

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

AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR

501 Airport Drive, Farmington, New Mexico 87401

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

At surface

1520' FSL, 870' FEL, Section 15, T-25-N, R-5-W

At proposed prod. zone

Same

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

20 miles northwest of Counselors, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any) 870

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

5600'

16. NO. OF ACRES IN LEASE

2560.00

19. PROPOSED DEPTH

8000'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

5/320

20. ROTARY OR CABLE TOOLS

Rotary

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

6888' GL

22. APPROX. DATE WORK WILL START*

March 18, 1979

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'	200 sx
7-7/8"	4-1/2"	10.5#	8000'	2300 sx

The above well is being drilled to further develop the Basin Dakota Field. The well will be drilled with a low solids non-dispersed mud system. Completion design will be based on open hole logs. Copy of all logs will be filed upon completion.

The gas from this well is dedicated to Northwest Pipeline Corporation.

Additional information required by NTL-6 for the application to drill and a Multi-Point Surface Use Plan are attached.

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

TITLE District Engineer

DATE January 15, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

DATE RECEIVED

JAN 18 1979

*See Instructions On Reverse Side

U. S. GEOLOGICAL SURV

**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.

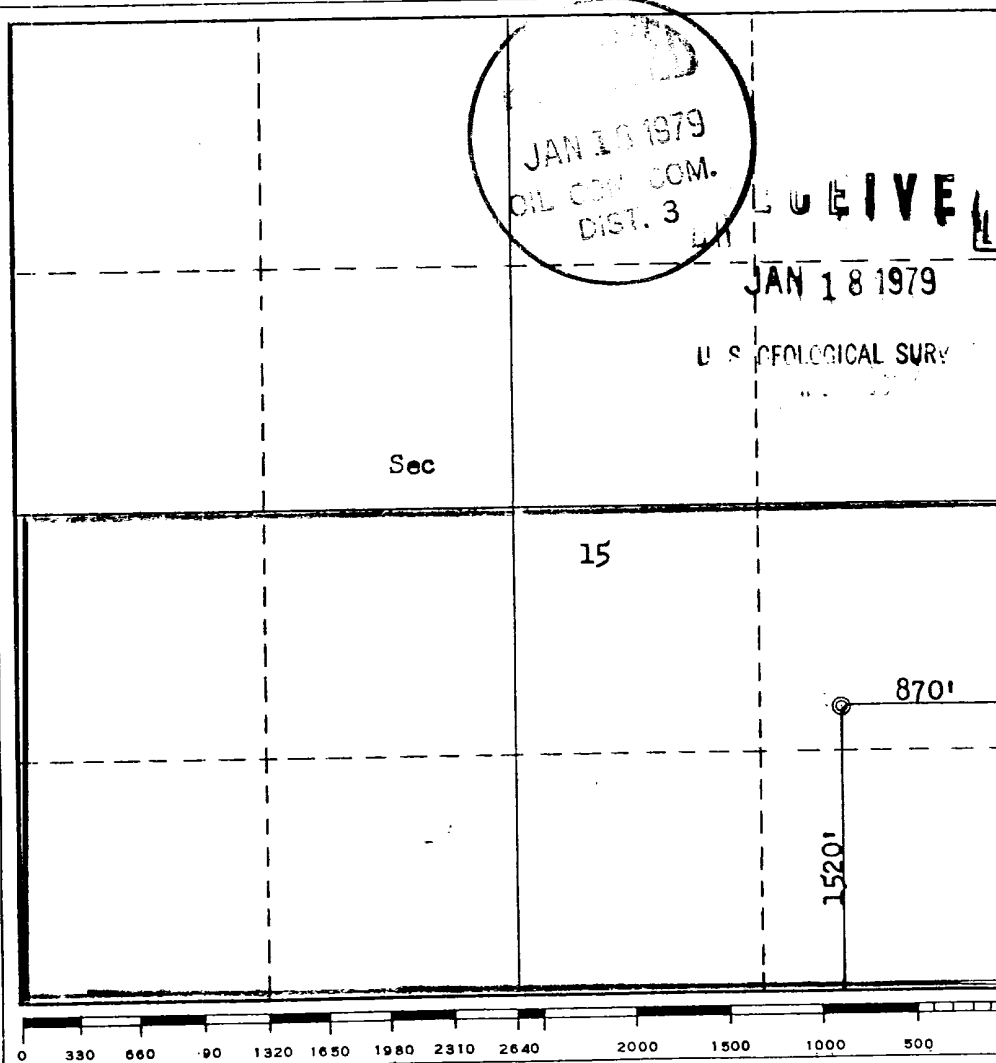
Operator AMOCO PRODUCTION COMPANY			Lease JICARILLA CONTRACT 1148		Well No. 17
Unit Letter I	Section 15	Township 25N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 1520 feet from the South line and 870 feet from the East line					
Ground Level Elev. 6888	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 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
J. L. KRUPKA
Position
DISTRICT ENGINEER
Company
AMOCO PRODUCTION COMPANY
Date
DECEMBER 12, 1978

