

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

DEPCO, Inc.

3. ADDRESS OF OPERATOR

1000 Petroleum Building--Denver, CO 80202

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

At surface

1120' FNL, 1525' FEL (NW $\frac{1}{4}$ - NE $\frac{1}{4}$) Sec. 5

At proposed prod. zone

Same

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

25 miles SE of Blanco, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

1120'

(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.

800'

16. NO. OF ACRES IN LEASE

2248.40

19. PROPOSED DEPTH

5300'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

E 320 321.45

20. ROTARY OR CABLE TOOLS

Rotary

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

6619' GR; 6631' KB (Est)

22. APPROX. DATE WORK WILL START*

October 1, 1980

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY
12-1/4"	8-5/8"	24#, K55	300'	210 sx (Circulate)
7-7/8"	5-1/2"	15.5#, K55	5300'	875 sx (Two-Stage)

1. Drill 12 $\frac{1}{4}$ " surface hole and set surface casing as above.
2. Drill 7-7/8" hole to 5300' TD.
3. Run DIL-SFL w/SP and CNL-FDC w/GR logs.
4. Set 5 $\frac{1}{2}$ " casing string if warranted, or P&A in compliance with regulations.
5. The location will be reshaped to original topography. Stockpiled topsoil will be respread and the area reseeded.

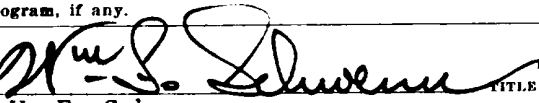
Exhibits attached to this APD

"A" - Well Location Plat; "B" - Ten Point Compliance Program; "C" - Blowout Preventor Diagram; "D" - Multipoint Surface Use Requirements; "E" - Road Access Map to area; "F" - Topographic Map of Area, Road Access, and wells within one mile radius; "G" - Drilling Location Plan, Contours, Cuts and Fills; "H" - Drilling Rig and Production Facilities Plan; "I" - Treatment Program Plan; "J" - Archeology Report.

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


W. F. Schwenn

TITLE

District Superintendent

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

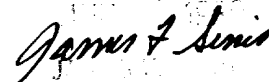
APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

AS AMENDED

DATE



*See Instructions On Reverse Side

BIAA000

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-107
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

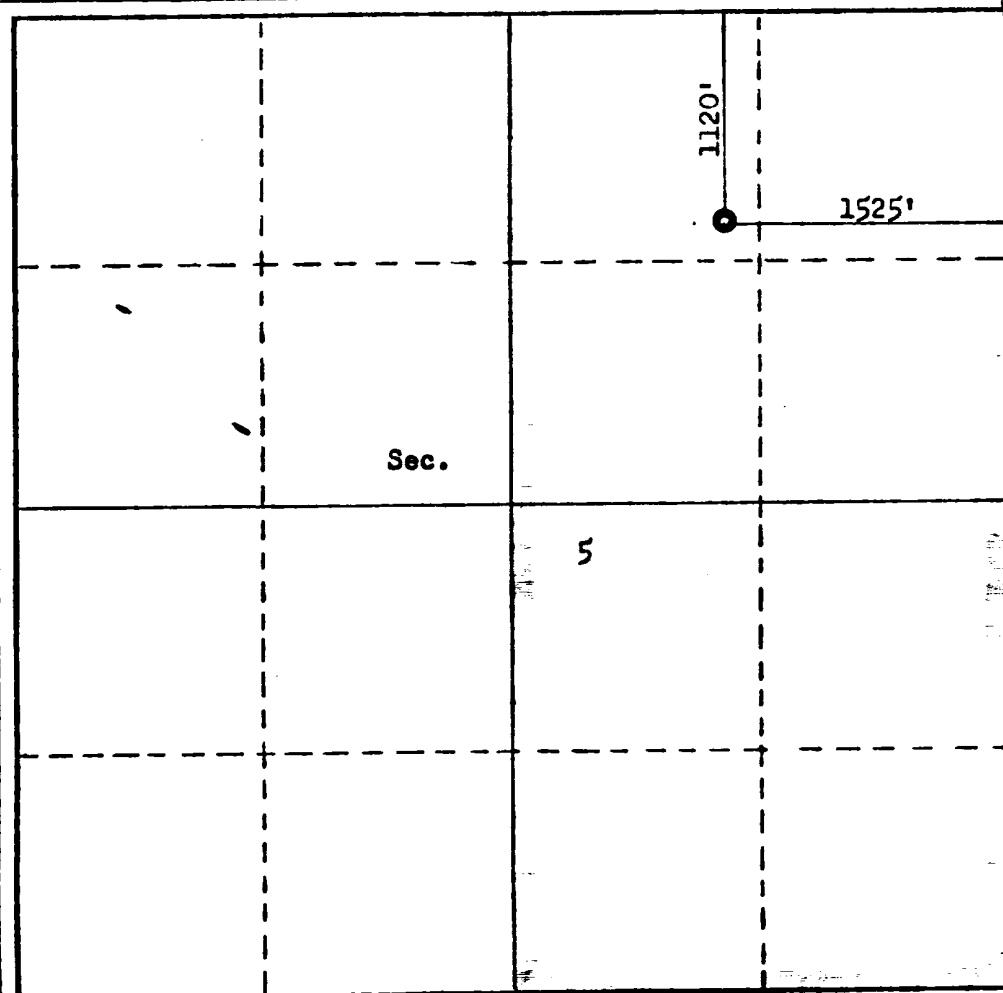
Operator DEPCO INCORPORATED			Lease BURNS-FEDERAL		Well No. 2
Unit Letter B	Section 5	Township 26N	Range 7W	County Rio Arriba	
Actual Footage Location of Well: 1120 feet from the North line and 1525 feet from the East line					
Ground Level Elev. 6619	Producing Formation Mesa Verde		Pool Blanco Mesaverde		Dedicated Acreage: 321.45 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.

