Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-039-21494

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: SF 078739

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

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

7. UNIT AGREEMENT NAME: San Juan 30-5

8. FARM OR LEASE NAME: San Juan 30-5

2. NAME OF OPERATOR: Northwest Pipeline Corporation

9. WELL NO.: 62

3. ADDRESS OF OPERATOR: P.O. Box 90 - Farmington, New Mexico 87401

10. FIELD AND POOL, OR WILDCAT: Blanco Mesa Verde

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1740' FNL & 1840' FEL

At proposed prod. zone: Same as above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 21, T30N, R5W

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

12. COUNTY OR PARISH: Rio Arriba — 13. STATE: N.M.

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	17. NO. OF ACRES ASSIGNED TO THIS WELL
1740	NA	320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
NA	5770	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6409' GR

22. APPROX. DATE WORK WILL START*: 11-16-77

23. PROPOSED CASING AND CEMENTING PROGRAM

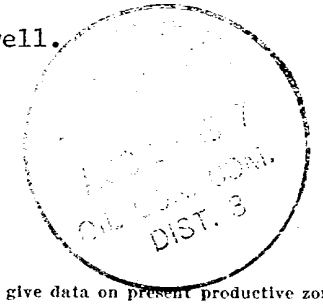
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	32.3#	200	125 sks.
8 3/4"	7"	20#	3610	150 sks.
6 1/4"	4 1/2"	10.5#	3460-5770	210 sks.

Selectively perforate and stimulate the Mesa Verde formation.

A BOP will be installed after the surface casing has been run and cemented. All subsequent operations will be conducted through the BOP.

The E/2 of Section 21 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 preventer program, if any.

24.

SIGNED J.P. Slattery TITLE Drilling Engineer DATE 8-10-77

J.P. Slattery

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

JPS/ch

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Okay

NV

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
Northwest Pipeline Corporation	San Juan 30-5 Unit	62

Unit Letter	Section	Township	Range	County
G	21	30N	5W	Rio Arriba

Actual Footage Location of Well:
1740 feet from the North line and 1840 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6409	Mesa Verde	Blanco	320 Acres

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

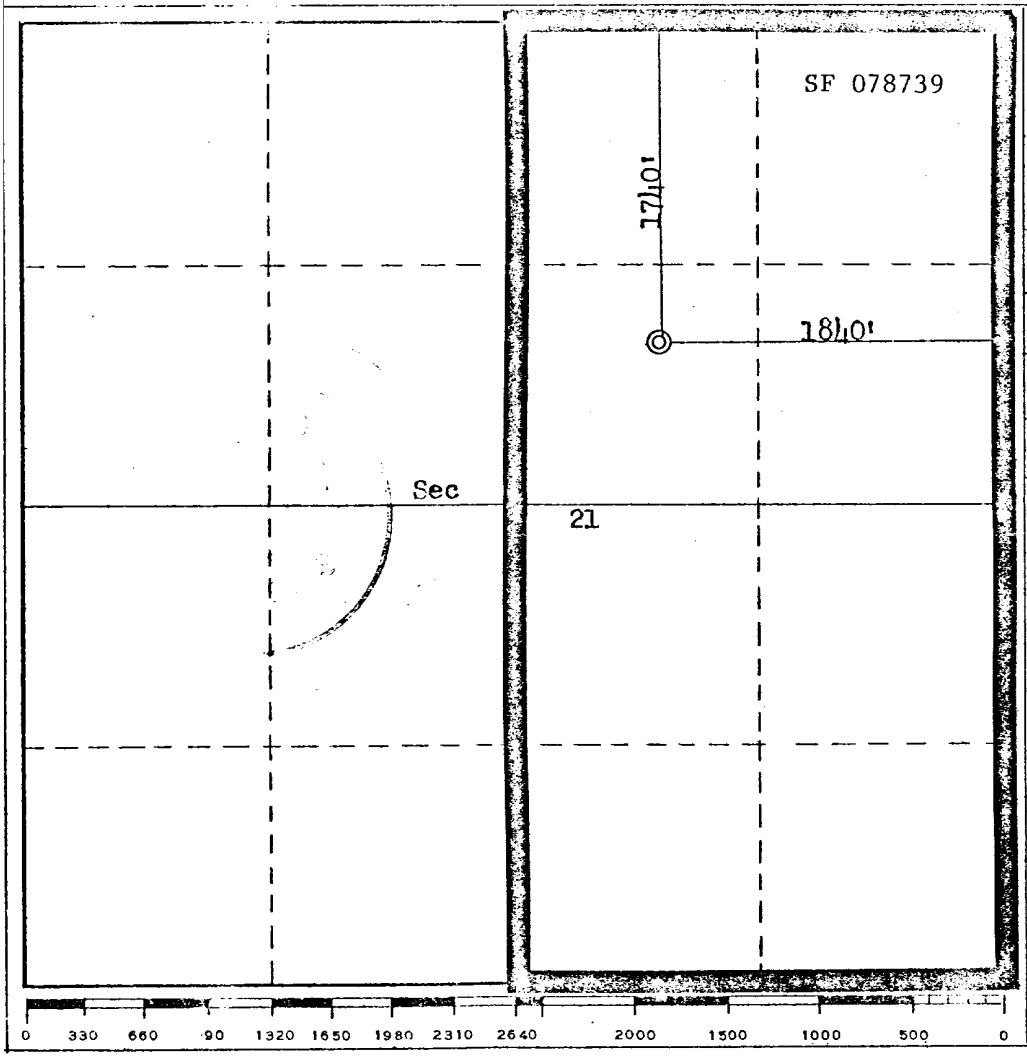
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