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
November 30, 1978
Registered Professional Engineer and/or Land Surveyor
Frederic B. Kerr Jr.
Certificate No.
3950

SUPPLEMENTAL INFORMATION TO FORM 9-331C
REQUIRED BY NTL-6
JICARILLA CONTRACT 148 NO. 17
1520' FSL, 870' FEL, Section 15, T-25-N, R-5-W
Rio Arriba County, New Mexico

The geologic name of the surface formation is the Tertiary San Jose.

The estimated tops of important geological formations bearing hydrocarbons are:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Pictured Cliffs	3101'	+ 3800'
Mesaverde	4751'	+ 2150'
Gallup	6351'	+ 550'
Dakota	7301'	- 400'
TD 8000'		

Estimated KB elevation is 6901'

The casing program to be used will include all new casing:

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT - TYPE</u>
300'	8-5/8"	24#	12-1/4"	200 Class "B" 2% CaCl ₂ .
8000'	4-1/2"	10.5#	7-7/8"	2200 Class "B" 6% Gel, 2# Med. Tuf Plug/sx. 100 Class "B" Neat.

DV tool below MV.

Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design.

Amoco will run an Induction Electric Survey from TD to 4500' and a Density - Gamma Ray Log from TD to 4500'. No cores or drill stem tests will be taken.

In the past, drilling in this area has shown that no abnormal pressures, temperatures, nor hydrogen sulfide gas will be encountered.

