

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

1560' FNL x 1790' FEL, Section 9, T-26-N, R-4-W

At proposed prod. zone

Same

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

21 miles SSE of Gobernador

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

1560'

18. DISTANCE FROM PROPOSED LOCATION*

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

300'

16. NO. OF ACRES IN LEASE

2567.94

19. PROPOSED DEPTH

6250'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

20. ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START*

As soon as well permitted

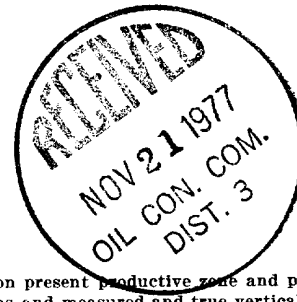
21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7139' GL

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13-3/8"	9-5/8"	36#	350'	300 ex
8-3/4"	7"	20#	4250'	940 ex
6-1/4"	4-1/2"	10.5#	6250'	220 ex

The above well is being drilled to further develop the Blanco Mesaverde Field. The well will be drilled with a low solids non-dispersed mud system. Completion design will be based on open hole logs. The acreage is dedicated to the Gas Company of New Mexico. 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

Area Superintendent

DATE 11/16/77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

Okel

*See Instructions On Reverse Side

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NOV 18 1977

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

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.

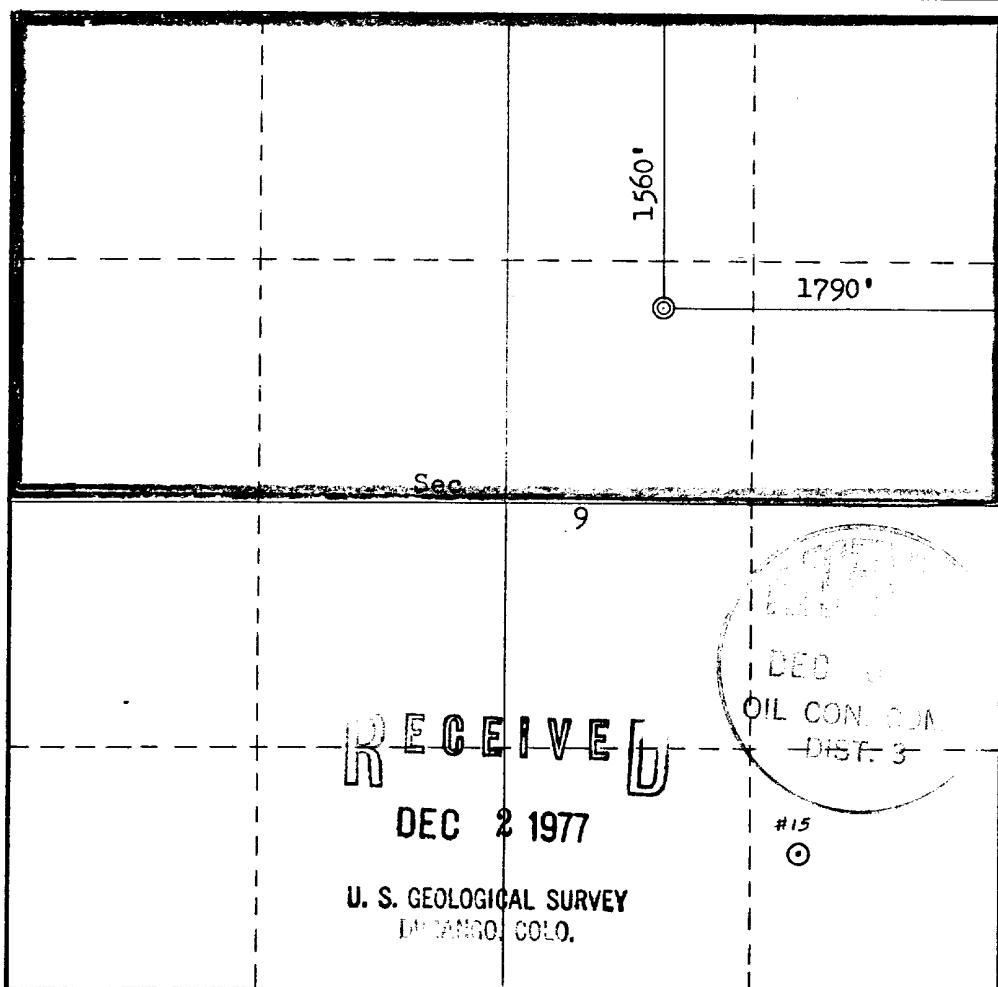
Operator Amoco Production Company			Lease Jicarilla Apache 102		Well No. 29
Unit Letter G	Section 9	Township 26N	Range 4W	County Rio Arriba	
Actual Footage Location of Well: 1560 feet from the North line and 1790 feet from the East line					
Ground Level Elev. 7139	Producing Formation Mesaverde		Pool Blanco Mesaverde		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