W. F. Schwenn

Name

W. F. Schwenn

Position

Production Superintendent

Company

DEPCO, Inc.

Date

4-30-80

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

April 15, 1980

Registered Professional Engineer
and/or Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No.

2050

DEPCO, Inc.
Burns Federal No. 2
NW¼ NE¼, Sec. 5-T26N-R7W
Rio Arriba County, New Mexico

Lease No. SF079162

1. Surface formation - San Jose of Tertiary Age

2. Estimated geologic tops:

Pictured Cliffs - 2781' KB
Chacra - 3686' KB
Cliff House - 4476' KB
Point Lookout - 5086' KB

3. Anticipated depth of oil, gas, water, or other mineral-bearing formations:

Water - Ojo Alamo 1317' est
Coal - 2741'
Gas - Pictured Cliffs 2781'
Gas - Chacra 3686'
Gas - Point Lookout 5086'

4. Proposed casing program:

Surface - 8-5/8" 24# K55 STC 0' - 300'
Production - 5-1/2" 15.5# K55 STC 0' - 5300'

5. Operators minimum specification for pressure control equipment requires a 10" = 3000 psi single hydraulic blowout preventor. The BOP will be hydraulically tested to full working pressure after nipping up surface pipe and after any use under pressure. Pipe rams will be operationally checked each 24-hour period. The blind rams and annulus preventor will be checked each time the pipe is pulled out of the hole. All testing will be recorded on the daily drilling report. Accessories to the BOP will include upper and lower kelly cocks, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. Proposed mud program:

<u>Depth</u>	<u>Type Mud</u>	<u>Wt.</u>	<u>Visc.</u>	<u>WL</u>
0 - 325'	Spud Mud	-	-	-
325 - 5000'	Water	8.6-8.9	-	-
5000 - 5300'	Low solids	9.0-9.5	38-42 60-70 (For logging)	8.0-10.0cc

7. Auxiliary equipment will consist of:

- Kelly cock
- Float above bit
- Visual monitoring of mud tanks
- Sub with valve to fit drill pipe and collars

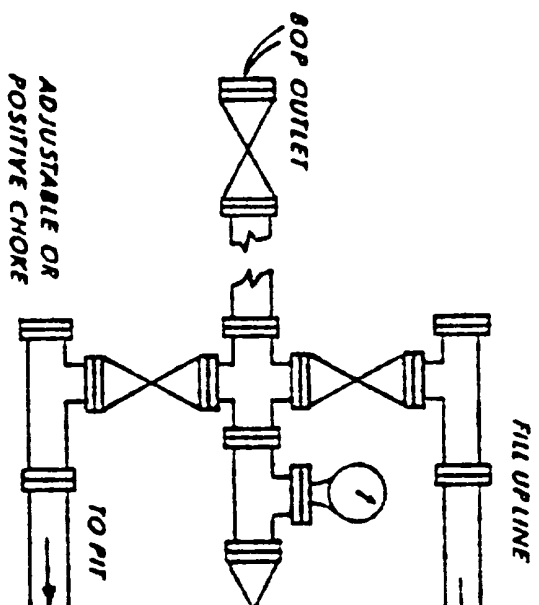
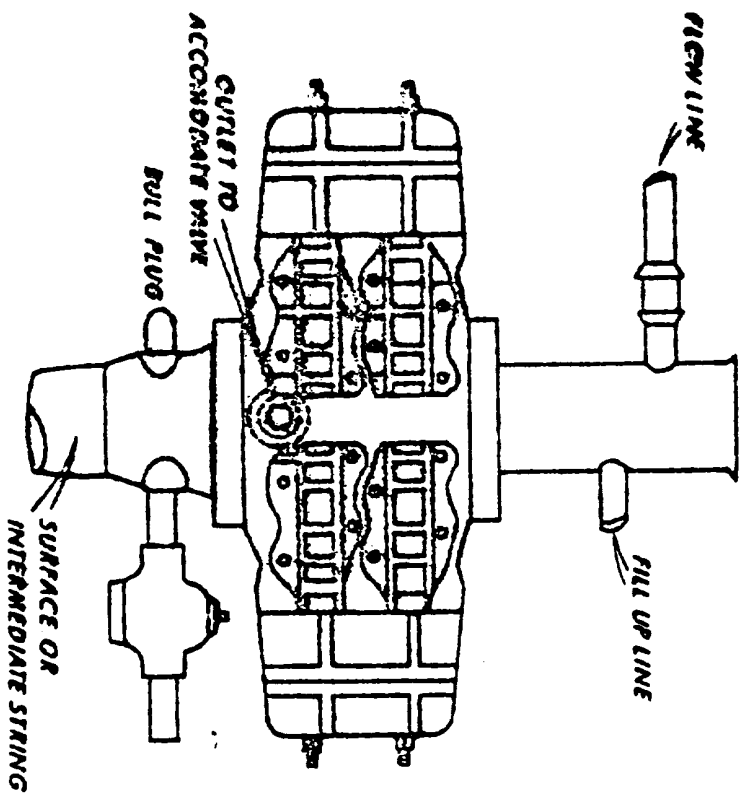
8. No coring or drill-stem tests are planned.

