

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY30-039-21813  
5. LEASE DESIGNATION AND SERIAL NO.

SF 078740

6. IF INDIAN, ALLOTTEE OR TRIBE, NAME

7. UNIT AGREEMENT NAME

San Juan 30-5 Unit

8. FARM OR LEASE NAME

San Juan 30-5 Unit

9. WELL NO.

48

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

SEC 20, T30N, R5W

12. COUNTY OR PARISH 13. STATE

Rio Arriba N.M.

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

Northwest Pipeline Corporation

3. ADDRESS OF OPERATOR

Northwest Pipeline Corporation

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

At surface

860' PNL &amp; 1770' FEL

At proposed prod. zone

As Above

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

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest dfg. unit line, if any)

860'

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

8000'

20. ROTARY OR CABLE TOOLS

Rotary

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

6422

22. APPROX. DATE WORK WILL START\*

June 10, 1978

23.

## PROPOSED CASING AND CEMENTING PROGRAM

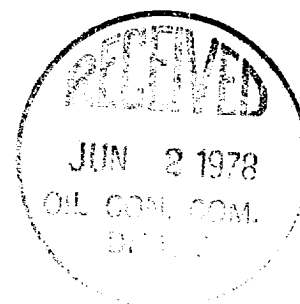
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	32.3#	300'	165 sks
8-3/4"	7"	20#	4000'	165 sks
6-1/4"	4-1/2"	10.5# & 11.6#	7860'	345 sks

Selectively perforate and stimulate the Dakota Formation.

A BOP will be installed after the surface casing is set and cemented.  
All subsequent work will be conducted through the BOP.

The East half of Section 20 is dedicated to this well.

Gas is dedicated.



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 prevention program, if any.

24.

SIGNED

D. U. Richardson

TITLE Drilling Engineer

DATE 5/31/78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

\*See Instructions On Reverse Side

MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form No. 1  
Supersedes O-6-1-77  
Effective 1-14-77

All distances must be from the center of the well to the boundary of the Section.

Operator <b>NORTHWEST PIPELINE CORPORATION</b>		Lease No. <b>San Juan 30-5 Unit</b>		Section <b>48</b>
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Block <b>B</b>	Quarter <b>20</b>	Township <b>30 NORTH</b>	Range <b>5 WEST</b>	County <b>RIO ARriba</b>
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Acres in this Lease (see Well)		Distance to the North		Distance to the East	
<b>860</b>		<b>1770</b>			

