

UNITED STATES
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
 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 SE $\frac{1}{4}$ NW $\frac{1}{4}$ - 985' FSL & 800' FWL
 At proposed prod. zone same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Approximately 6 miles North of Ojito

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 800

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL 220 292.21

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. First Well 6300'

19. PROPOSED DEPTH

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 7206' GR

22. APPROX. DATE WORK WILL START* March 1, 1977

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"	24#	300'	225 sacks
7-7/8"	4-1/2"	10.5#	6,300'	250 sacks

- Palmer Oil & Gas Company will drill a 6,300' Mesaverde test in the SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 30-27N-2W.
- Well to be drilled by rotary tools. Set 300' of 8-5/8" casing and cement to surface: drill 7-7/8" hole to T.D.
- IES and Porosity Logs will be run at T.D. All potential zones will be analyzed from SURFACE to T.D., and if potentially commercial, 4 $\frac{1}{2}$ " casing will be set, cemented and perforated.
- After perforating, the productive zones will be fractured, if necessary.
- The gas is not dedicated.
- A Shaffer 8" - 3000 psi BOP with blind and pipe rams to be used.
- The survey plat will be forwarded when completed by our surveyor.

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 [Signature] TITLE Land Manager DATE January 21, 1977
 (This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

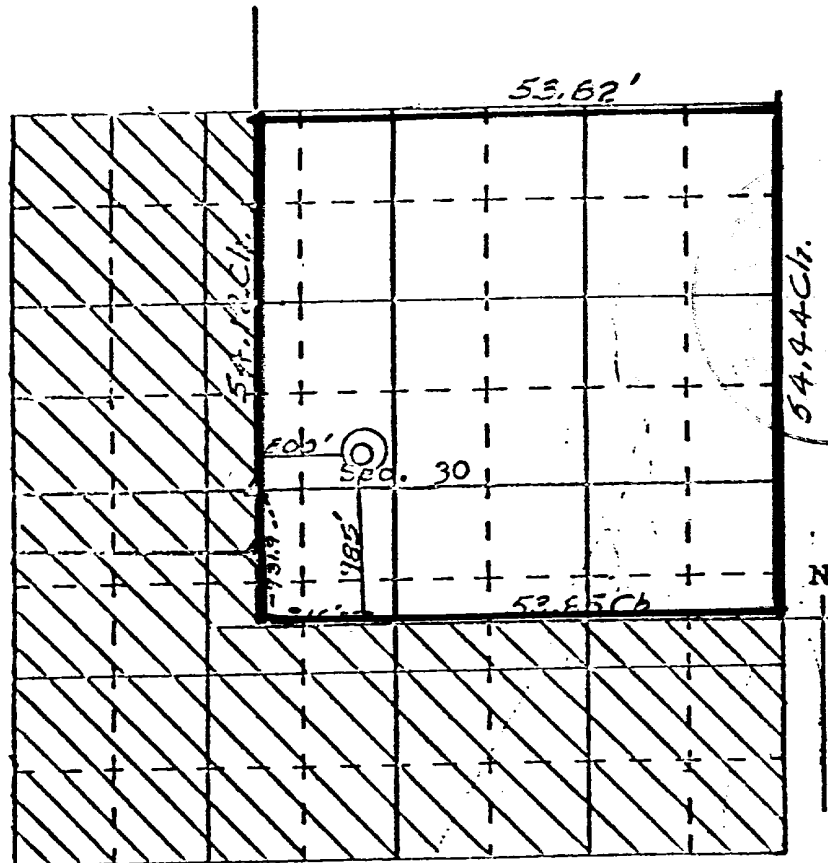
All distances must be from the outer boundaries of the Section

Operator PALMER OIL & GAS			Lease APACHE J V A		Well No 1
Unit Letter F	Section 30	Township 27 NORTH	Range 2 WEST	County RIO ARRIBA	
Actual Footage Location of Well: 305 feet from the SOUTH line and 800 feet from the WEST line					
Ground Level Elev. 7206	Producing Formation Mesaverde	Pool Blanco Mesaverde	Dedicated Acreage: 292.21 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 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 L. C. Campbell
 Position Land Manager
 Company Palmer Oil & Gas Company
 Date February 8, 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.