The anticipated logging program is as follows:

DIL-SFL w/SP	TD - Surface Pipe
CNL-FDC w/GR	TD - Surface Pipe

Casing will be set and perforated in the Mesaverde and Pictured Cliffs formations if circumstances warrant. The perforated section in the Mesaverde formation will be treated with 75,000+ lbs of sand while the Pictured Cliffs formation will be treated with 1000+ gallons of acid and 40,000+ lbs of sand. Tubing will be run and the well cleaned up and tested.

9. No abnormal pressures, temperatures, hydrogen sulfide or other hazards are expected or known to exist at these depths in this area.
10. The anticipated starting date is during late summer or early fall 1980 depending upon rig availability. Drilling operations should require approximately eleven days and completion operations are expected to require an additional ten days.



1. B1
2. A1
3. A1
4. A1
5. A1
6. KI
7. U1
8. R1
9. W
10. W

Exhibit "D"

Multipoint Surface Use and Operations Plan

1. Existing Roads:

- A. The proposed well site is shown on Exhibit "A".
- B. The site is located 6 miles west of the Lowry Camp as shown on Exhibits "E" and "F".
- C. Final access roads into the site are coded green.
- D. This well is classified as development and roads are shown on Exhibits "E" and "F".
- E. The existing gravel roads will be maintained during the drilling phase of this well. No improvements are planned.

2. Planned Access Roads:

- (1) Width will not exceed 20 feet.
- (2) Maximum grades will not exceed 5%.
- (3) No turnouts are to be constructed.
- (4) No additional drainage construction is deemed necessary other than minor ditching.
- (5) No culverts, cuts, or fills are required.
- (6) The use of surfacing material is not planned at this time.
- (7) No gates, cattleguards, or fence cuts are necessary.
- (8) The new access road into the location is flagged.

3. Location of Existing Wells:

- A. All existing wells within a one-mile radius are shown on Exhibit "F".
 - (1) Water wells - No shallow, domestic nor deep high-volume wells are known to be in the immediate area.
 - (2) Abandoned wells: MKL 16, NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 5-T26N-R7W.
 - (3) Temporarily abandoned wells: MKL No. 1, SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 5-T26N-R7W
 - (4) Disposal wells - none
 - (5) Drilling wells - none
 - (6) Producing wells - as shown on Exhibit "F"
 - (7) Shut in wells - MKL No. 15, NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 5-T26N-R7W
 - (8) Injection wells - none
 - (9) Monitoring or observation wells for other resources - none

4. Location of Existing and/or Proposed Facilities:

A. Existing facilities owned or controlled by operator within a one-mile radius of this location.

- (1) Tank batteries at following Basin Dakota wells:
 - Burns Federal No. 1 NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 5-T26N-R7W
 - Miles Federal No. 1 NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 5-T26N-R7W
- (2) Two producing Basin Dakota Wells:
 - Burns Federal No. 1 NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 5-T26N-R7W
 - Miles Federal No. 1 NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 5-T26N-R7W

Seven South Blanco P. C. Wells:

MKL No. 2 NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 5-T26N-R7W
MKL No. 3 SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 6-T26N-R7W
MKL No. 7 NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 8-T26N-R7W
MKL No. 13 NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 7-T26N-R7W
MKL No. 14 SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 5-T26N-R7W
MKL No. 16X SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 5-T26N-R7W
MKL No. 19 NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 8-T26N-R7W

- (3) No oil gathering lines
 - (4) No gas gathering lines
 - (5) No injection lines
 - (6) No disposal lines
- B. Proposed facilities in the event of a producing well are shown on Exhibit "H".
- (1), (2) As shown on Exhibit "H".
 - (3) Area to be used will be levelled. Native material will be used in the construction of the location.
 - (4) The pit will be fenced and flagged to discourage the entry of livestock, wildlife and waterfowl.
- C. All disturbed areas not needed for operations will be rehabilitated in the manner described in Item 10.