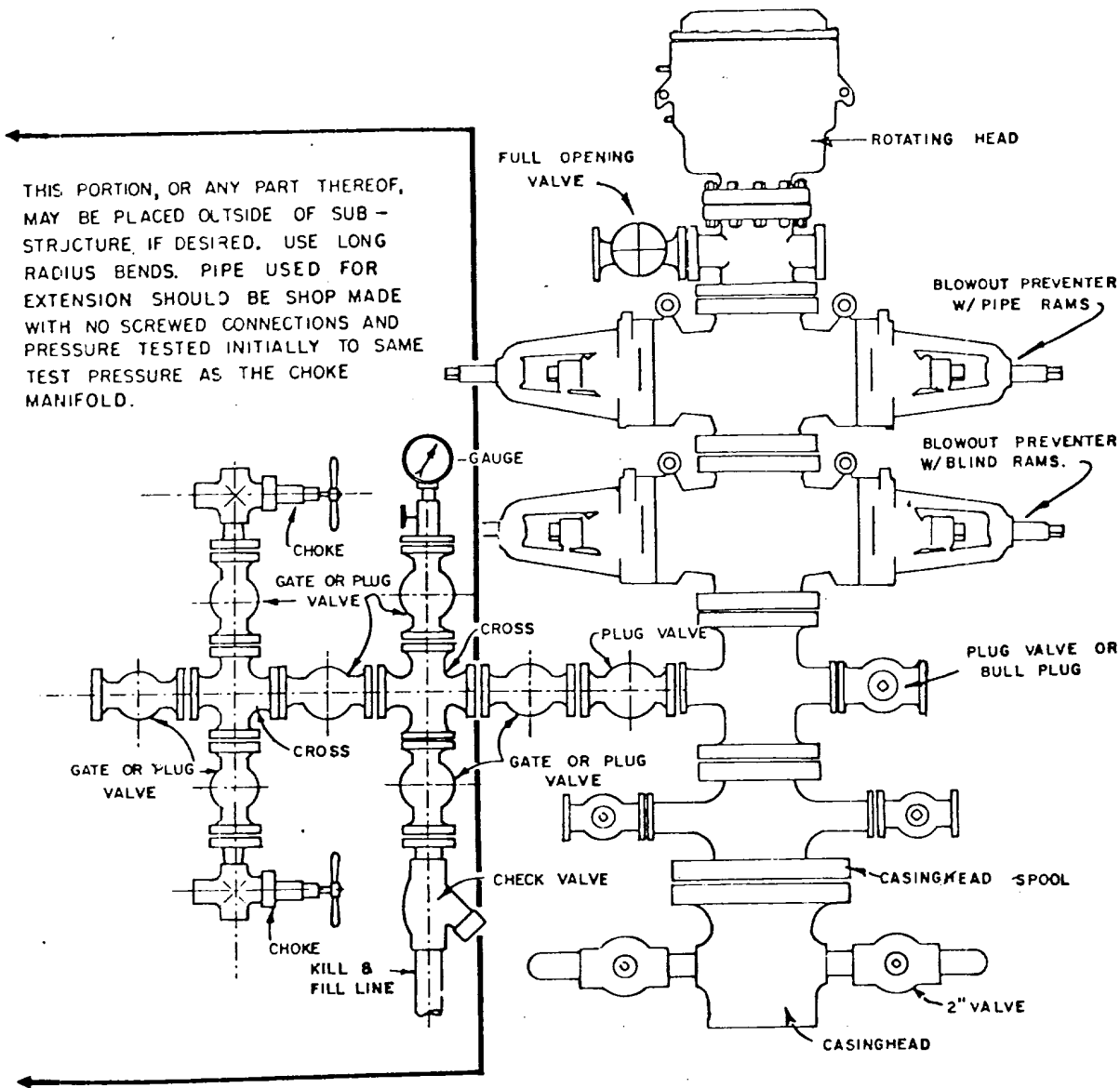
We will start operations as soon as well is permitted, and a three-week operation is anticipated.

COPIES
FIVE

JAN 18 1979

U. S. GEOLOGICAL SURV

THIS PORTION, OR ANY PART THEREOF, MAY BE PLACED OUTSIDE OF SUB-STRUCTURE, IF DESIRED. USE LONG RADIUS BENDS. PIPE USED FOR EXTENSION SHOULD BE SHOP MADE WITH NO SCREWED CONNECTIONS AND PRESSURE TESTED INITIALLY TO SAME TEST PRESSURE AS THE CHOKE MANIFOLD.