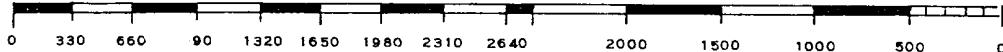
CERTIFICATION

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
AREA ENGINEER
Company
AMOCO PRODUCTION COMPANY
Date
NOVEMBER 10, 1977

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 7, 1977
Registered Professional Engineer and/or Land Surveyor
Fred B. Kerr Jr.
Certificate No.
3950



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <u>Jicarilla Apache 102</u>
2. NAME OF OPERATOR <u>AMOCO PRODUCTION COMPANY</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <u>Jicarilla Apache</u>
3. ADDRESS OF OPERATOR <u>501 Airport Drive, Farmington, NM 87401</u>		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <u>1560' FNL & 1790' FEL, Section 9, T-26-N, R-4-W</u>		8. FARM OR LEASE NAME <u>Jicarilla Apache 102</u>
14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.) <u>7139' GL</u>	9. WELL NO. <u>29</u>
		10. FIELD AND POOL, OR WILDCAT <u>Blanco Mesaverde</u>
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <u>SW/4 NE/4 Section 9, T-26-N, R-4-W</u>
		12. COUNTY OR PARISH <u>Rio Arriba</u>
		13. STATE <u>New Mexico</u>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

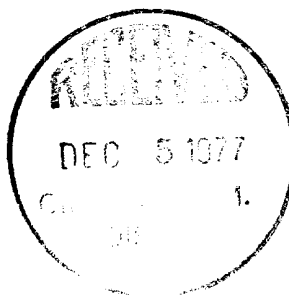
SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <u>Corrected Survey Plat</u>	<input checked="" type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

A corrected survey plat is being filed to show dedicated acreage as 320 acres instead of 160 acres.



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DEC 2 1977

U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

18. I hereby certify that the foregoing is true and correct

SIGNED J. L. Rugh
(This space for Federal or State office use)