5. Location and Type of Water Supply:

- A. Water will be obtained from local water sump in Largo Canyon or purchased from private sources.
- B. Water will be hauled by truck.
- C. No water well will be drilled on the lease.

6. Source of Construction Materials:

- A, B, C, and D - No construction material is needed except as previously noted. Any materials required will be purchased from private sources.

7. Methods for Handling Waste Disposal:

- (1) Drill cuttings will be buried in the reserve pit.
- (2) Drilling fluids will be placed in the reserve pit and allowed to evaporate.
- (3) Produced fluids such as oil and formation water will be collected in a test tank.
- (4) Sewage will be contained and a suitable chemical will be used to decompose waste.
- (5) Garbage and other waste material will be placed in a trash pit, burned and later buried.
- (6) Upon completion of drilling, all trash and liter will be buried in the trash pit. The reserve pit will be fenced until dry at which time it will be backfilled.

8. Ancillary Facilities:

- A. No camps or airstrips are planned.

9. Well Site Layout:

- A. See Exhibits "G" and "H"
 - (1) See Exhibit "G"
 - (2) See Exhibit "H"
 - (3) See Exhibit "H"
 - (4) The reserve pit will be unlined.

10. Plans for Surface Restoration:

- (1) All topsoil that is stripped and stockpiled will be replaced and the site will be backfilled, levelled, and contoured. Waste will be buried or hauled away upon completion of drilling.
- (2) Rehabilitation will consist of resspreading and contouring stockpiled topsoil. Revegetation will consist of planting seed mix specified by BLM or landowner. If the well is dry, a dry hole marker will be erected, and the access road will be plowed, ripped, and reseeded as requested.
- (3) Prior to rig release, the reserve pit will be fenced and so maintained until the pit is dry enough to backfill.
- (4) Oil in the reserve pit will be removed and the pit will be flagged to discourage livestock, wildlife, and waterfowl from entry.
- (5) Rehabilitation will begin upon cessation of drilling operations.

11. Other Information:

- (1) The topography of the area is dominated by precipitous 600-foot cliffs which form the walls of Largo Canyon. The surface soil is composed of sand from the San Jose formation which is exposed in the walls of the canyon. Local vegetation includes juniper, pinon, sagebrush and rabbit brush. Wildlife consists of coyotes, rabbits, and an occasional deer.
- (2) The area is used for grazing cattle. The surface owner of record is:
Bureau of Land Management
P. O. Box 1449
Santa Fe, New Mexico 87501
- (3) The nearest known water source is from man-made water sumps dug in the floor of Largo Canyon. The Kaime Ranch approximately one-mile to the southwest constitutes the only known occupied dwelling in the area. No recognized archeological, historical, or cultural sites other than those referred to in the attached archeological report are known to exist in the immediate area.

12. Lessee's or Operators Representative:


- (1) Mr. Fred Crum
Box 400
Aztec, New Mexico 87410
(505) 334-6003
- (2) Mr. W. F. Schwenn
DEPCO, Inc.
1000 Petroleum Building
Denver, Colorado 80202
(303) 292-0980

