

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

| | | | | | |
|---|--|---|--|--|--|
| 1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> | | | 5. LEASE DESIGNATION AND SERIAL NO. 30-039-21477 NO. 14913 | | |
| b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/> | | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME | | |
| 2. NAME OF OPERATOR AMCO PRODUCTION COMPANY | | | 7. UNIT AGREEMENT NAME Valencia Canyon Unit | | |
| 3. ADDRESS OF OPERATOR 501 AIRPORT DRIVE, FARMINGTON, NEW MEXICO 87401 | | | 8. FARM OR LEASE NAME | | |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1850 NWL & 1075 NWL, Section 35, T-28-N, R-4-W At proposed prod. zone Same | | | 9. WELL NO. 6 | | |
| 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 11 miles SE of Gobernador | | | 10. FIELD AND POOL, OR WILDCAT Chozas Mesa Pictured Cliffs | | |
| 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1075' | | 16. NO. OF ACRES IN LEASE 640 | | 17. NO. OF ACRES ASSIGNED TO THIS WELL 160 | |
| 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3035' | | 19. PROPOSED DEPTH 4490' | | 20. ROTARY OR CABLE TOOLS Rotary | |
| 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 7305' GL est. | | | | 22. APPROX. DATE WORK WILL START* As soon as permitted | |

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" | 24.5 | 300' | 225 sx |
| 6-1/4" | 4-1/2" | 9.55 | 4490' | 1040 sx |

The above well is being drilled to further develop the Chozas Mesa Pictured Cliffs Field. The well will be drilled with a low solids non-dispersed mud system. Completion design will be based on open hole logs. This acreage is not dedicated. Attached is a Development Plan required by HTL-6.



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. L. Rumph TITLE Area Engineer DATE 7/12/77
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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.

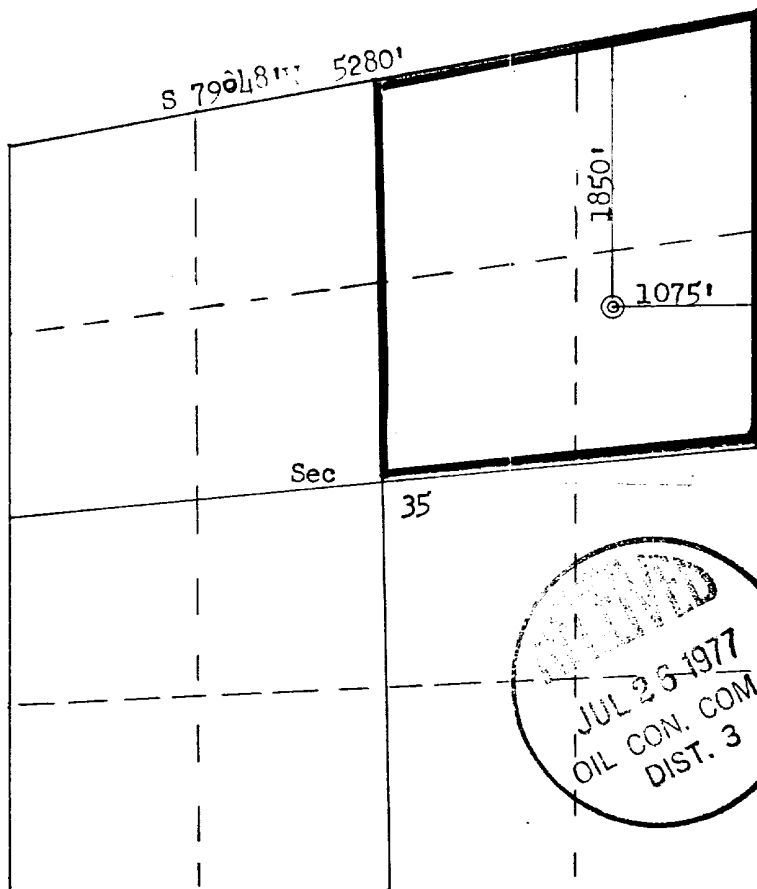
| | | | | | |
|--|---|------------------------|---|-----------------------------|--|
| Operator Amoco Petroleum Company | | | Lease Valencia Canyon Unit | | Well No. 6 |
| Unit Letter H | Section 35 | Township 28N | Range 4W | County Rio Arriba | |
| Actual Footage Location of Well: 1850 feet from the North line and 1075 feet from the East line | | | | | |
| Ground Level Elev. 7305 | Producing Formation Pictured Cliffs | | Pool Choza Mesa Pictured Cliffs | | Dedicated Acreage: 168 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
JULY 12, 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
June 15, 1977

Registered Professional Engineer and Land Surveyor
Fred B. Kerr Jr.

Certificate No.
3950

VALENCIA CANYON UNIT NO. 6
1850 FNL & 1075 FEL, SECTION 35, T-28-N, R-4-W
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 the 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.

P. O. Spencer Jr.
JS

JULY 12, 1977

Date

AREA SUPT.

Name and Title

DEVELOPMENT PLAN
VALENCIA CANYON UNIT NO. 6
1850 FNL & 1075 FEL, SECTION 35, T-28-N, R-4-W
RIO ARriba COUNTY, NEW MEXICO

The proposed location has big sagebrush and various grasses with occasional pinon trees. The geological name of the surface formation is the Paleozoic San Jose. A new road 1000' will be required. No construction materials will be used for building the location; dirt will be leveled at the well site. Verbal approval of the drill site has been obtained from Mr. Dick C. Cooke, U. S. Forest Service; Mr. Jerry Long, USGS; and Ms. Dabney Ford, Archaeologist.