TITLE Area Engineer

DATE 11/28/77

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

*See Instructions on Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-4-65

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

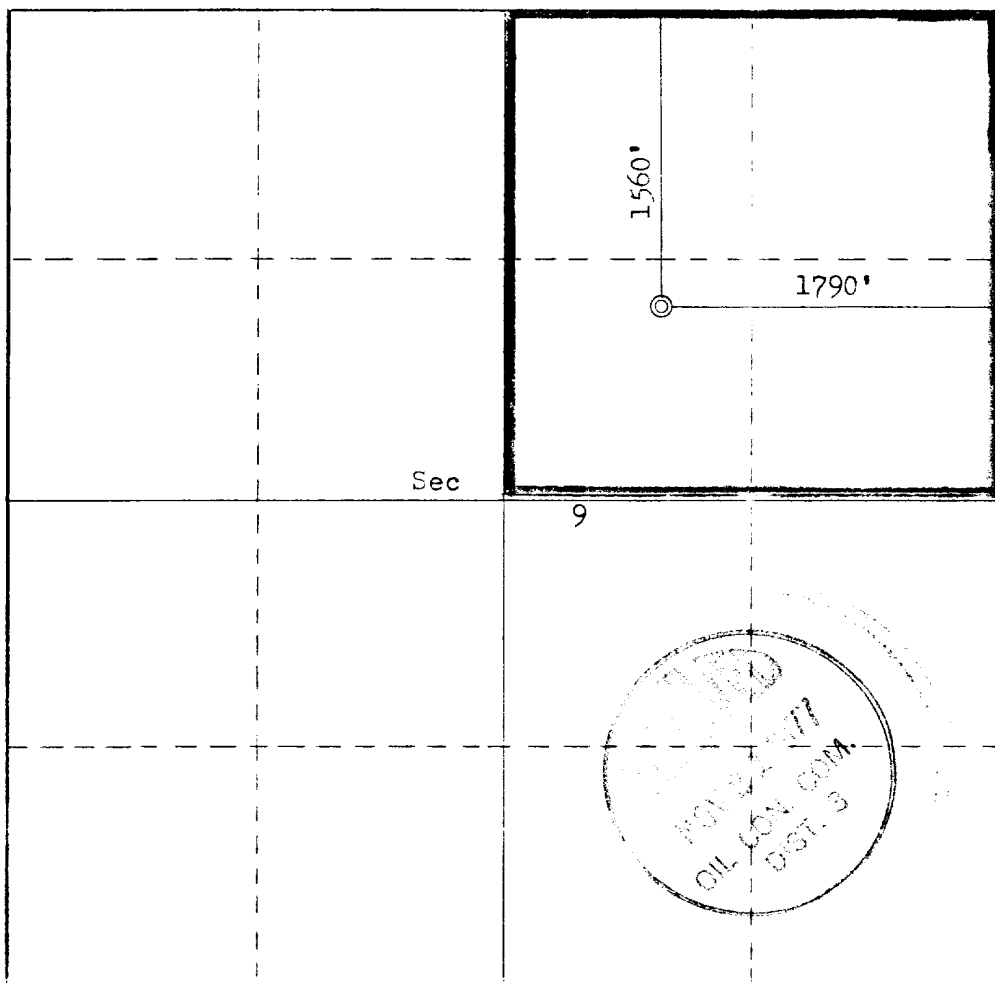
Operator Amoco Production Company			Lease Jicarilla Apache 102		Well No. 29
Unit Letter G	Section 9	Township 26N	Range 4W	County Rio Arriba	
Actual Footage Location of Well: 1560 feet from the North line and 1790 feet from the East line					
Ground Level Elev. 7139	Producing Formation Mesaverde		Pool Blanco Mesaverde	Dedicated Acreage: 16.0 Acres	

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

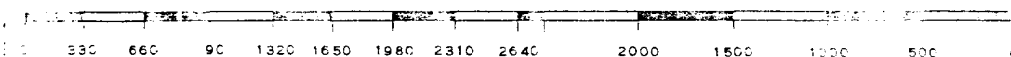
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
J. L. KRUPKA
Position
AREA ENGINEER
Company
AMOCO PRODUCTION COMPANY
Date
NOVEMBER 10, 1977

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 7, 1977
Registered Professional Engineer and/or Land Surveyor
Fred B. Kerr Jr.

Certificate No.
3950



SUPPLEMENTAL INFORMATION TO FORM 9-331C
 REQUIRED BY NTL-6
 JICARILLA APACHE 102 NO. 29
 1560' FNL x 1790' FEL, SECTION 9, T-26-N, R-4-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	3846'	+3305'
Cliffhouse	4800'	+2351'
Menefee	5535'	+1616'
Point Lookout	5990'	+1161'
Mancos	6150'	+1001'
TD	6250'	+ 901'

Estimated KB Elevation: 7152'

<u>EST. DEPTH</u>	<u>CSG. SIZE</u>	<u>WEIGHT</u>	<u>HOLE SIZE</u>	<u>SACKS CEMENT</u>	<u>-</u>	<u>TYPE</u>
350'	9-5/8"	36#	13-3/8"	300	- Class "B", 2% CaCl ₂ .	
4250'	7"	20#	8-3/4"	940	- Class "B", 6% Gel, 2# Med Tuf Plug per Sack	
6250'	4-1/2"	10.5#	6-1/4"	240	- Class "B" Neat.	