Name: T. P. Slotten

Position: Drilling Engineer

Company: Northwest Pipeline Corp.

Date: 8-10-77

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: June 21, 1977

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr, Jr.

Certificate No. 3950

OPERATIONS PLAN

San Juan 30-5 Unit #62

I. LOCATION: SW/4 NE/4 Sec. 21, T30N, R5W LEASE NUMBER: SF 078739

FIELD: Blanco Mesa Verde ELEVATION: 6409' GR

II. GEOLOGY:

A. Formation Tops:

Ojo Alamo:	2433'	Cliff House:	5250'
Kirtland:	2593'	Menefee:	5330'
Fruitland:	2960'	Point Lookout:	5570'
Pictured Cliffs:	3190'	Total Depth:	5770'
Lewis:	3460'		

B. Logging Program: Gamma Ray-Neutron at T.D.

C. Coring Program: None

D. Natural Gauges: Gauge at last connection above and at total depth. Gauge any noticeable increases in gas flow at depth other than those noted above.

III. DRILLING:

A. Anticipated starting date and duration of activities:

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 3460

Viscosity:	32-38 sec/qt.
Weight:	8.8-9.2 #/gal.
Water Loss:	8-20 cc
Ph:	8.5-9.5

c) From 3460 to 3660

Viscosity:	36-45 sec/qt.
Weight:	8.5-9.5 #/gal.
Water Loss:	8-20 cc
Ph:	8.5-9.5

d) From 3660 to total depth with gas.

IV. MATERIALS:

A. Casing Program:

Hole Size	Depth O.H.	Casing Size	Wt. & Grade	Depth Set
12 1/4"	200'	9 5/8"	32.3# H-40	200'
8 3/4"	3610'	7"	20# K-55	3610'
6 1/4"	5770'	4 1/2"	10.5# K-55	3460-5770

B. Float Equipment:

a) Surface casing 9 5/8" - B & W Reg. Patrern Shoe

b) Intermediate Casing 7" - Dowell guide shoe (Code #50101-070) and self fill insert float collar (Code #53003-070). Seven (7) centralizers (Code #56011-070) spaced every other joint above the shoe. Place float collar one joint above shoe.

B. Float Equipment cont.
c) Liner 4 1/2" - Larkin geyser shoe (Fig. 222) and Larkin flapper type float collar (Fig. 404). Brown liner hanger with neopreme pack off.

C. Tubing Program: 5700' of 2 3/8", 4.7#, EUE, K-55 tubing with seating nipple on top of bottom joint. Expendable check valve on bottom.

D. Well Head Equipment: Gray well head. Gray representative to set slips and make cut off.

V. CEMENTING:

A. Surface Casing 9 5/8" - Use 125 sks. Class "B" with 1/4# gel flake/sk. and 3% CaCl (100% excess to circulate). WOC 12 hours. Test surface csg. to 600 PSI for 30 min.

B. Intermediate Casing 7" - Use 100 sks. Class "B" 65/35 poz with 12% gel and 15.52 gal. water/sk. Tail in with 50 sks. Class "B" with 2% CaCl (65% excess to cover Ojo Alamo). WOC 12 hours. Run temp. survey after 8 hours. Test csg. to 600 PSI.

