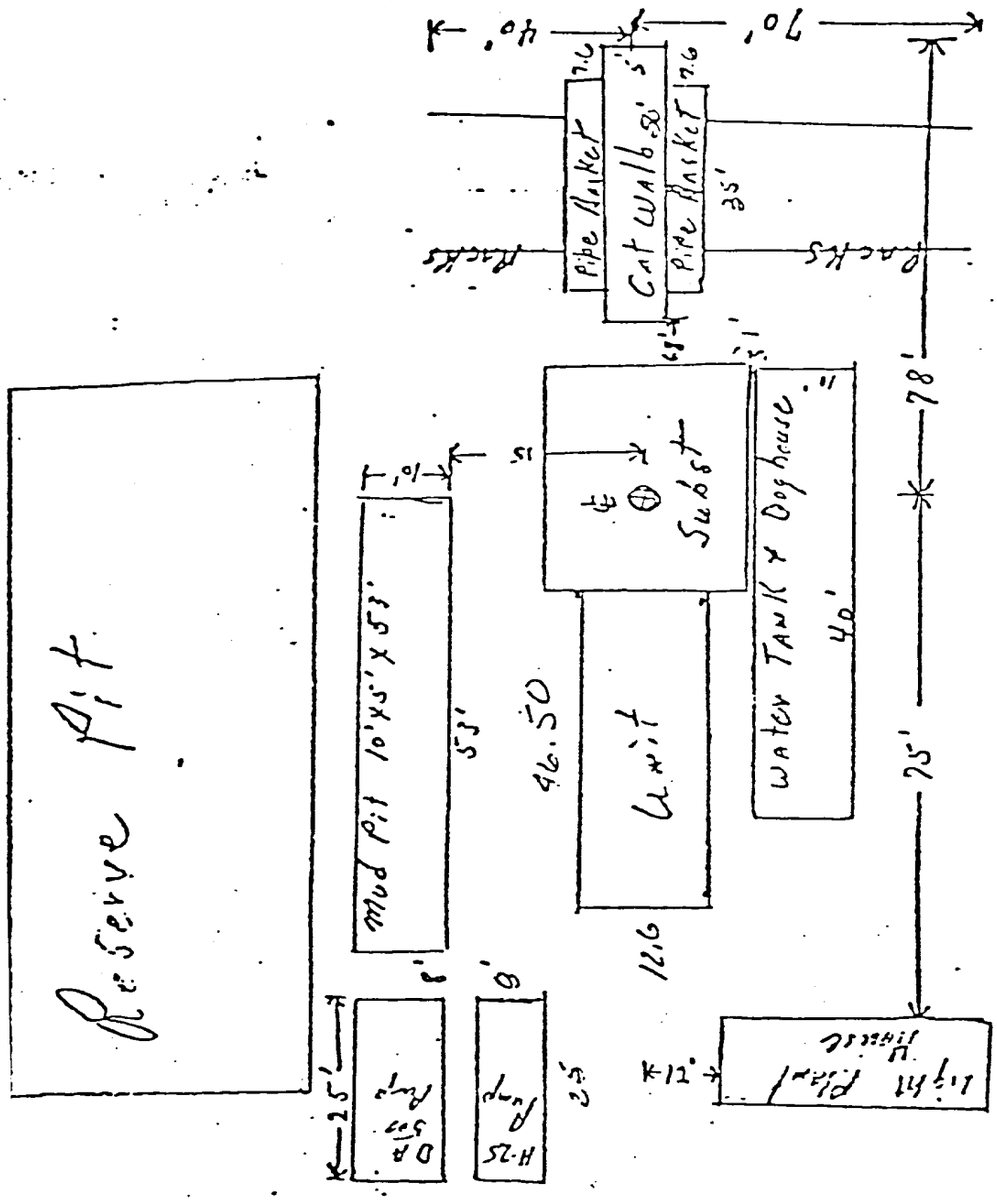


Figure 34
Looking North Across the Proposed 9B Location

707 E. BROADWAY
FARMINGTON, NEW MEXICO 87401
TELEPHONE: (505) 327-5122



Apache JVA #11
SW¼NE¼ 16-T27N-R2W

PLAT #3

EVEN POINT WELL CONTROL PLAN

PALMER OIL & GAS COMPANY
Apache JVA #11
SW¼NE¼ Section 16-T27N-R2W
Rio Arriba County, New Mexico

1. Surface Casing: 9-5/8" 36#/ft., Grade K-55, Short T&C, set at 300' and cemented with pump and plug method back to surface.

2. Casinghead Flange: 10" 900 S adapted to 1500 psig W. P. Larkin (or equivalent) casinghead with two 2" 1500 psi L.P. outlets.

3. 7" intermediate casing will be set to approximately 4,050' to case off any possible water from the Picture Cliff formation so as the remaining hole can be air drilled.

4. Blowout Preventor: A 10" 3000 psig W. P. Double gate hydraulic Shaffer BOP (or equivalent) with drill pipe rams and blind rams. All fill, kill, and choke lines will be minimum of 2" 2000 psi working pressure. The rams will be closed daily and checked for proper operaion.

