

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

30-039-21316  
5. LEASE DESIGNATION AND SERIAL NO.

NM 012670

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
San Juan 29-6 Unit

8. FARM OR LEASE NAME  
San Juan 29-6 Unit

9. WELL NO.  
48A

10. FIELD AND POOL, OR WILDCAT  
Blanco Mesa Verde

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 35, T29N, R6W

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

**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  
Northwest Pipeline Corporation

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
1720' FSL & 1170' 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 drlg. unit line, if any)  
400'

16. NO. OF ACRES IN LEASE

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.  
NA

19. PROPOSED DEPTH  
5745

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6483' GR

22. APPROX. DATE WORK WILL START\*  
Feb. 26, 1977.

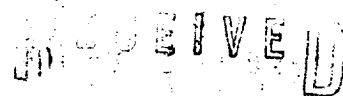
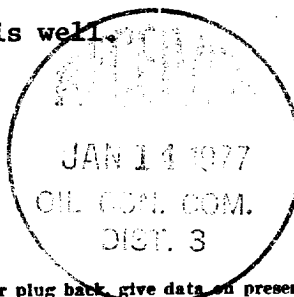
**23. PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36	200'	115 sks.
8 3/4"	7"	20	3749'	150 sks.
6 1/4"	4 1/2" Liner	11.6	3599' to T.D.	210 sks.

Selectively perforate and stimulate the Mesa Verde formation.

A BOP Will be installed after the 9 5/8" surface casing has been run and cemented. All subsequent work will be conducted through the BOP.

The E/2 of Section 35 is dedicated to this well.  
Gas is dedicated.



JAN 13 1977

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

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 D.H. Maroncelli TITLE Production Engineer DATE 1/4/77  
D.H. Maroncelli

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

DHM/ks

\*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.

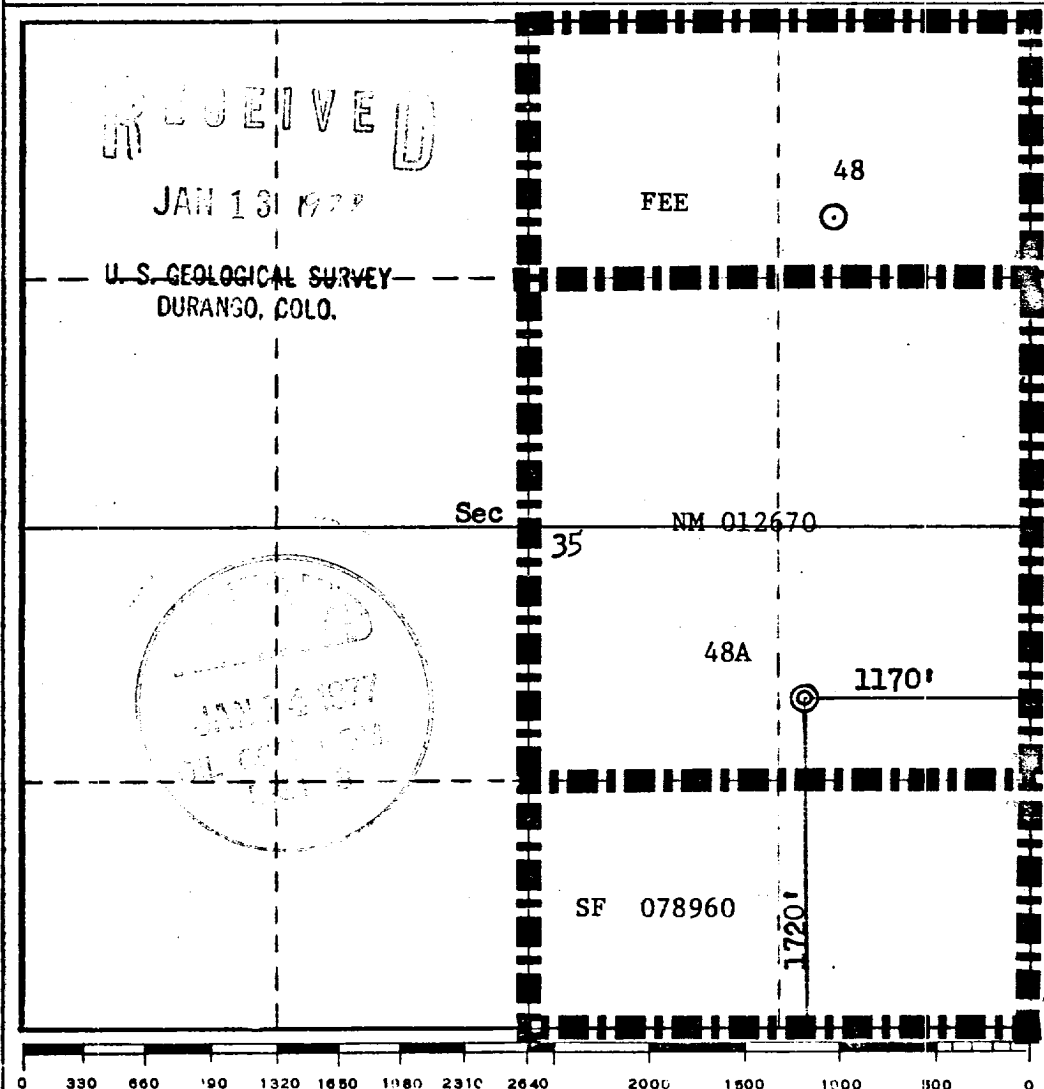
Operator <b>Northwest Pipeline Corporation</b>			Lease <b>San Juan 29-6 Unit</b>		Well No. <b>48A</b>
Unit Letter <b>I</b>	Section <b>35</b>	Township <b>29N</b>	Range <b>6W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1720</b> feet from the <b>South</b> line and <b>1170</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6483</b>	Producing Formation <b>Mesa Verde</b>		Pool <b>BLANCO</b>	Dedicated Acreage. <b>320</b> 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.