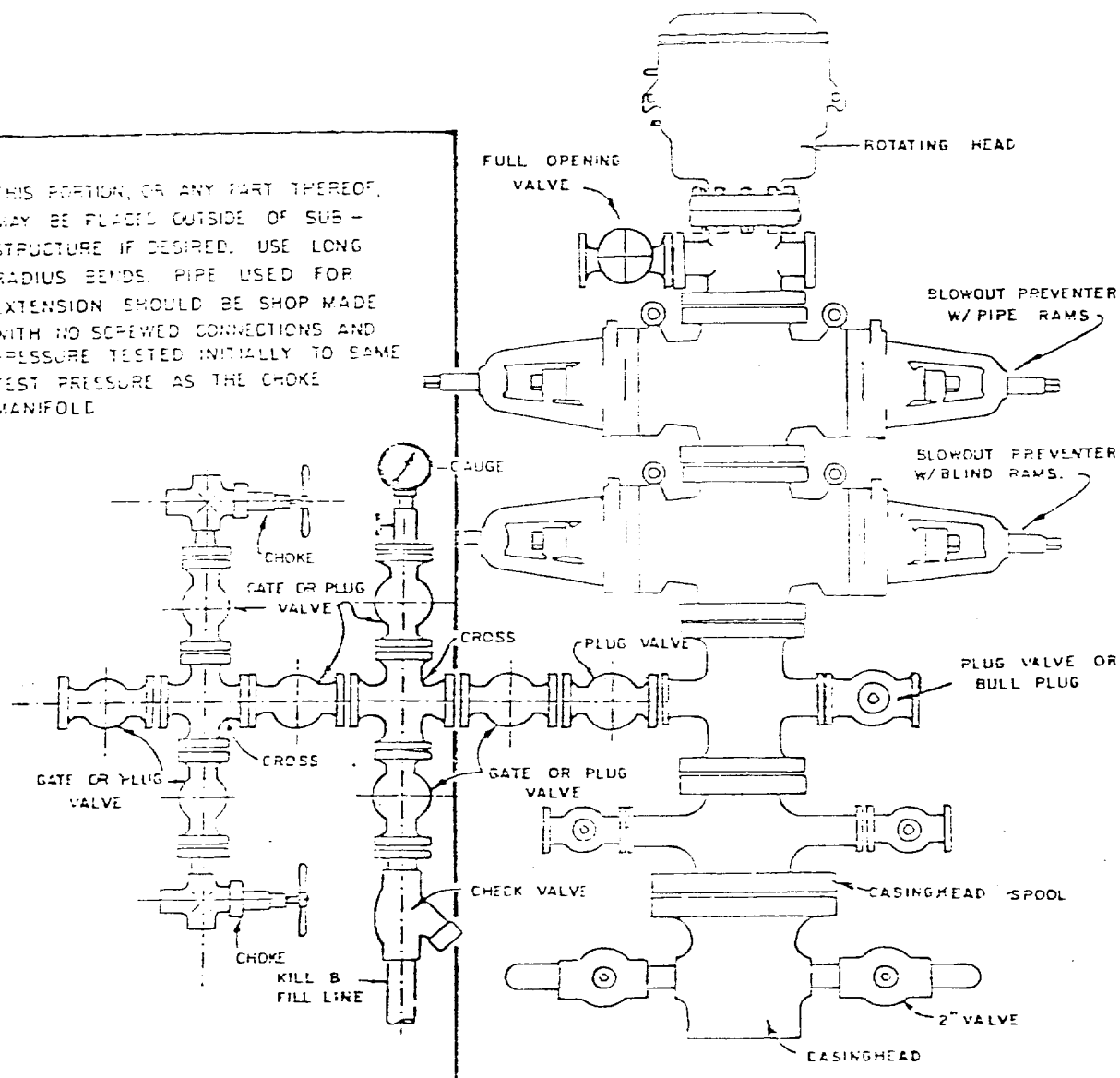
Amoco's standard blowout prevention will be employed; see attached drawing of our blowout preventer design.

Drilling fluid to TD will be a low solids non-dispersed mud system.

Amoco plans to run the following logs from TD to 4250': Induction-Electric, Density-Gamma Ray. No Cores or Drill Stem Tests will be taken.