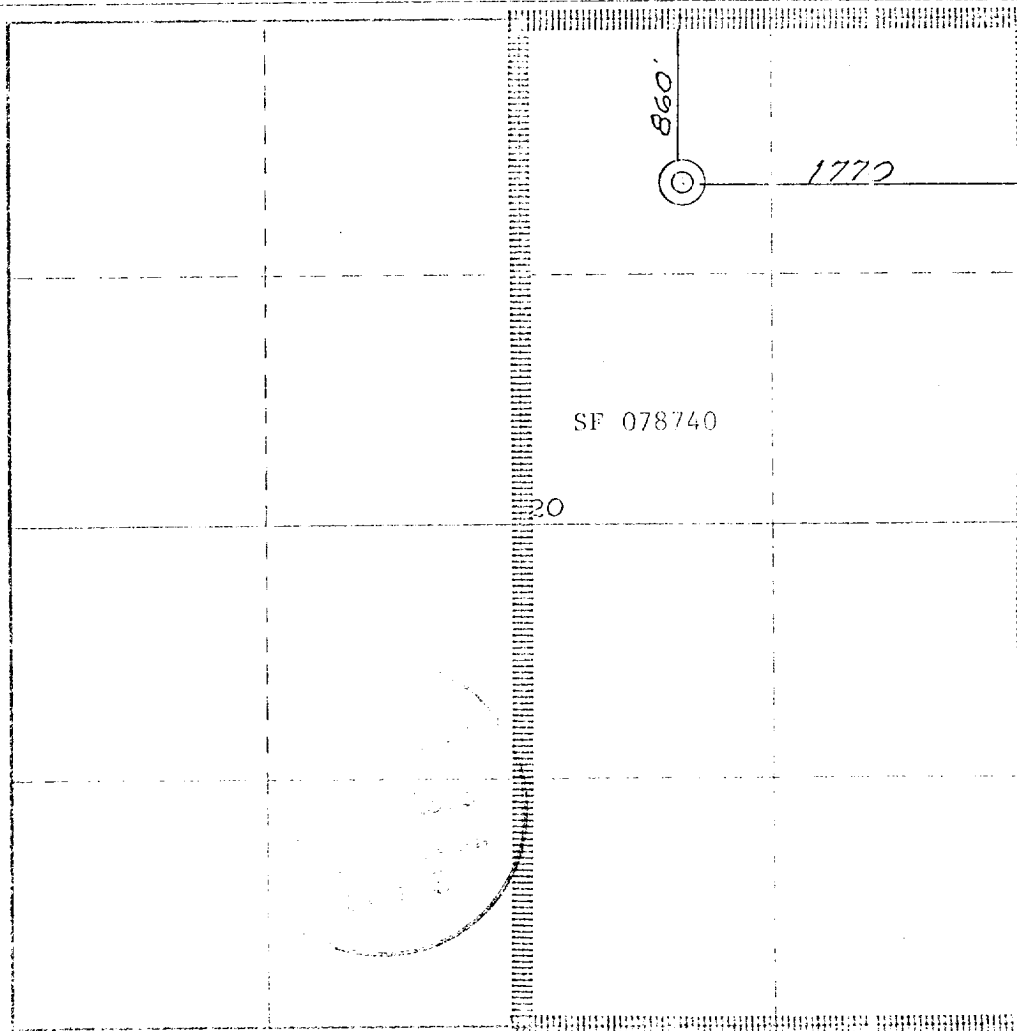
Ground Level Elev. <b>6422</b>	Drilling Formation <b>Dakota</b>	Basin <b>Basin Dakota</b>	Section of Acreage <b>320</b>
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- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 Unitization

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.

Name  
**D.E. Richardson**  
Position  
**Drilling Engineer**  
Company  
**Northwest Pipeline Corp.**  
Date  
**5/31/78**

I hereby certify that the well location shown on this plat was plotted from field notes of actual survey, made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date  
**28 February 1975**  
Signature  
**James P. Lease**  
Name  
**James P. Lease**  
Section of Acreage  
**1465**

NORTHWEST PIPELINE CORPORATION

MULTI - POINT SURFACE USE PLAN

For The San Juan 30-5 Unit

Well Number 48

1. Existing Roads: See attached topographic map. All existing roads used, shall be maintained in a serviceable condition at all times during the drilling operation.
2. Planned Access Roads: See attached topographic map. Maximum grade is approximately 1%. The road surface will not exceed twenty feet in width. Upon completion of drilling operations, the access road will be adequately drained to control run off and soil erosion. Drainage facilities may include ditches, water bars, culverts or any other deemed necessary. All activities will be confined to the access road and drill pad.
3. Location of Existing Wells: See attached topographic map.
4. Location of Tank Batteries; Production Facilities; and Production, Gathering and Service Lines: See attached topographic map for locations of existing and proposed gas gathering lines. The pipeline will be constructed adjacent to the access road.
5. Location and Type of Water Supply: Water needed for the drilling operation will be hauled from the San Juan 29-6 Unit Water Well in the SW/4 28, T29N, R6W.
6. Source of Construction Materials: No additional materials will be needed.
7. Methods for Handling Waste Disposal: All garbage, debris, and trash will be buried at least three feet deep. A portable toilet will be supplied for human waste. After drilling operations have been completed the reserve pit will be fenced and the liquid portion will be allowed to evaporate before the location is cleaned up and leveled. The earthen pits will not be located on natural drainages and will be constructed in such a manner so that they will not leak. Any evaporator pit containing toxic liquids will be fenced.
8. Ancillary Facilities: There will be no camps or airstrips associated with the drilling of this well.
9. Well Site Layout: See attached layout sheet.
10. Plans for Restoration of the Surface: Upon completion of drilling, the location will be cleaned, and leveled so that no cut or fill banks will be steeper than 3:1.

All of the area disturbed in connection with the drill site will be seeded as close as possible for any above ground equipment while still allowing for access to the equipment. Seeding will be done within one year after drilling is completed and during the period from July 1 through September 15. Seeding will be done with seed Mixture #1.