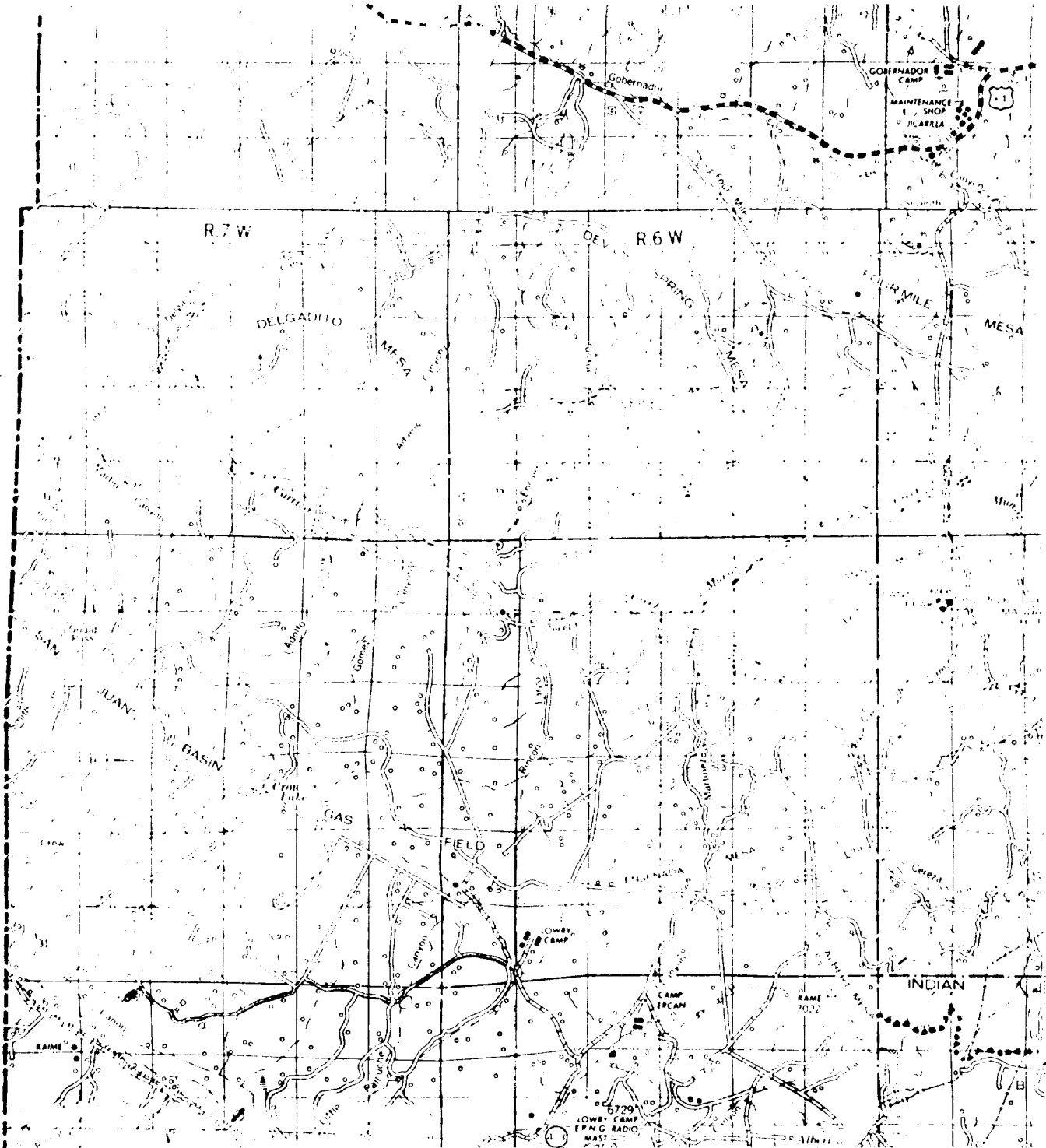
13. Certification:

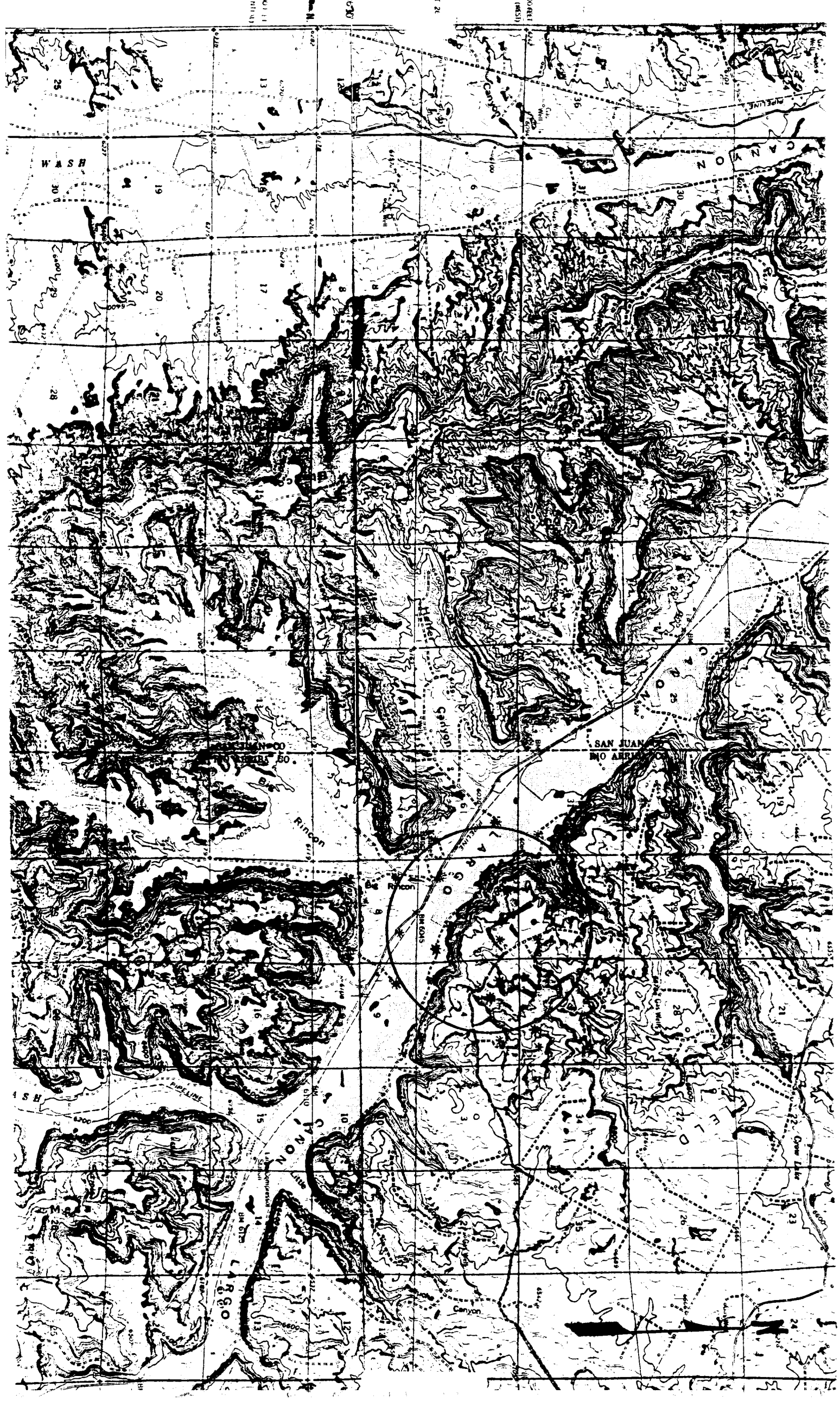
I hereby certify that I, or persons under my direct supervision have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by DEPCO, Inc. and its' contractors in conformity with this plan and the terms and conditions under which it is approved.