3 February, 1977
 Date Signed
James P. Leese
 Registered Professional Engineer
 and/or Land Surveyor
James P. Leese

1463
 Certificate No.

TWELVE POINT PLAN OF DEVELOPMENT

For Surface Use for Palmer Oil & Gas Company's
Apache-JVA 1
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 30-T27N-R2W
Rio Arriba County, New Mexico

1. Existing roads including location of the exit from the main highway.
See Appendix I, Page 76 of Environmental study dated October 10, 1976,
and Plat No. 1 (Topographic Map) attached.
2. Planned access road.
See Topographic Map attached, and refer to Page 78 of Environmental Study.
3. Location of wells.
See attached Plat No. 2
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 produced water and condensate, if any, 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 per Page 78 of Environmental Study.
5. Location and type of water supply.
No arrangement for water has been made at this time.
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, open 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. Ancillary facilities.
No camps or airstrips will be used.
9. Wellsite layout.
See Plat No. 3. - Top soil, if any, will be stockpiled and reused. Pits will not be lined.

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 6' deep or overhead flagging will be employed to protect wildlife.

11. Other Information.

- 1) Topography - Drillsite and access low valley profile. See Page 76 of Environmental study.
- 2) Vegetation - Sparse grass, sagebrush.
- 3) Land use - Land is used for grazing with no reservoir or water on this site. There are no known archeological, cultural, or historical sites on this site, but some cultural remains are located in the wooded area west of the location.

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

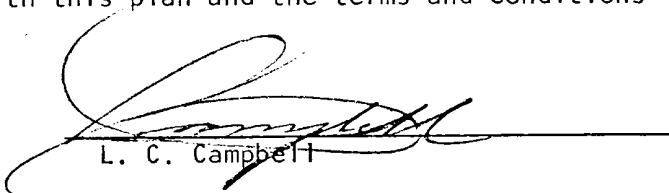
OR

Robert 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 Cardinal Drilling Company, and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is proposed.

Date: January 21, 1977


L. C. Campbell

APPENDIX I

Descriptions of Proposed Well Locations

The following descriptions are given in the order in which the wells are currently scheduled to be drilled. The locations of the wells and proposed access routes are indicated in Figure 2 of the report. A composite aerial photograph of the joint venture site is presented below as Figure 17. All wells are to be located in Township 27 North, Range 2 West, N.M.P.M.

Proposed well 1 (Figure 15) to be located ^{985'}~~1,050~~ feet from the south line and 800 feet from the west line of section 30. The proposed access road will be approximately



Figure 15
Looking Northeast Across the Proposed 1 Location

2,500 feet long and will follow existing trails from a well location in the Northeast 1/4 of Section 1, Township 26 North, Range 3 West, N.M.P.M. Two trails leave the existing location, one takes off from the western edge of the location through a wooded area and the other runs up the sagebrush covered valley bottom to the east of the location. It is important that the access to the new location be by the easternmost route as some cultural remains were encountered in the woods to the west. If the new well is productive, a pipeline will be laid parallel and adjacent to the access road to connect with the existing gathering system at the location in section 1. The elevation of the proposed location is approximately ^{7,206}~~6,195~~ feet.

Proposed well 2 is to be located 1,500 feet from the south line and 1,700 feet from the east line of section 19 will have an elevation of approximately 7,255 feet. As the proposed location can be reached by existing trails, necessary road construction would be limited to widening and improvement of those trails. If this well is productive, a buried pipeline will be laid northward parallel and adjacent to the access road for about 3,200 feet, then northwestward along another road for approximately 1,500 feet, then southwestward for about a mile along another road to an existing well in the northeast 1/4 of section 36, Township 27 North, Range 3 West, N.M.P.M.