All equipment above ground will be painted a non-glare, non-reflective, non-chalking color that simulates the natural color the site. For this well code number 959-34127, Green.

11. Other Information: If, during operations, any historic or prehistoric ruin, monument or site, or any object of antiquity is discovered, then work will be suspended and the discovery will be reported to the District Manager of the BLM.

When drilling with gas, the line used to discharge and burn off the gas will be located so as not to damage vegetation in the area, and if necessary an earthen screen will be constructed to protect the vegetation. All liquids from the line will be contained at the site unless otherwise specified by the surface agency's representative.

The area covered by the location and proposed access road is gently sloped with scattered brush and some grasses.

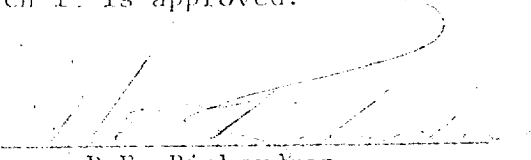
12. Operator's Representative: D.E. Richardson, P.O. Box 90 - Farmington, New Mexico 87401. Phone: 327-5351 Extension #62.

13. Certification:

I hereby certify that I 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 Northwest Pipeline Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

5/31/78

Date

  
D.E. Richardson  
Drilling Engineer

DER/aa

OPERATIONS PLAN

I. NAME: San Juan 30-5 Unit #48

May 31, 1978

LOCATION: SEC 20, T30N, R5W  
Rio Arriba County, New Mexico

LEASE NUMBER: SF 078740

FIELD: Basin Dakota

ELEVATION: 6422' GR

II. GEOLOGY:

A. Formation Tops:	Cliff House:	5380'
Ojo Alamo:	2593'	Point Lookout: 5580'
Kirtland:	2681'	Greenhorn: 7585'
Fruitland:	2991'	Graneros: 7635'
Pictured Cliffs:	3151'	Dakota: 7760'
Lewis:	3360'	Total Depth: 7860'

B. Logging Program: Gamma ray-Induction & Density at total depth.

C. Coring Program: None

D. Natural Gauges: Gauge at 5580', 5900', 7635', and @ total depth. Gauge any noticeable increases in gas flow at depth other than those noted above. Record all gauges on daily drilling report and tower report.

III. DRILLING:

A. Anticipated starting date and duration of activities: June 30, 1978 for 1 week.

B. BOP: Blind rams and pipe rams, 10', 900 series, double gate, rated at 3000 psi.

C. Mud Program:

- a) Spud Mud: Water, lime and gel.
- b) Surface to 3360'. Low solids system.
  - Viscosity: 32-38 sec/qt.
  - Weight: 8.8-9.2 #/gal.
  - Water Loss: 8-20 cc
  - Ph: 8.5-9.5
- c) From 3360' to 3560'
  - Viscosity: 36-45 sec/qt.
  - Weight: 8.5-9.5 #/gal.
  - Water Loss: 8-20 cc
  - Ph: 8.5-9.5
- d) From 3560' to total depth with gas.

IV. MATERIALS:

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	300'	9-5/8"	32.3# H-40 or 36#, K-55
8-3/4"	3560'	7"	20# K-55
6-1/4"	6000'	4-1/2"	10.5# K-55
6-1/4"	1860'	4-1/2"	11.6# K-55

B. Float Equipment:

Surface Casing: 9-5/8" Larkin Guide Shoe.

Intermediate Casing: 7" Dowell Guide Shoe. Dowell Self-fill insert float valve.  
Dowell Centralizers (5).

Production Casing: 4-1/2", Larkin geyser shoe, Larkin flapper type float collar.