BLOWOUT PREVENTER HOOKUP

EXHIBIT D-4
OCTOBER 16, 1969

RECEIVED
JAN 18 1979
U. S. GEOLOGICAL SURVEY

MULTI-POINT SURFACE USE PLAN

JICARILLA CONTRACT 148 NO. 17
1520' FSL & 870' FEL, SECTION 15, T25N, R5W
RIO ARriba COUNTY, NEW MEXICO

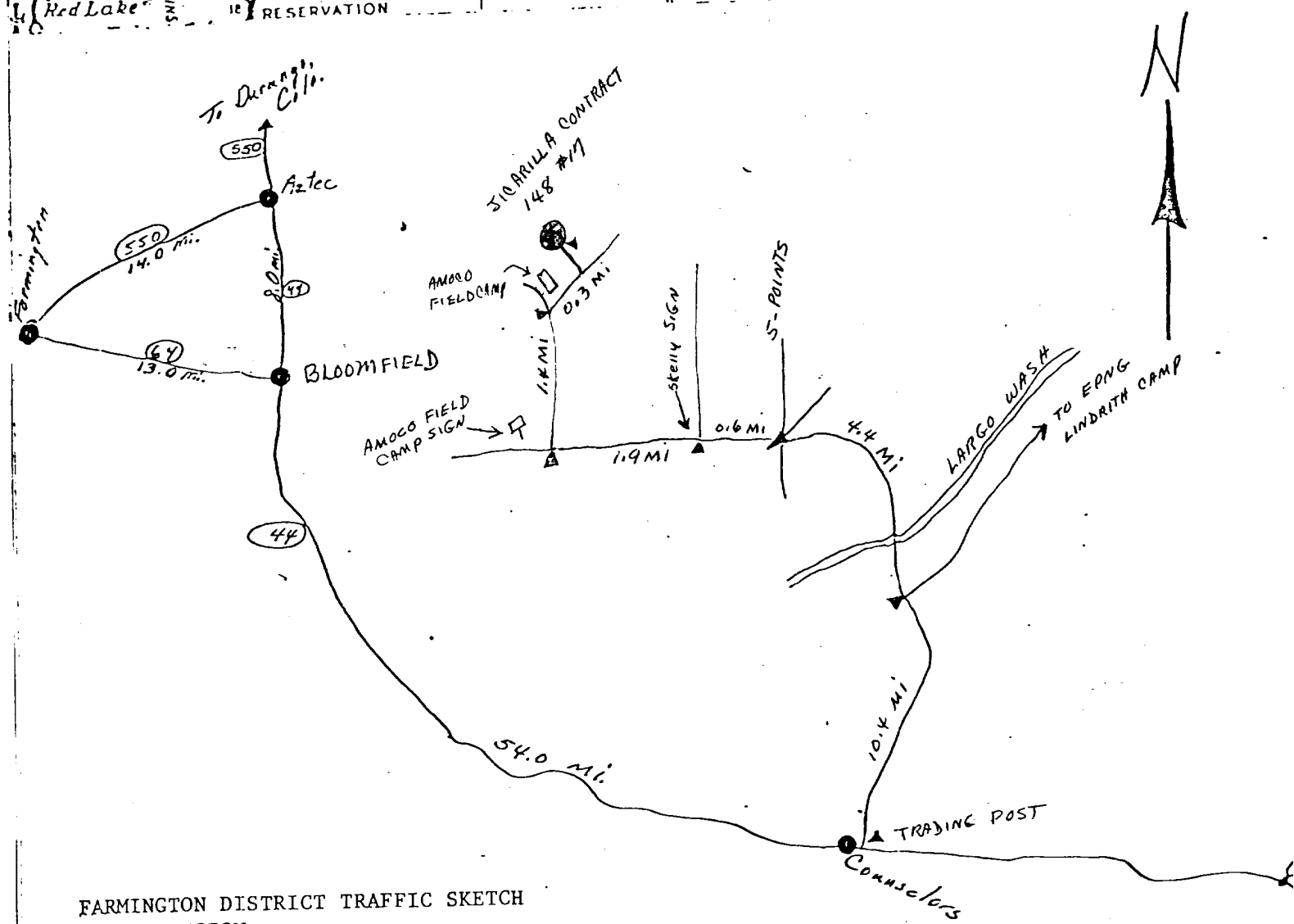
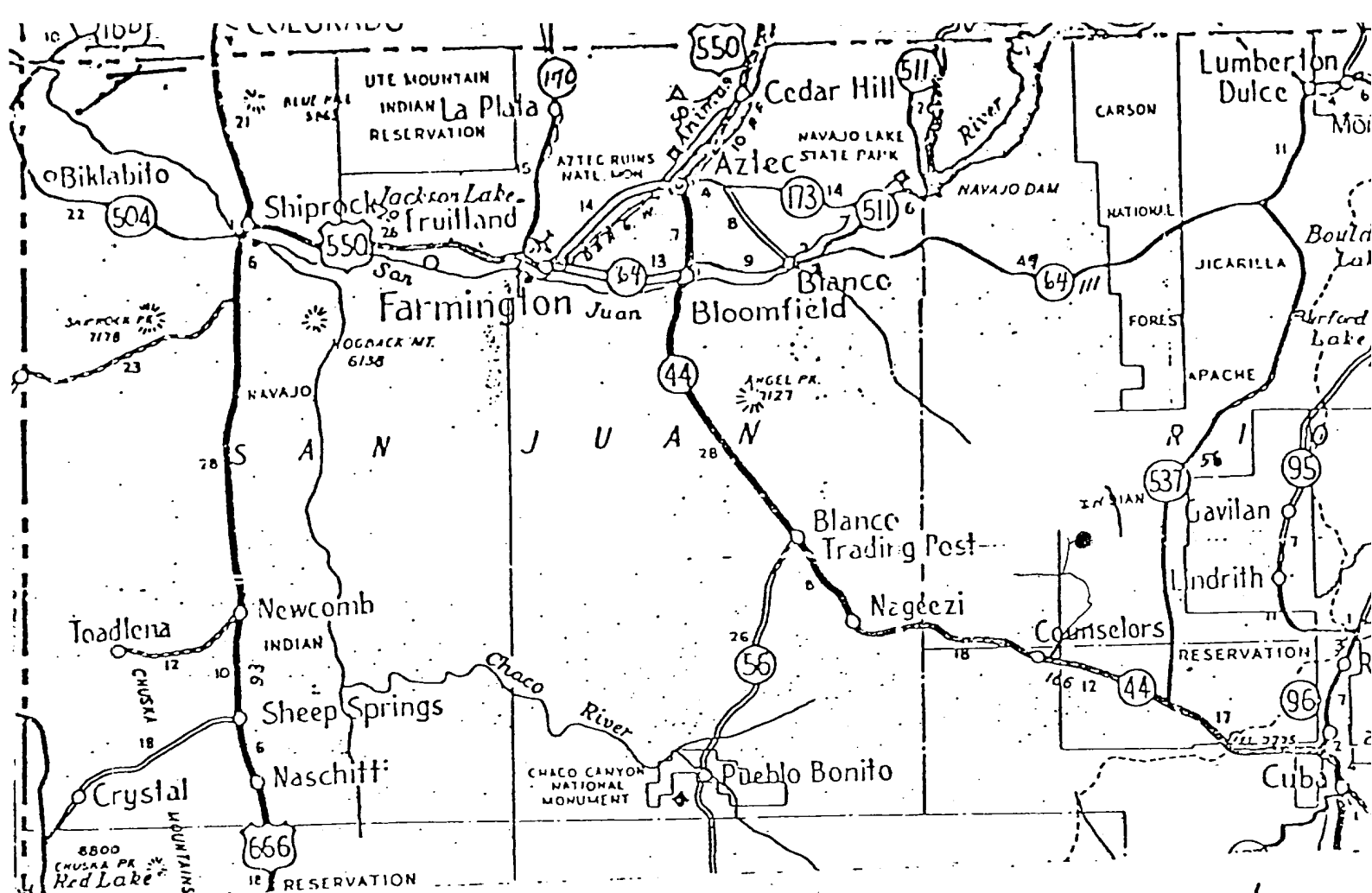
1. The attached road map and sketch show the proposed route to the location and distances from towns.
2. No new access road will be required. Existing road to Jicarilla Contract 148 Well No. 7 will be used.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
4. There are 380-barrel storage tanks located at Jicarilla 148 No. 10 and Jicarilla 148 No. 13.
5. Water will be hauled by truck over existing roads from pits dug alongside Tapacito Wash.
6. No construction materials will be hauled in for this location.
7. A 100' X 100' pit will be built on location to hold all drilling waste. Upon completion of well, all waste and liquid will be pumped out and fluids will be bladed into roads.
8. There are no airstrips in the vicinity but Amoco Production Company's Field Camp is located three-tenths of a mile west of proposed location.
9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. Well site is located in a flat area; therefore, no cuts will be necessary.
10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Drainage ditches will be built to handle run-off. Reseeding of the site will be carried out as detailed in the attached Seeding Plan.
11. The general topography is a gently rolling valley slope with sandy clay and loam soil. Vegetation consists of sagebrush and native grasses with a few pinon trees.