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

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



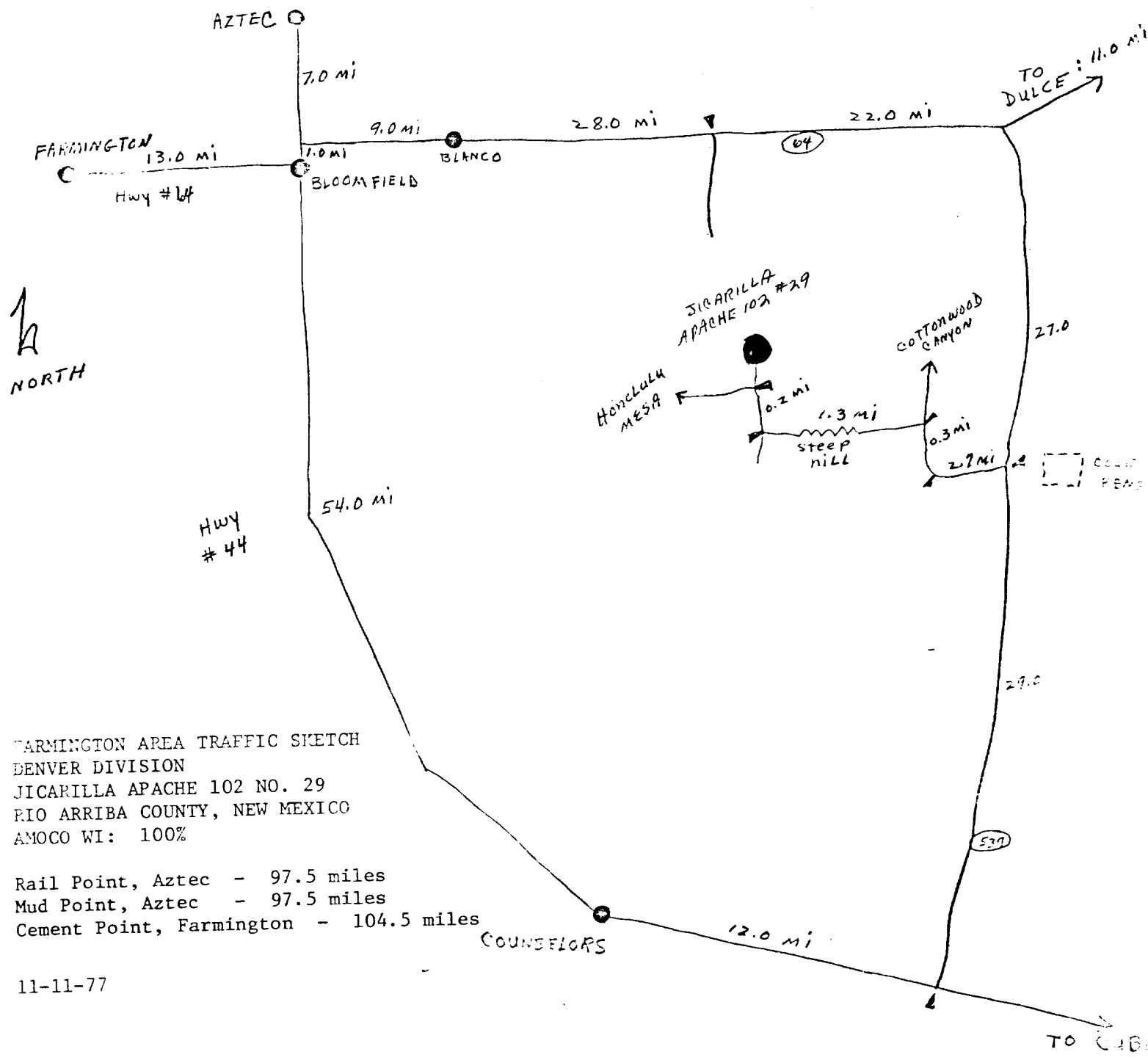
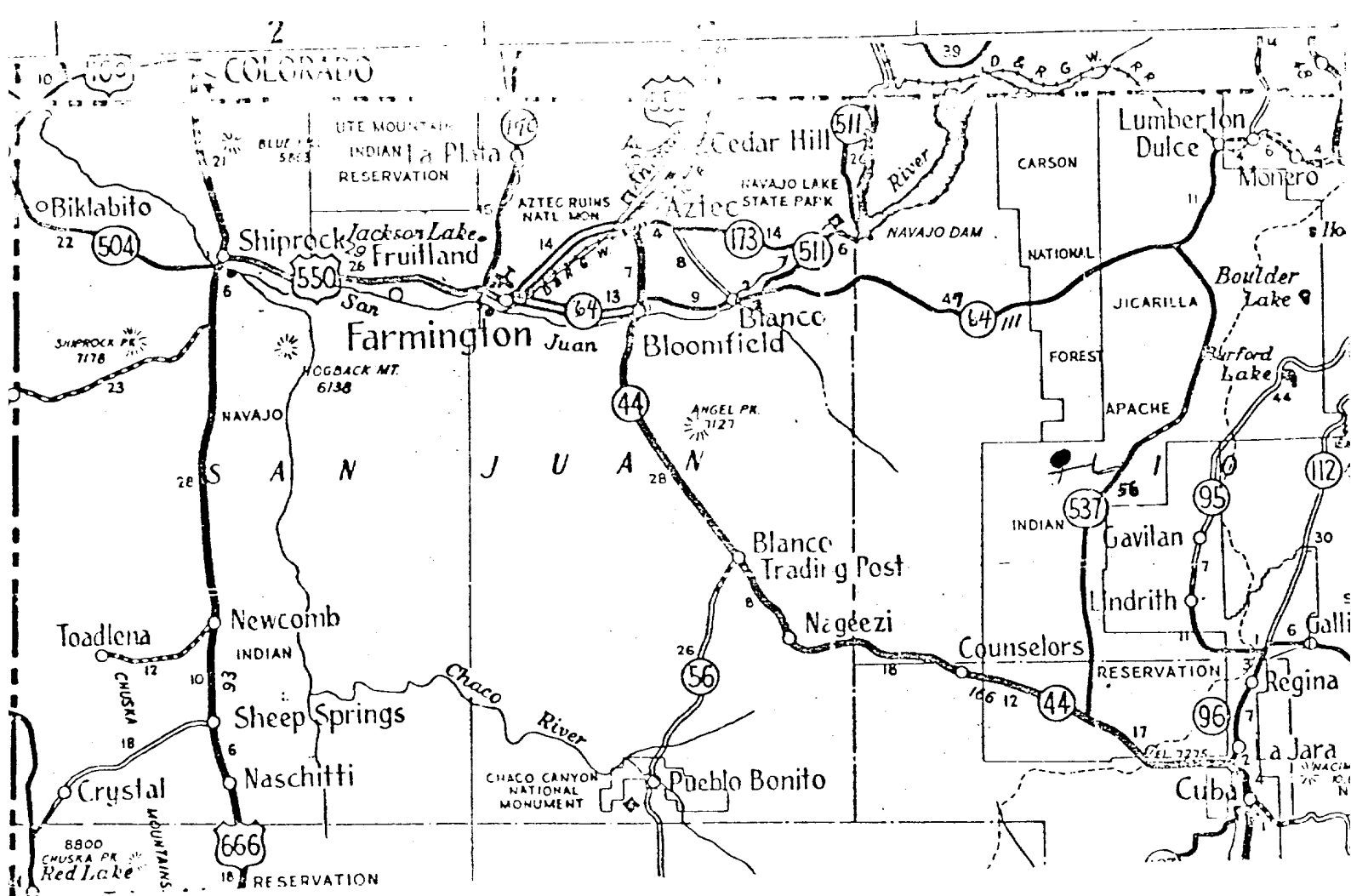
BLOWOUT PREVENTER HOOKUP