C. Tubing: 7800 ' of 2-3/8" 4.7#, J-55, 8 rd EUE tubing with a common seating nipple above bottom joint.

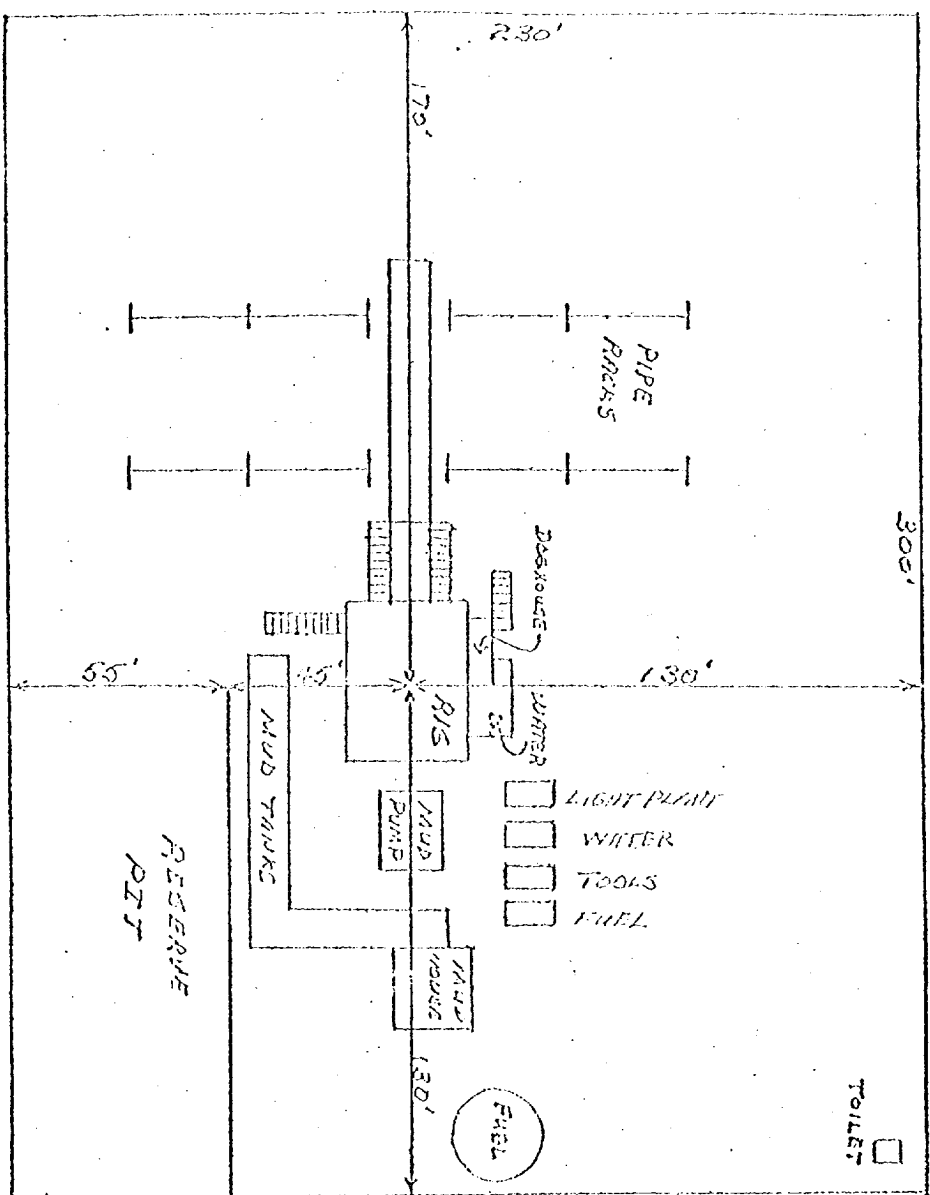
D. Well Head Equipment: Gray Tool Company drawing No. E-5533, or equivalent. Well head representative to set slips on intermediate and production strings.

V. CEMENTING:

A. Surface Casing: 9-5/8": Use 165 sacks of Class "B" cement with 1/4# gel flake per sack and 3% calcium chloride, (100% excess to circulate 9-5/8" casing). WOC 12 hours. Test to 600 psi for 30 minutes.