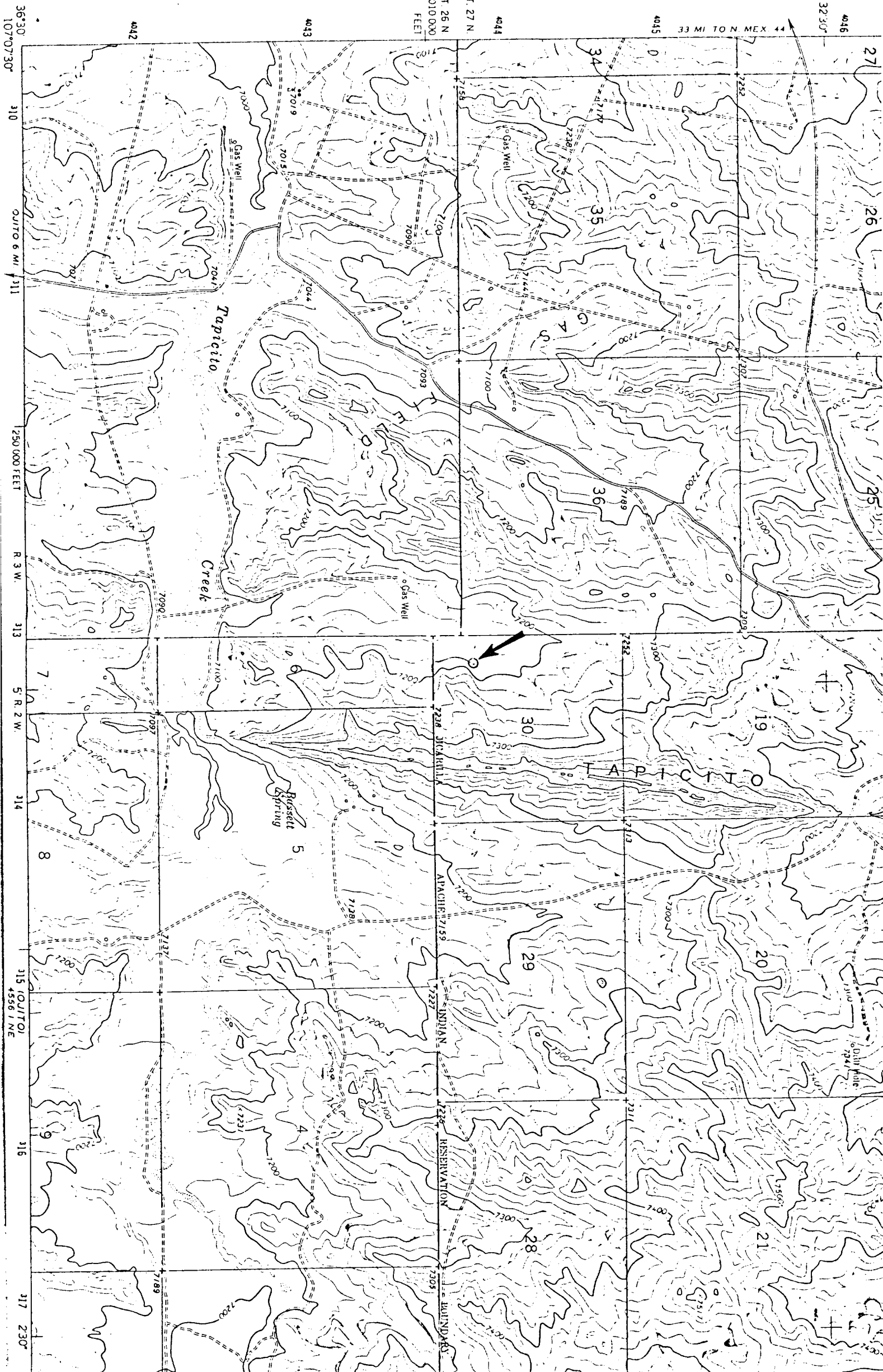
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PLAT NO. 2



SEVEN POINT WELL CONTROL PLAN

PALMER OIL & GAS COMPANY
Apache-JVA 1
SE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 30-T27N-R2W
Rio Arriba County, New Mexico