Representatives of the U. S. Geological Survey's Durango Office and Jicarilla Tribe's Dulce Office (John Keller and Gary Vicenti, respectively) inspected the site with Amoco personnel. Cultural resources inspection was conducted by Dabney Ford, Archaeologist from San Juan College

12. A Certification Statement by Amoco's representative is included.

RECEIVED
JAN 18 1979

U S GEOLOGICAL SURV

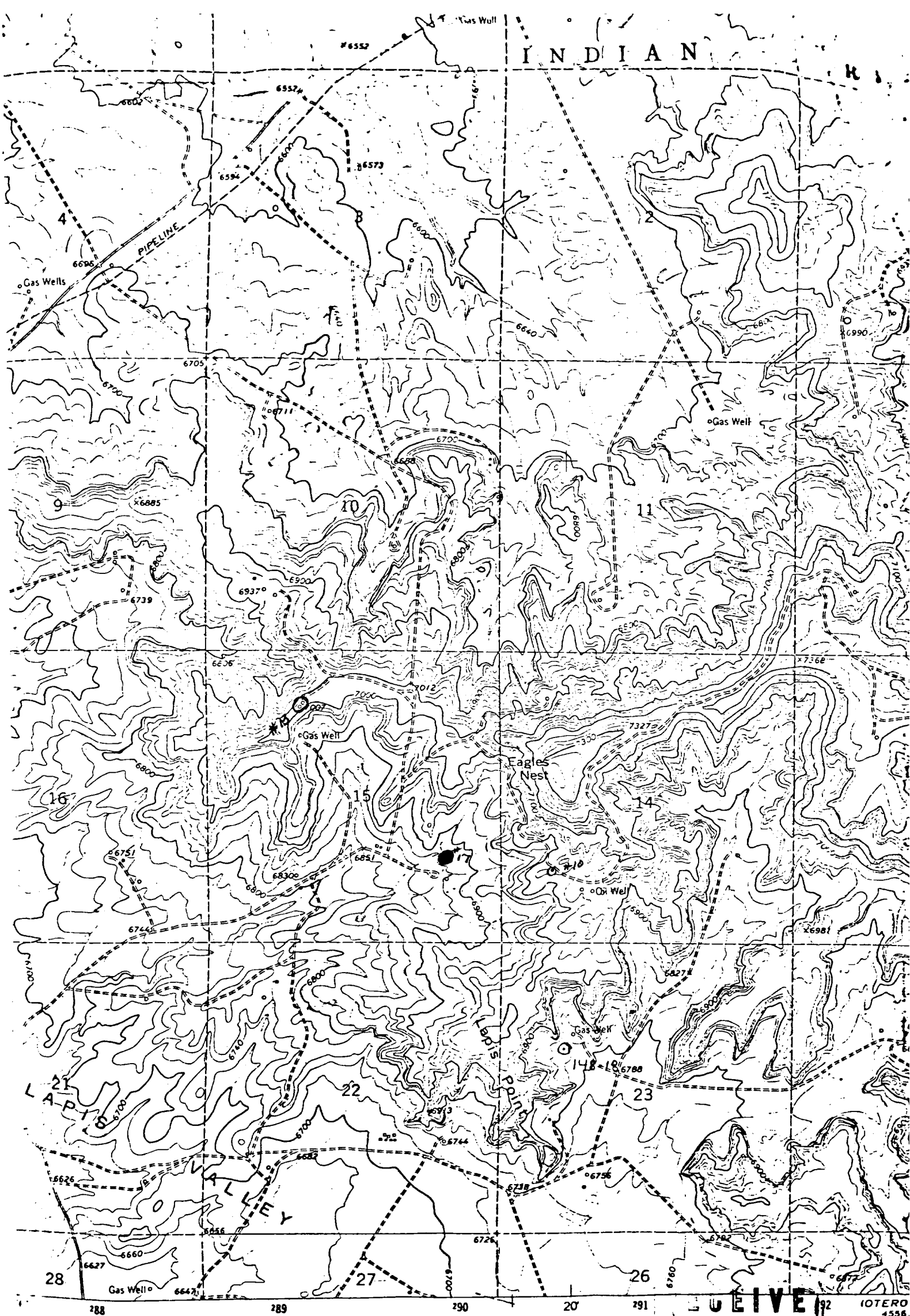


FARMINGTON DISTRICT TRAFFIC SKETCH
DENVER REGION