5-26-80

Date

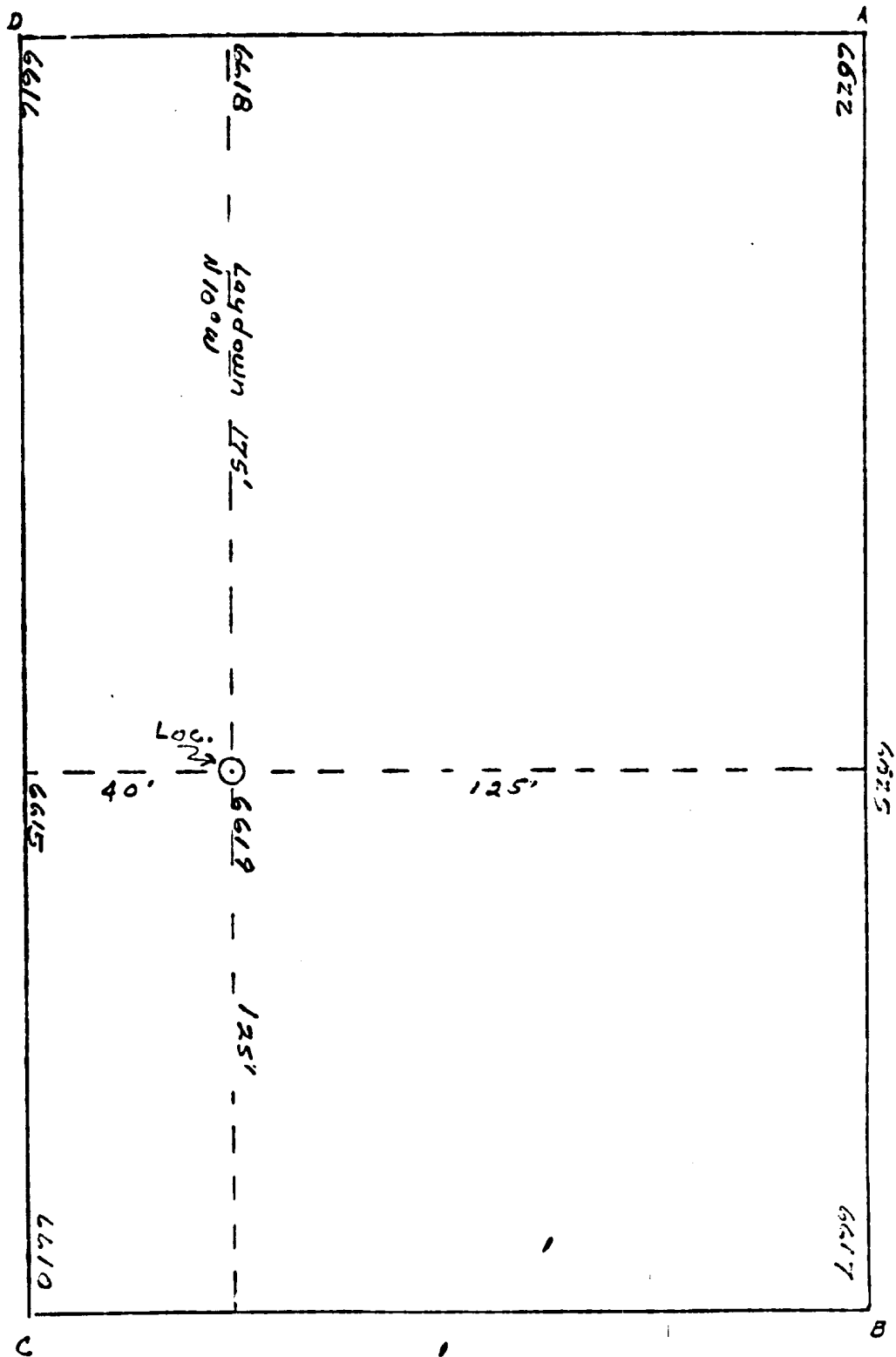

W. F. Schwenn







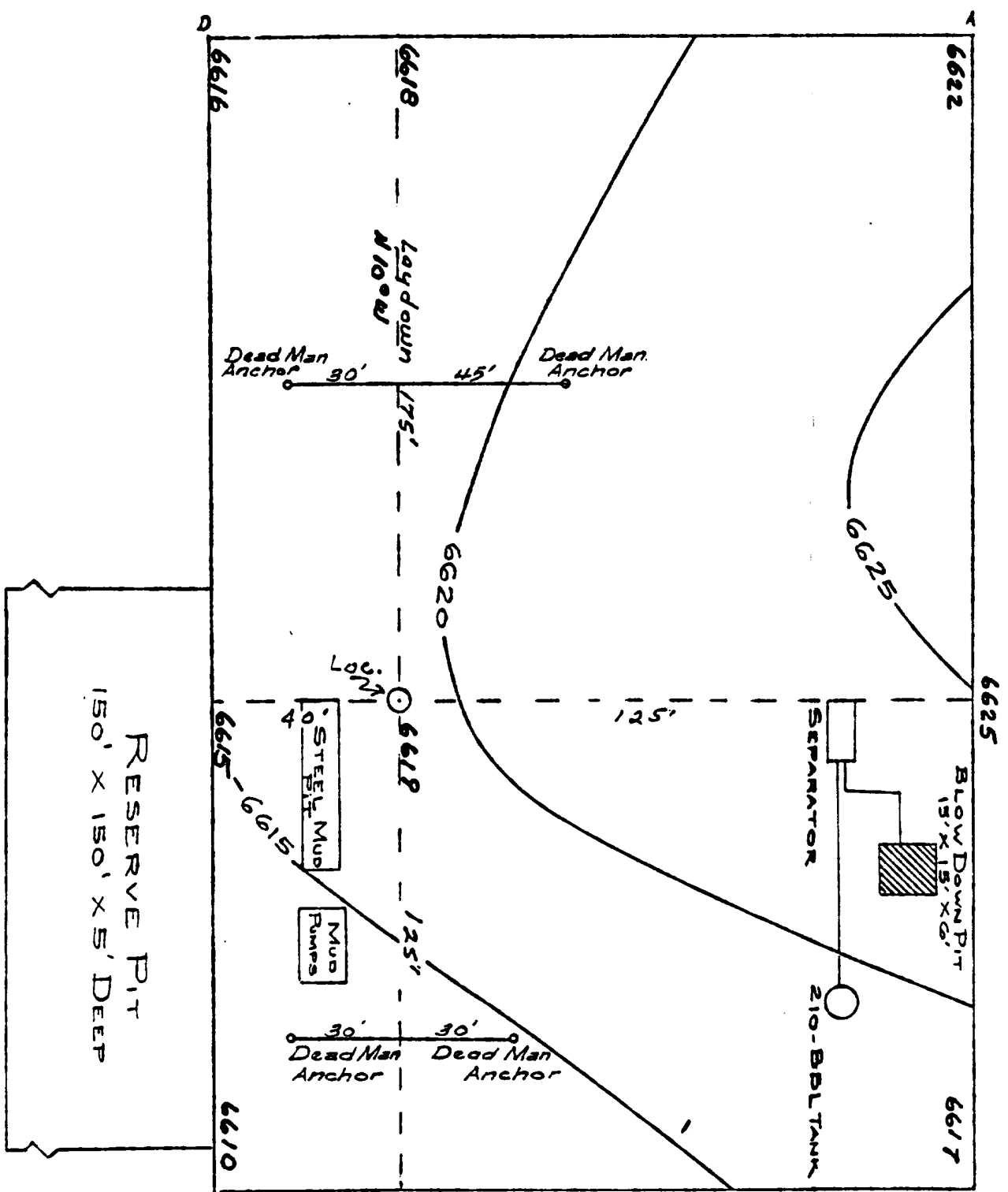
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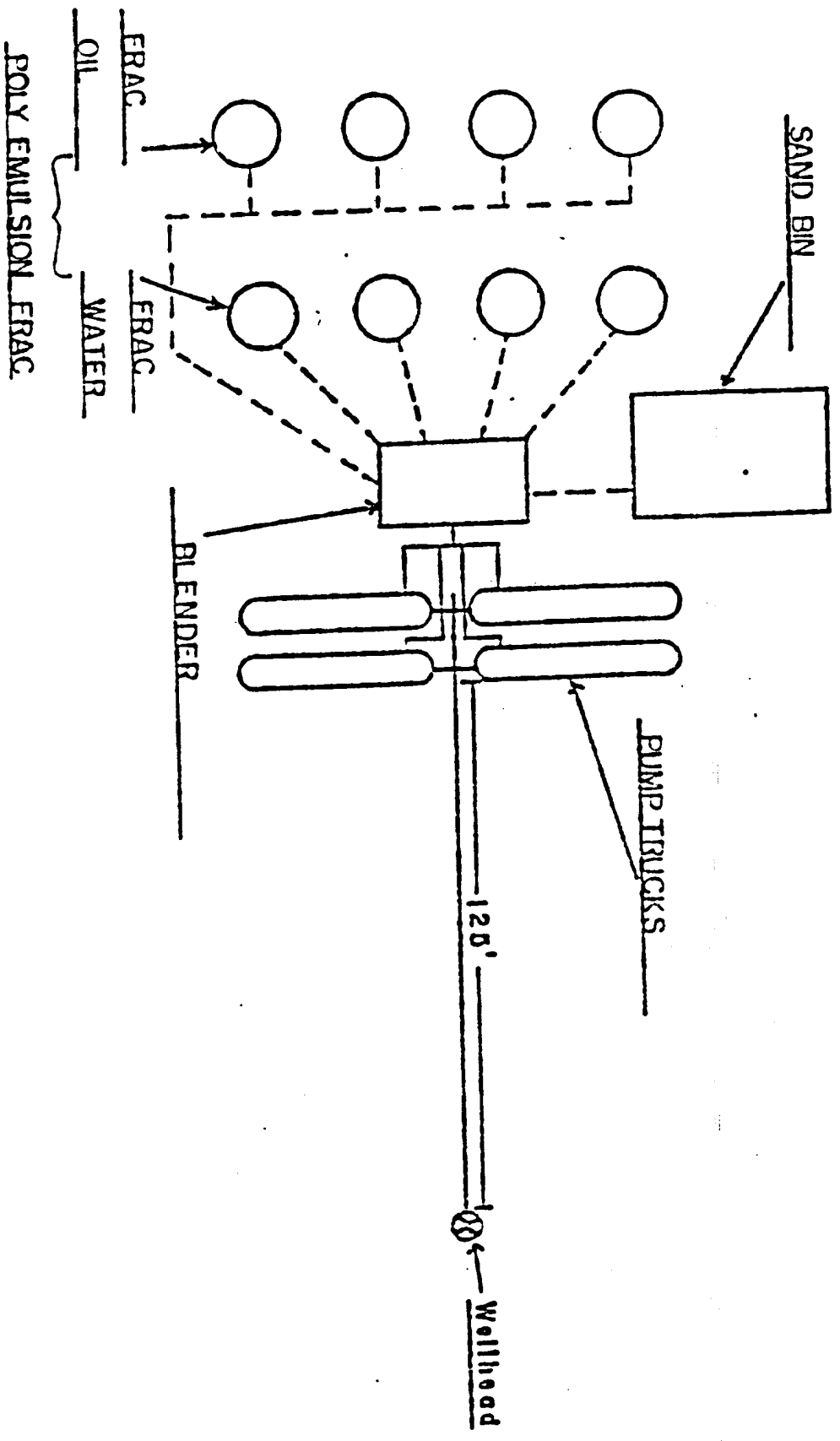


DEFCO INCORPORATED #2 BORING-FEDERAL
1120'FNL 1525'FEL Sec. 5-T26N-R7W
RIO ARRIBA NEW MEXICO



Scale: 1"=40'





FRACTURING
PROGRAM
LAYOUT

SCHEMATIC FOAM FRAC OPERATION