MULTI-POINT SURFACE USE PLAN

JICARILLA APACHE 102 NO. 29
1560' FNL & 1790' FEL, SECTION 9, T-26-N, R-4-W
RIO ARriba COUNTY, NEW MEXICO

1. The attached road map and sketch show the proposed route to the location and distances from nearby towns.
2. No new access road will be constructed as access to the location will be over an existing road.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
4. There is a 380-barrel storage tank and facilities located at Jicarilla Apache 102 No. 12 which is spotted on the vicinity map.
5. The water for drilling will be hauled from a water hole in Tapacito Wash a distance of approximately 7 miles.
6. No construction material will be hauled in for building location.
7. Disposal of excess mud will be by hauling out of reserve pit and put on roads and bladed in.
8. There are neither airstrips nor camps in the vicinity.
9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 4-foot cut on the east side of location will be required.
10. Restoration of the surface will be accomplished by cleaning up and levelling upon completion of the well. Reseeding of the site will be carried out as detailed in the attached Seeding Plan.
11. The general topography and soil characteristics are a sandy clay which supports a vegetation of blue grama, rabbitbrush, Indian rice grass, galleta, tumbleweed, and sagebrush. The mesa top (Honolulu Mesa) is relatively level with a northerly drainage. Sandstone outcrops are abundant as are deposits of alluvium.