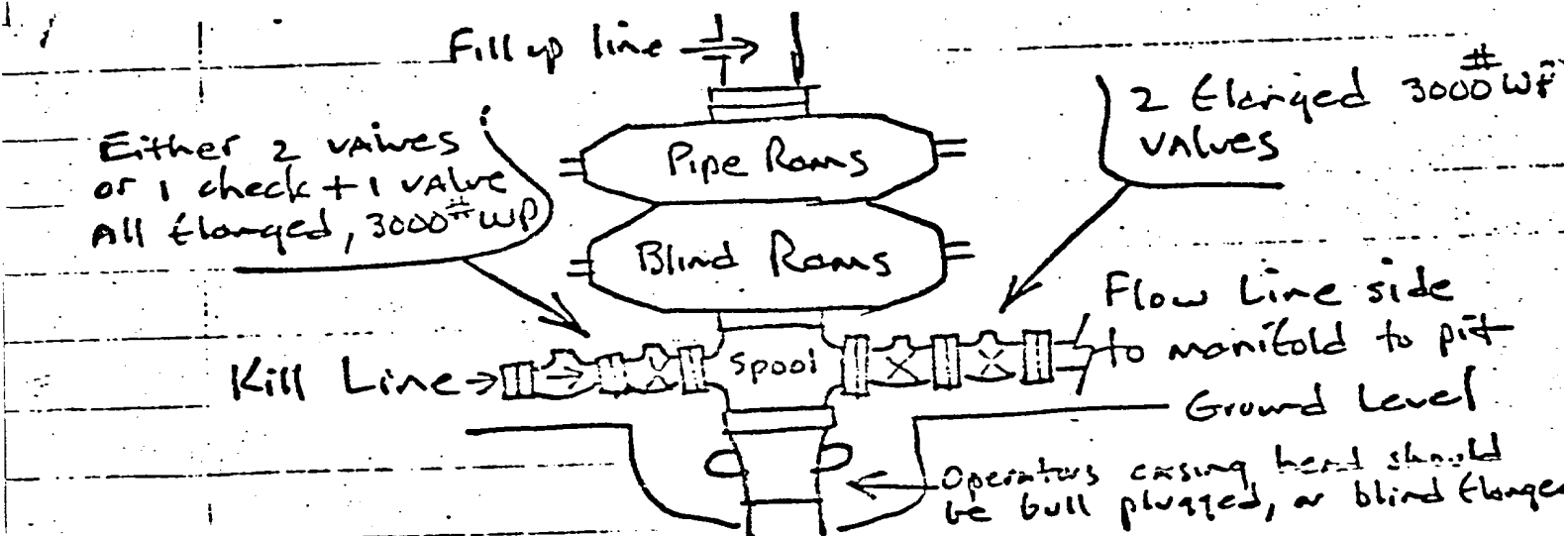
1. Surface Casing: 8-5/8" 24#/ft., Grade K-55, Short T&C, set at 300' and cemented with pump and plug method back to surface.
2. Casinghead Flange: 8-5/8" X 10-3/4" top 1500 psig W. P. Larkin (or equivalent) casinghead with two 2" 1500 psi L. P. outlets.
3. No intermediate casing is planned at this time.
4. Blowout Preventor: An 8" 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 operation.
5. Auxillary Equipment: a) Drill pipe floats will be allowed at contractor's discretion. b) Visual and manual monitoring of mud system will be maintained. c) A full opening stabbing valve will be kept on the rig floor at all times to use when kelly is not in the drill string.
6. Anticipated bottom hole pressure is less than 1800 psi at 6300' 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, and water loss controlled to 8 cc from 4000' to total depth.