JICARILLA CONTRACT 148 WELL NO. 17
RIO ARriba COUNTY, NEW MEXICO
AMOCO WI: 100%

Rail Point, Aztec - 81 miles
Mud Point, Aztec - 81 miles
Cement Point, Farmington - 86 miles

DO NOT WRITE
JAN 18 1979

U. S. GEOLOGICAL SURV



Published by the Geological Survey

Methods from aerial
and 1963
Indian datum
coordinate system, central zone
and ticks.

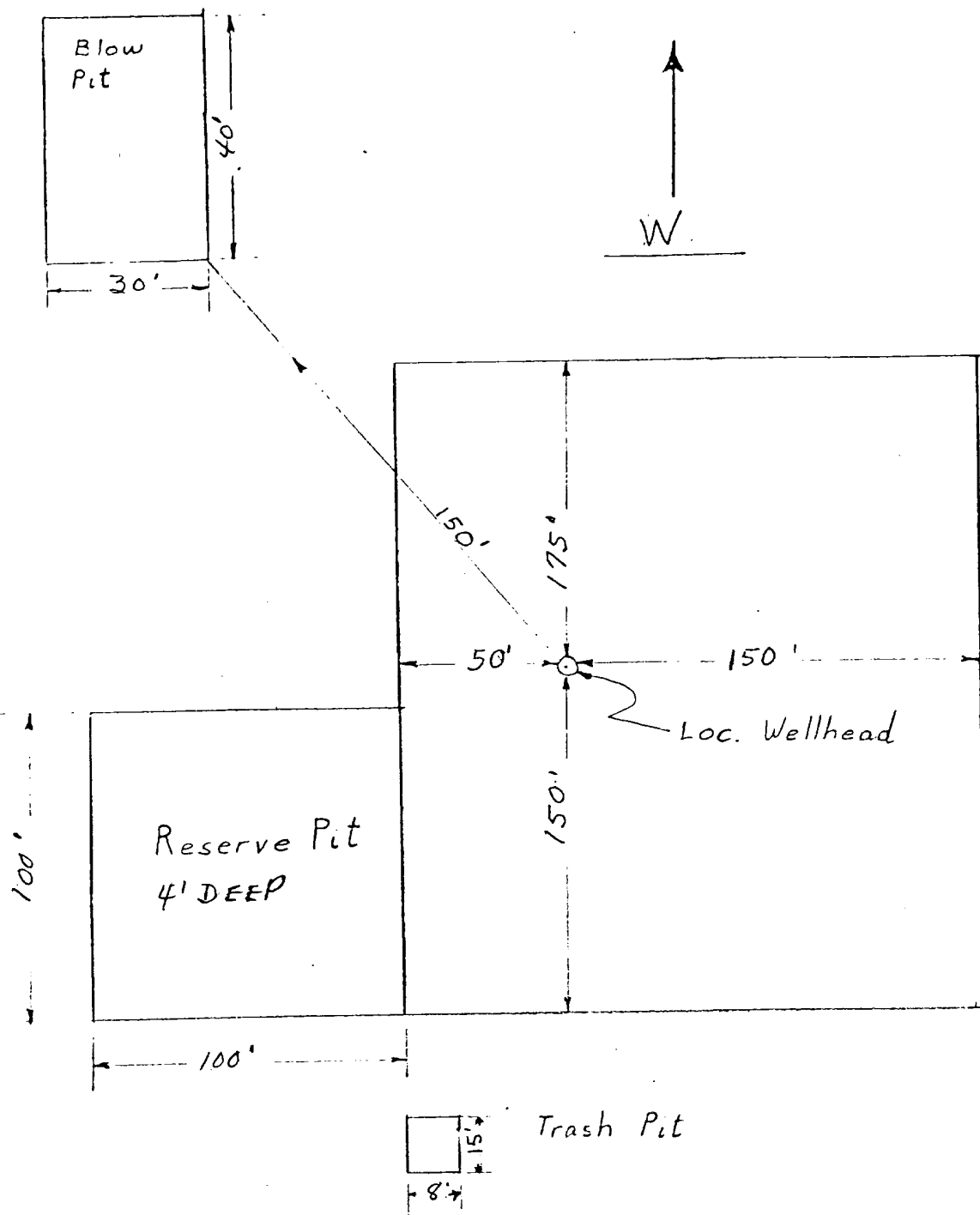
Vicinity Map for
AMOCO PRODUCTION COMPANY #17 JICARILLA CONTRACT
1520' FSL 870' FEL Sec 15-T25N-R5W
RIO ARriba COUNTY, NEW MEXICO