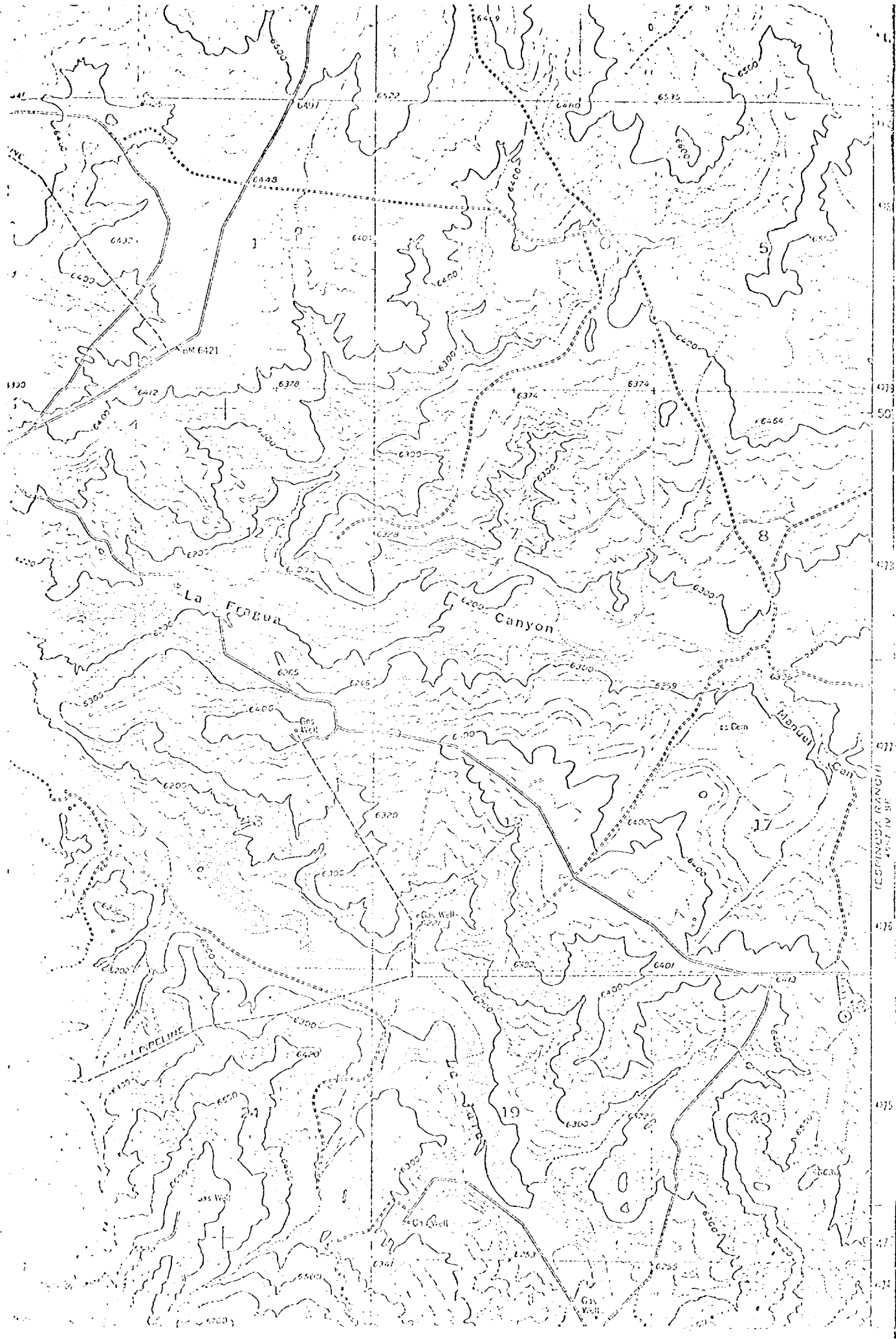
B. Intermediate Casing: 7": Use 115 sacks of 65/35 Class "B" poz with 12% gel & 15.52 gallons of water per sack. Tail in with 50 sacks of Class "B" with 2% calcium chloride (360 cu. ft. of slurry 50% excess to cover Ojo Alamo). Use top rubber plug only. Run temperature survey after 8 hours. WOC 12 hours. Test casing to 1200 psi for 30 minutes.

C. Production Casing: 4-1/2": Precede cement with 40 barrels of water mixed with 4 sacks gel. Cement with 245 sacks of Class "B" cement with 8% gel, 12-1/2# fine gilsonite per sack and 0.4% HR-4. Tail in with 100 sacks of Class "B" cement with 1/4% fine tuf-plug per sack & 0.4% HR-4 per sack. (635 cu. ft. of slurry). 50% excess to fill to intermediate casing. Run temperature survey after 8 hours. Perforate after 18 hours.



DATE: 05/30/78  
SCALE: 1cm = 20'





Proposed Road  
Proposed Pipeline