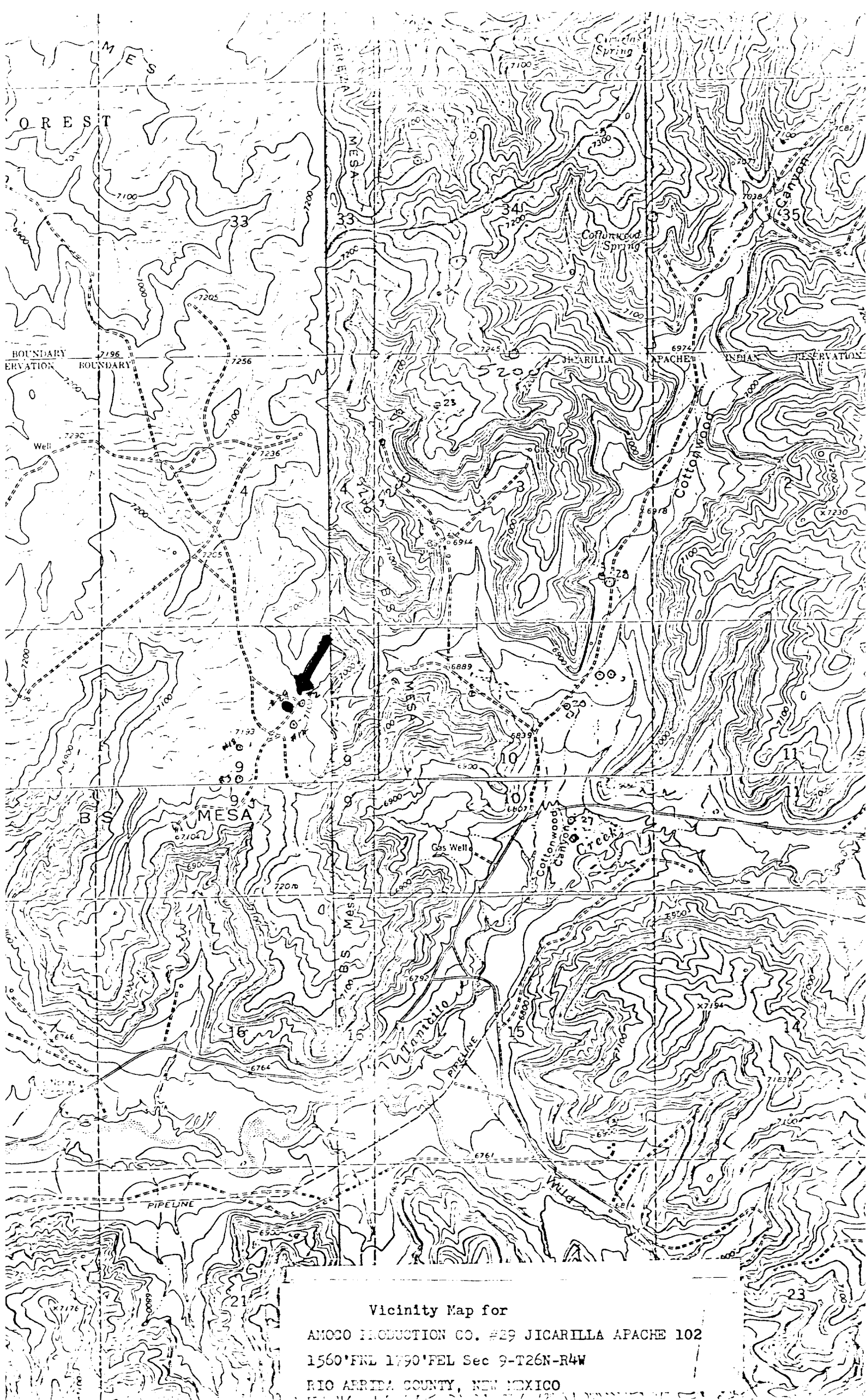
No cultural resources were found when inspected by Ms. Dabney Ford, Archaeologist, and clearance is recommended.
12. A Certification Statement by Amoco's representative is included.