<b>CERTIFICATION</b>	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
<i>D. H. Maroncelli</i>	
Name	<b>D. H. MARONCELLI</b>
Position	<b>PRODUCTION ENGINEER</b>
Company	<b>NORTHWEST PIPELINE CORP.</b>
Date	<b>DECEMBER 22, 1976</b>
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	<b>December 14, 1976</b>
Registered Professional Engineer and/or Land Surveyor	
<i>Fred B. Kerr Jr.</i>	
Certificate No.	
<b>3950</b>	

RECEIVED

JAN 13 1977

U. S. GEOLOGICAL SURVEY  
DURANGO, COLO.

NORTHWEST PIPELINE CORPORATION

MULTI-POINT SURFACE USE PLAN

For the San Juan 29-6 Unit

Well Number 48A

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 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. The pipeline will be constructed adjacent to the area cleared for 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 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 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 location layout sheet. There will be a drainage ditch above the cut slope, draining to the west.
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. For this well seed Mixture #1 will be used.

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 595,36357, grey.

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 agencies 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.H. Maroncelli, P.O. Box 90, Farmington, N.M. 87401, Phone: 327-5351 Extention 54.
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 sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Jan. 11, 1977  
Date

D.H. Maroncelli  
D.H. Maroncelli  
Production Engineer

DHM/ks

OPERATIONS PLAN

San Juan 29-6 Unit #48A

Rio Arriba County, N.M.

I. LOCATION: Se/4 Sec. 35, T29N, R6W

LEASE NUMBER: NM 012670

FIELD: Blanco Mesaverde

ELEVATION: 6483' GR

II. GEOLOGY:

A. Formation Tops:

San Jose:	Surface	Cliff House:	5130'
Ojo Alamo:	2517'	Menefee:	5215'
Kirtland:	2648'	Point Lookout:	5545'
Fruitland:	3099'	Total Depth:	5745'
Pictured Cliffs:	3394'		
Lewis:	3549'		

B. Logging Program: Gamma Ray-Induction and Density at T.D.

C. Coring Program: None

D. Testing Program: None

III. DRILLING:

A. Anticipated starting date and duration of activities: February 26, 1977  
14 days.

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 3549'

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

(c) From 3549' to 3749'

Viscosity 36-45 sec/qt.  
Weight: 8.5-9.5 #/gal.  
Water Loss: 6-12 cc.  
pH: 8.5-9.5

(d) From 3749' to total depth with gas.

IV. MATERIALS:

A. Casing Program:

<u>Hole Size</u>	<u>Depth O.H.</u>	<u>Casing Size</u>	<u>Wt. &amp; Grade</u>	<u>Depth Set</u>
12 1/4"	200'	9 5/8"	36# H-40	200'
8 3/4"	3749'	7"	20# K-55	3749'
6 1/4"	3749' - T.D.	4 1/2"	11.6# K-55	3599'-T.D.

OPERATIONS PLAN

Page 2

B. Tubing Program:

5700' of 2 3/8", 4.7#, J-55 tubing with seating nipple on top of bottom joint. Expendable check valve on bottom.