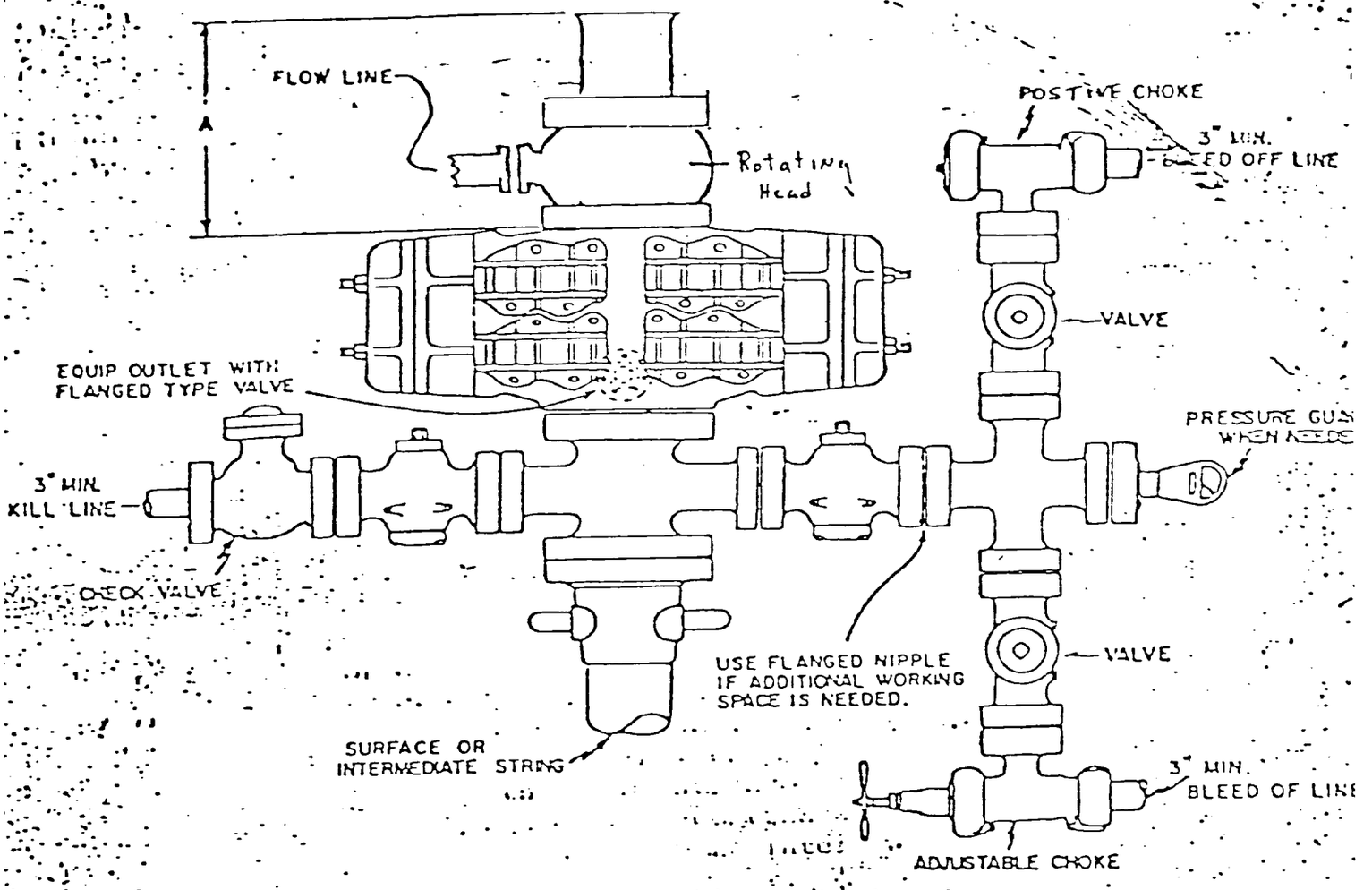
5. Auxiliary Equipment: a) Drill pipe floats will be allowed at contractor's discretion; b) Visual and manual monitoring of mud system will be maintained.

6. Anticipated bottom hole pressure is less than 1800 psi at 6350' or a gradient of .277 psi/ft.

7. Well will be drilled with water base mud system with 8.8 - 9.0 ppg weight 35-45 seconds viscosity to 4,050' - Air drilling from 4,050' to T.D.

PALMER OIL & GAS COMPANY

Robert D Ballantyne
Robert D. Ballantyne


FLOW LINE
A
Rotating Head
POSITIVE CHOKE
3" MIN.
BLEED OFF LINE
VALVE
EQUIP OUTLET WITH FLANGED TYPE VALVE
PRESSURE GUA
WHEN NEEDE
3" MIN.
KILL LINE
CHECK VALVE
USE FLANGED NIPPLE IF ADDITIONAL WORKING SPACE IS NEEDED.
VALVE
SURFACE OR INTERMEDIATE STRING
3" MIN.
BLEED OF LINE
ADJUSTABLE CHOKE