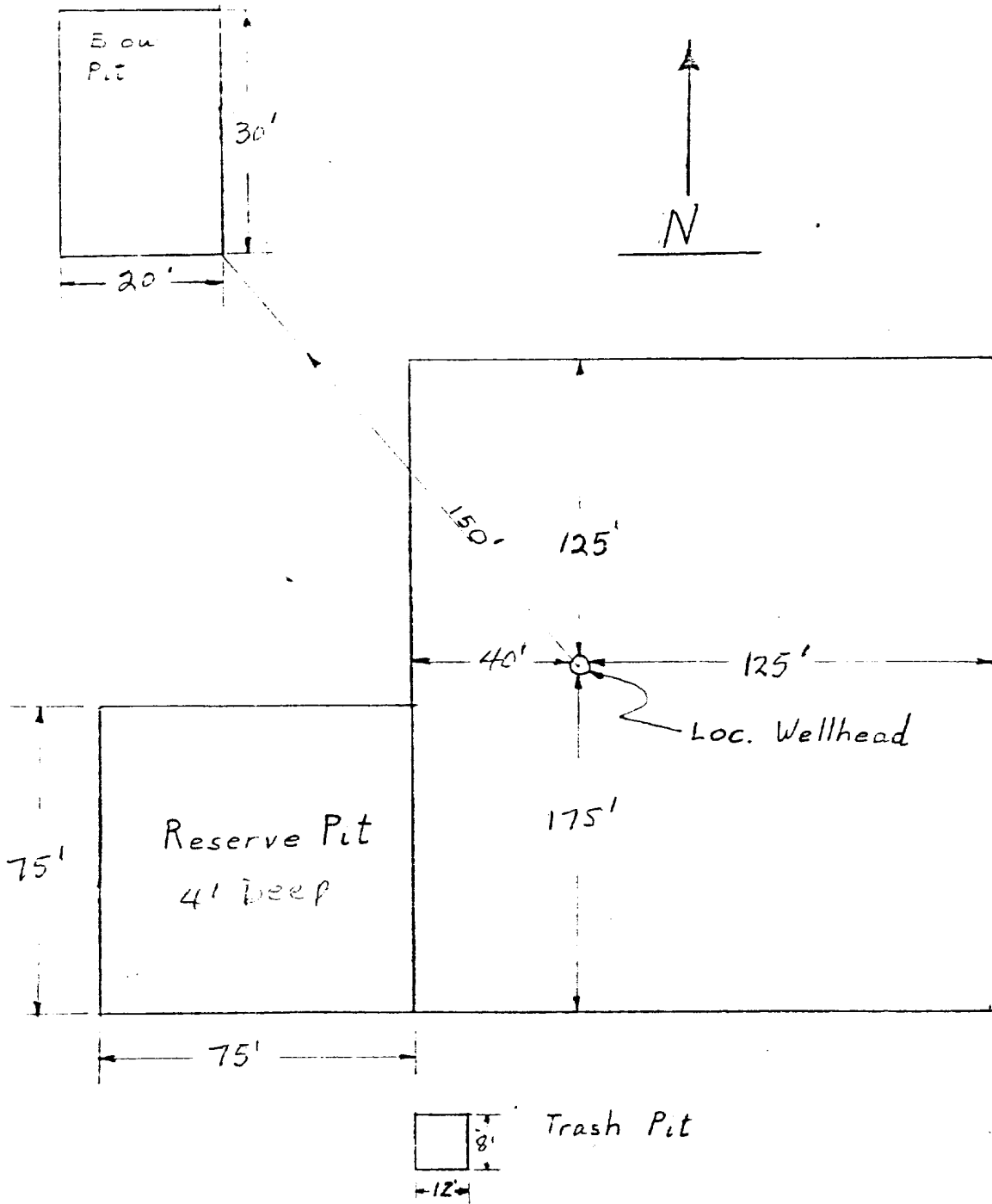


FARMINGTON AREA TRAFFIC SKETCH
 DENVER DIVISION
 JICARILLA APACHE 102 NO. 29
 RIO ARriba COUNTY, NEW MEXICO
 AMOCO WI: 100%

Rail Point, Aztec - 97.5 miles
 Mud Point, Aztec - 97.5 miles
 Cement Point, Farmington - 104.5 miles

11-11-77





— APPROXIMATELY 1.2 Acres —

Amoco Production Company		SCALE: NONE
DRILLING LOCATION SPECS JICARILLA APACHE 102 NO. 29		DRG. NO.

SEEDING PLAN

1. TIME:

All seeding will take place between July 1, and September 15, 1978, or as required by the U. S. Forest Service.

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, no 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.
Perennial Rye Grass	0.57 lbs.
Westerr Wheatgrass	1.43 lbs.
Smooth Brome	1.14 lbs.
Intermediate Wheat	0.91 lbs.
Pubescent Wheatgrass	1.09 lbs.
Orchard Grass	.298 lbs.