C. Production Liner 4 1/2" - Use 210 sks. Class "B" with 4% gel and 1/4 cu. ft. of fine Gilsonite/sk. Precede cmt. with 20 bbls. water mixed with 3 sks. gel (70% excess to circulate liner). Set liner pack off & reverse out excess cmt. Run 6 1/4" bit to top of liner and pressure test (test 12 hours after plug is down). Lay down DP & run 3 7/8" bit on 2 3/8" EUE tubing to clean out liner. Perforate 18 hrs. after plug is down.

JPS/ch

NORTHWEST PIPELINE CORPORATION

MULTI-POINT SURFACE USE PLAN

for the San Juan 30-5 Unit

Well Number 62

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 runoff and soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure 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.

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 located 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 burried 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 location layout sheet. There will be a drainage ditch above the cut slope.

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 of the site. For this well code number 595-34127, Gray.

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 earthern 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: J.P. Slattery, 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.

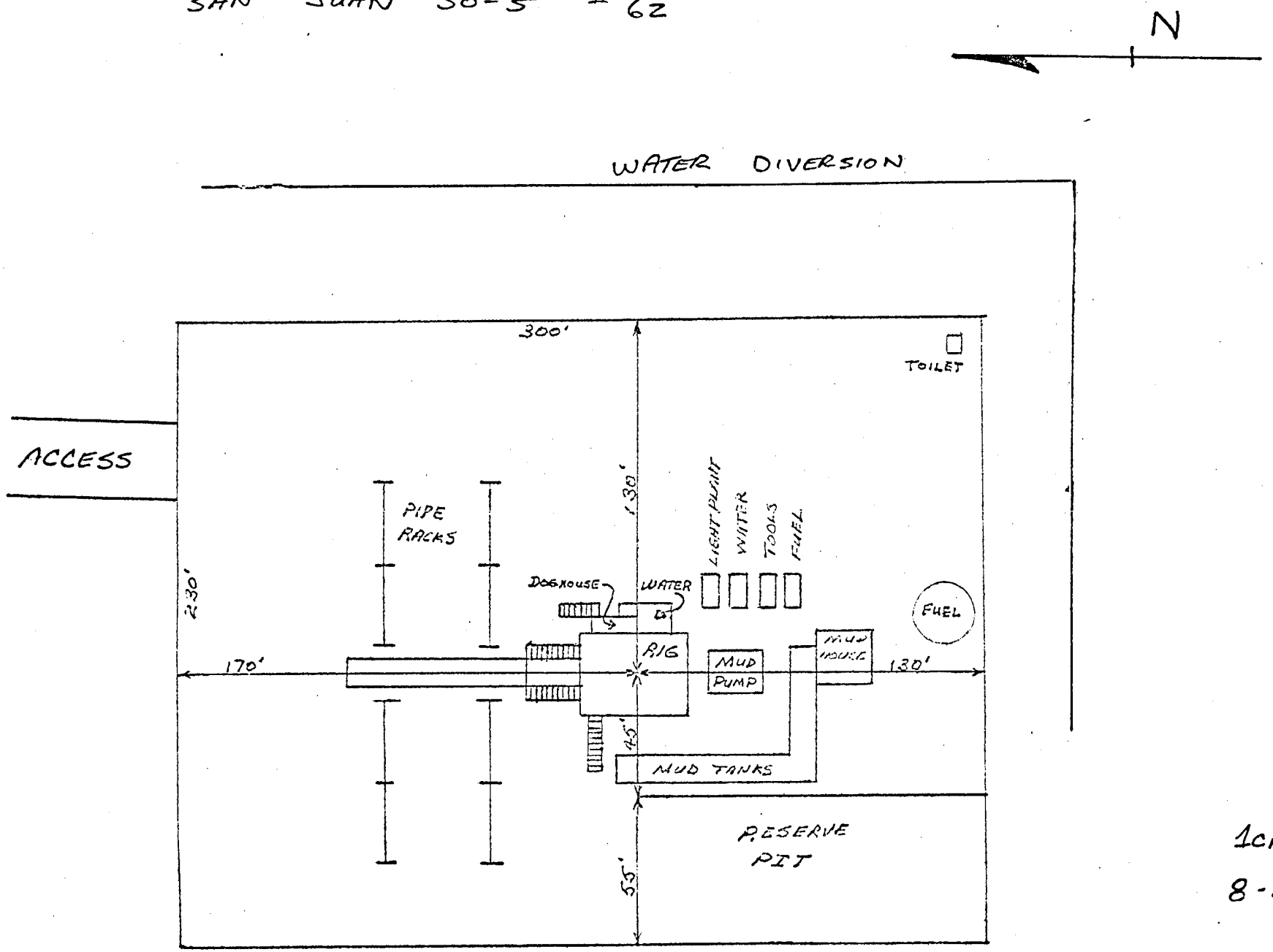
8-10-77
Date

J.P. Slattery
J.P. Slattery
Drilling Engineer

JPS/ch

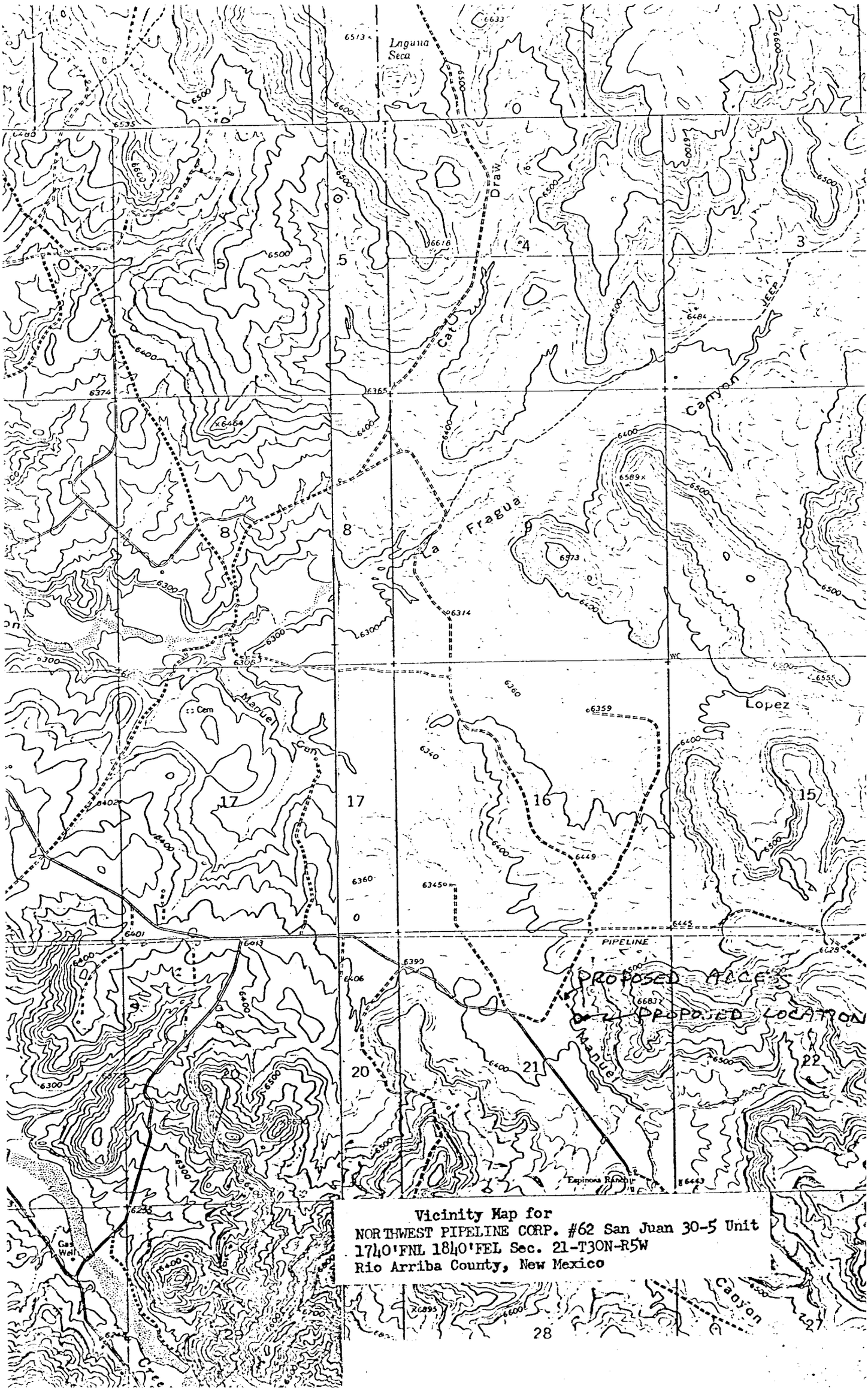
NORTH WEST PIPE LINE CORPORATION

SAN JUAN 30-5 #62



1 CM = 20'

8-10-77



Vicinity Map for
NORTHWEST PIPELINE CORP. #62 San Juan 30-5 Unit
1740'FNL 1840'FEL Sec. 21-T30N-R5W
Rio Arriba County, New Mexico