JAN 1 1979

SCALE
1:4556

2000
30
TOUR INT
ATUM IS MO

WITH GRID AND 1963 MAGNETIC NORTH



RECEIVED
 APPROXIMATELY 1.2 Acres
 JAN 18 1979

U. S. GEOLOGICAL SURV.

Amoco Production Company	SCALE: NONE
DRILLING LOCATION SPECS JICARILLA CONTRACT 148 NO. 17	DRG. NO.

SEEDING PLAN

1. TIME:

All seeding will take place between July 1 and September 15.

2. EQUIPMENT:

Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted not less than one-half inch deep or more than one inch deep. The seeder will be followed with a drag, packer, or roller to insure uniform coverage of the seed, and adequate compaction. Drilling will be done on the contour where possible, not up and down the slope. Where slopes are too steep for contour drilling, a "cyclone" hand seeder or similar broadcast seeder will be used. Seed will then be covered to the depth described above by whatever means is practical.

3. SPECIES TO BE PLANTED IN POUNDS PURE-LIVE-SEED PER ACRE:

CRESTED WHEATGRASS	0.71 lbs.
RUSSIAN WILD RYE	0.86 lbs.
ORCHARD GRASS	0.298 lbs.
PERENNIAL RYE GRASS	0.57 lbs.
WESTERN WHEAT GRASS	1.43 lbs.
SMOOTH BROME	1.14 lbs.
INTERMEDIATE WHEAT	0.91 lbs.
PUBESCENT WHEAT GRASS	1.09 lbs.

411 - 0 EIVE L
JAN 18 1979

U. S. GEOLOGICAL SURV

JICARILLA CONTRACT 148 NO. 17
1520' FSL & 870' FEL, SECTION 15, T25N, R5W
RIO ARRIBA COUNTY, NEW MEXICO

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 be best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by AMOCO PRODUCTION
COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

January 10, 1979

Date



District Supt.

Name and Title

Amoco Production Company's Representative:

L. O. Speer, Jr.

Phone: Office: 505-325-8841; Home: 505-325-3247

Address: 501 Airport Drive
Farmington, NM 87401

RECEIVED
JAN 18 1979

U. S. GEOLOGICAL SURVEY