PALMER OIL & GAS COMPANY

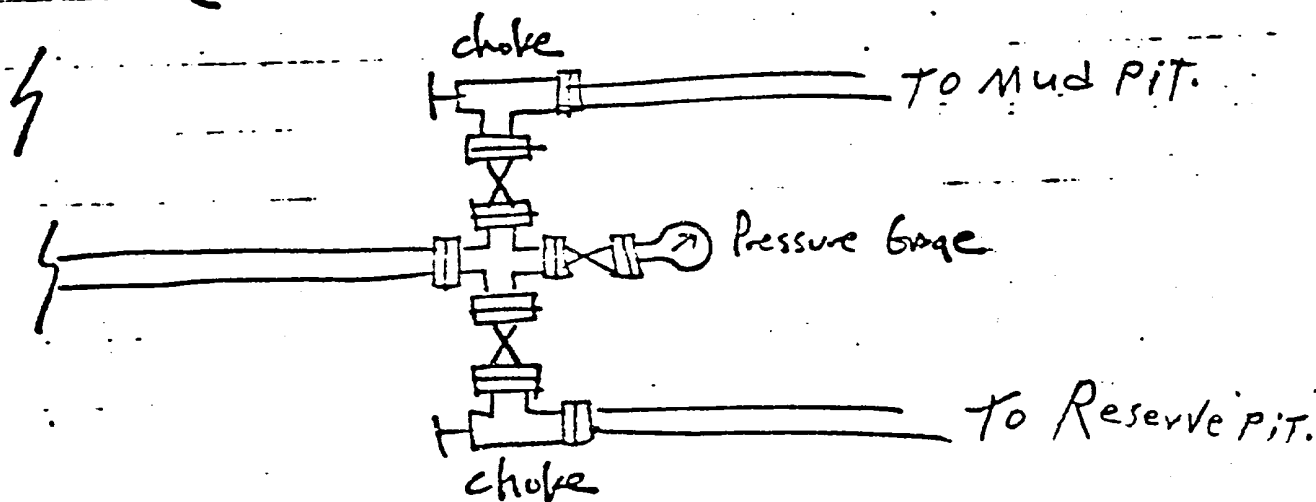
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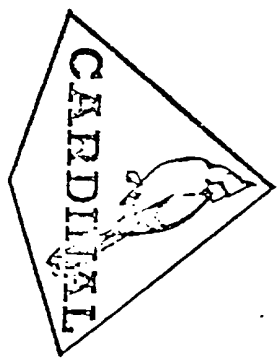
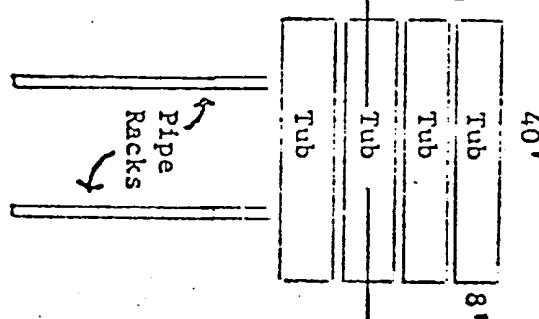
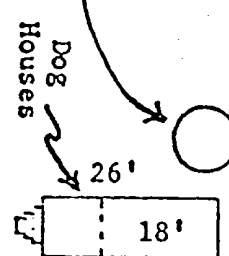
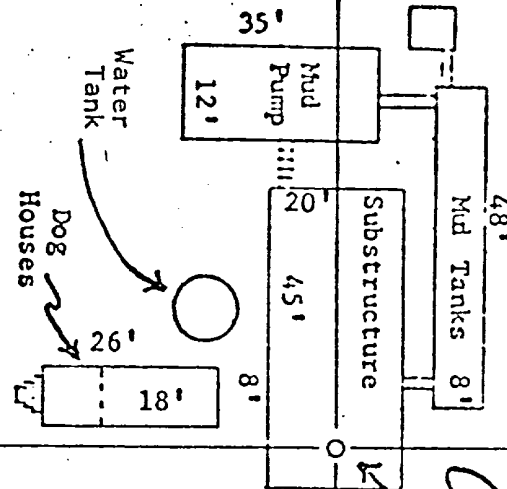
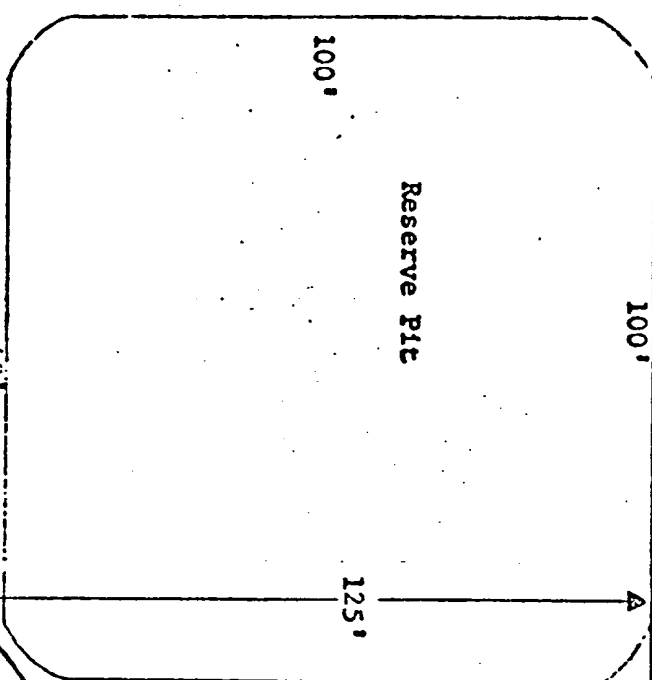
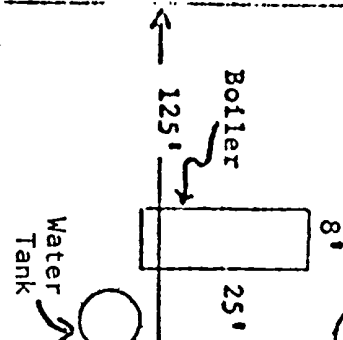
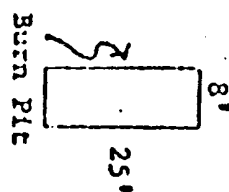
BLOWOUT PREVENTOR EQUIPMENT



Detail Flow Line Side (manifold)
(All fittings flanged & WP at 3000#)



200'



CARDINAL PETROLEUM COMPANY
Rt. #4

275'

200'

275'