V. CEMENTING:

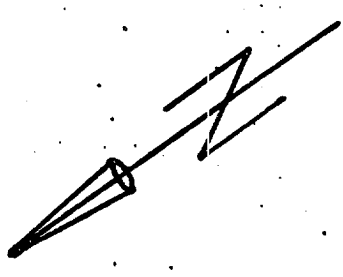
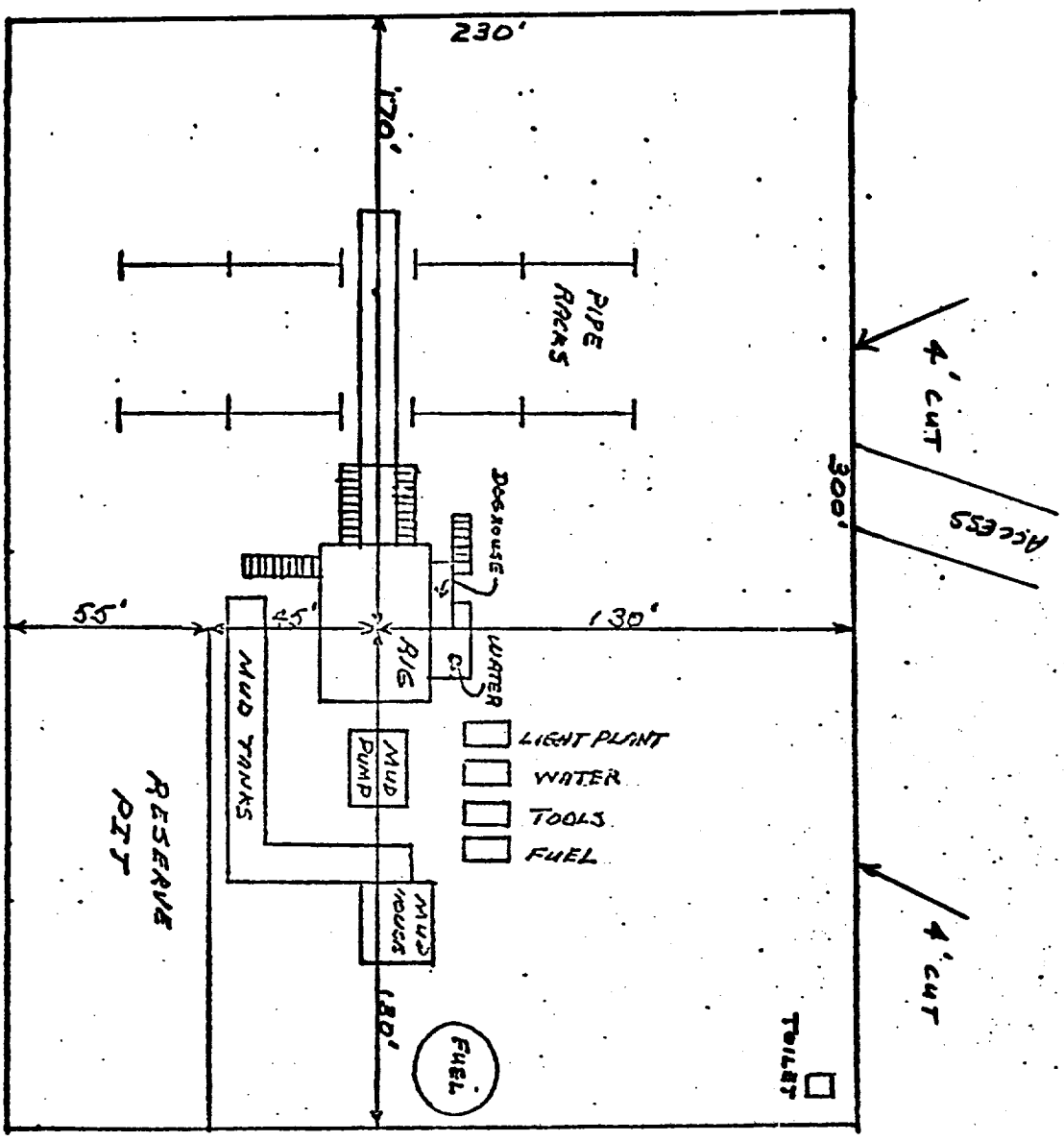
- A. Surface Casing 9 5/8" - Use 115 sacks of Class "B" with 1/4# gel flake per sack and 3% calcium chloride (100% excess to circulate). WOC 12 hours. Test surface casing to 600 PSI for 30 minutes.
- B. Intermediate Casing - Use 100 sacks of Class "B" 65/35 poz with 12% gel and 15.52 gal. water per sack. Tail in w/50 sacks Class "B" with 2% calcium chloride (excess to cover Ojo Alamo). WOC 12 hours. Run temperature survey after 8 hours. Test casing to 600 PSI.
- C. Production Liner-4 1/2"- Use 210 sacks of Class "B" with 4% gel & 1/4 cu. ft. of fine Gilsontie per sack. Precede cement with 20 bbls. water mixed w/3 sxs. gel (70% excess to circulate liner). Set liner pack off & reverse out excess cement. Run 6 1/4" bit to top of liner & pressure test (test 12 hrs. 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.

DHM/vn

NORTHWEST PIPELINE CORPORATION

LOCATION LAYOUT

SAN JUAN 29-6 UNIT # 48A



DATE: 1-11-77  
SCALE: 1/4" = 20'





Vicinity Map for  
NORTHWEST PIPELINE CORP.  
#48A San Juan 29-6 Unit  
1720' FSL 1170' FEL Sec 35-29N-6W  
Rio Arriba County, New Mexico