Arrangements are being made to haul water from Carrizo Wash or from the El Paso water hole on existing roads, approximately ten miles. Drilling fluid to TD will be a low solids non-dispersed mud system. Upon completion the location will be cleaned up and leveled. Drilling mud and water will be hauled away and the reserve pit backfilled. Attached is the seeding plan to be followed for this well.

There are neither airstrips nor camps in the vicinity.

The estimated tops of important geological formations bearing hydrocarbons are:

| <u>FORMATION</u> | <u>DEPTH</u> | <u>ELEVATION</u> |
|------------------|--------------|------------------|
| Pictured Cliffs | 4180' | +3125' |
| Lewis Shale | 4330' | +2975' |

Estimated KB elevation:

| <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# | 12-1/2" | 175 sx - Class "B", 2% CaCl ₂ . |
| 4490' | 4-1/2" | 9.5# | 7-7/8" | 990 sx - Class "B", 6% Gel, 2# Med. Tuf Plug/sx. 50 sx - Class "B" Neat. |

Amoco's standard blowout prevention will be employed, see attached drawing for blowout preventer design.

Amoco plans to run the following logs: from 300' to TD, Induction-Electric; from 2470' to TD, 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 or hydrocarbon gas will be encountered.

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

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.

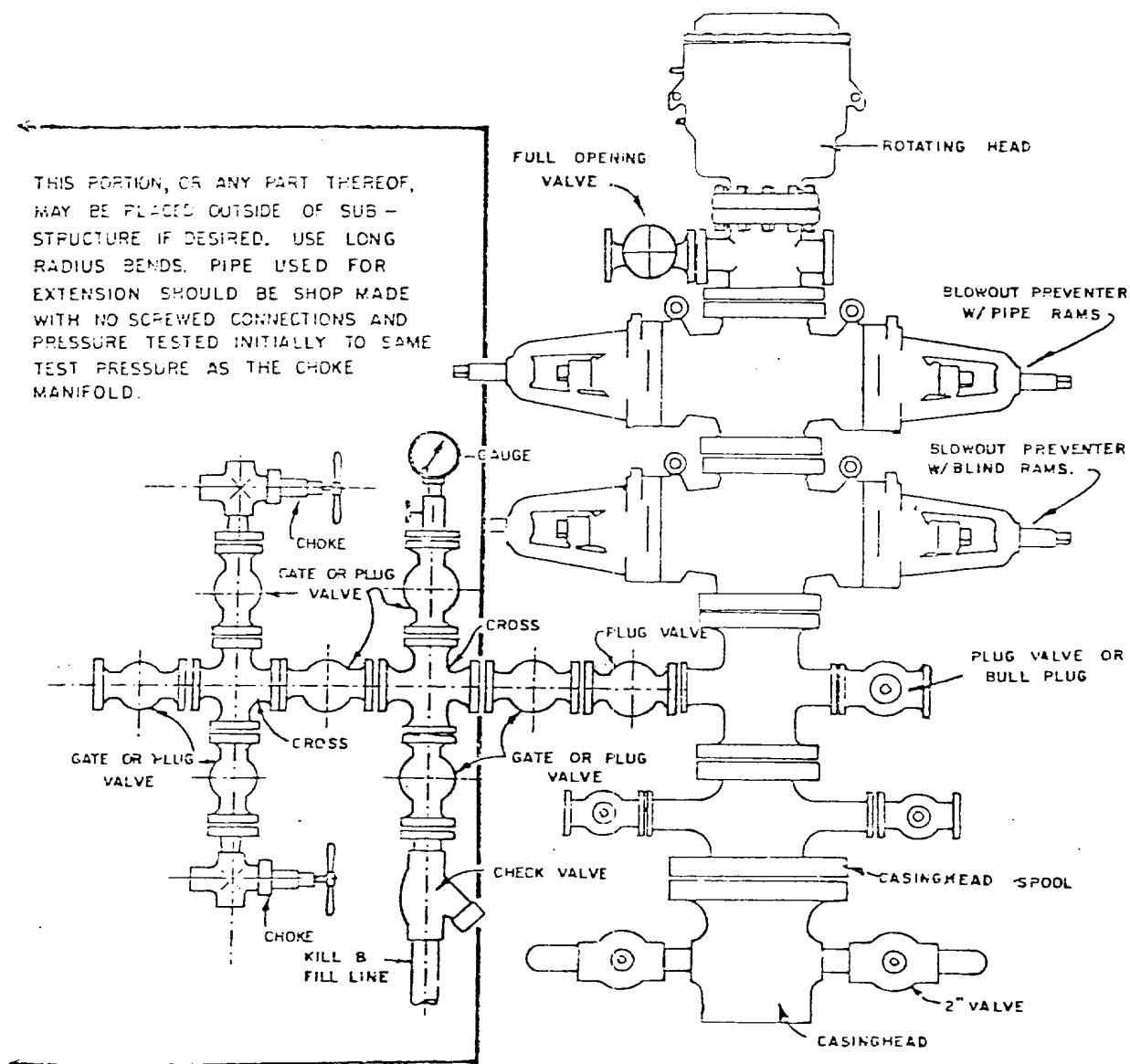
2. EQUIPMENT:

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.

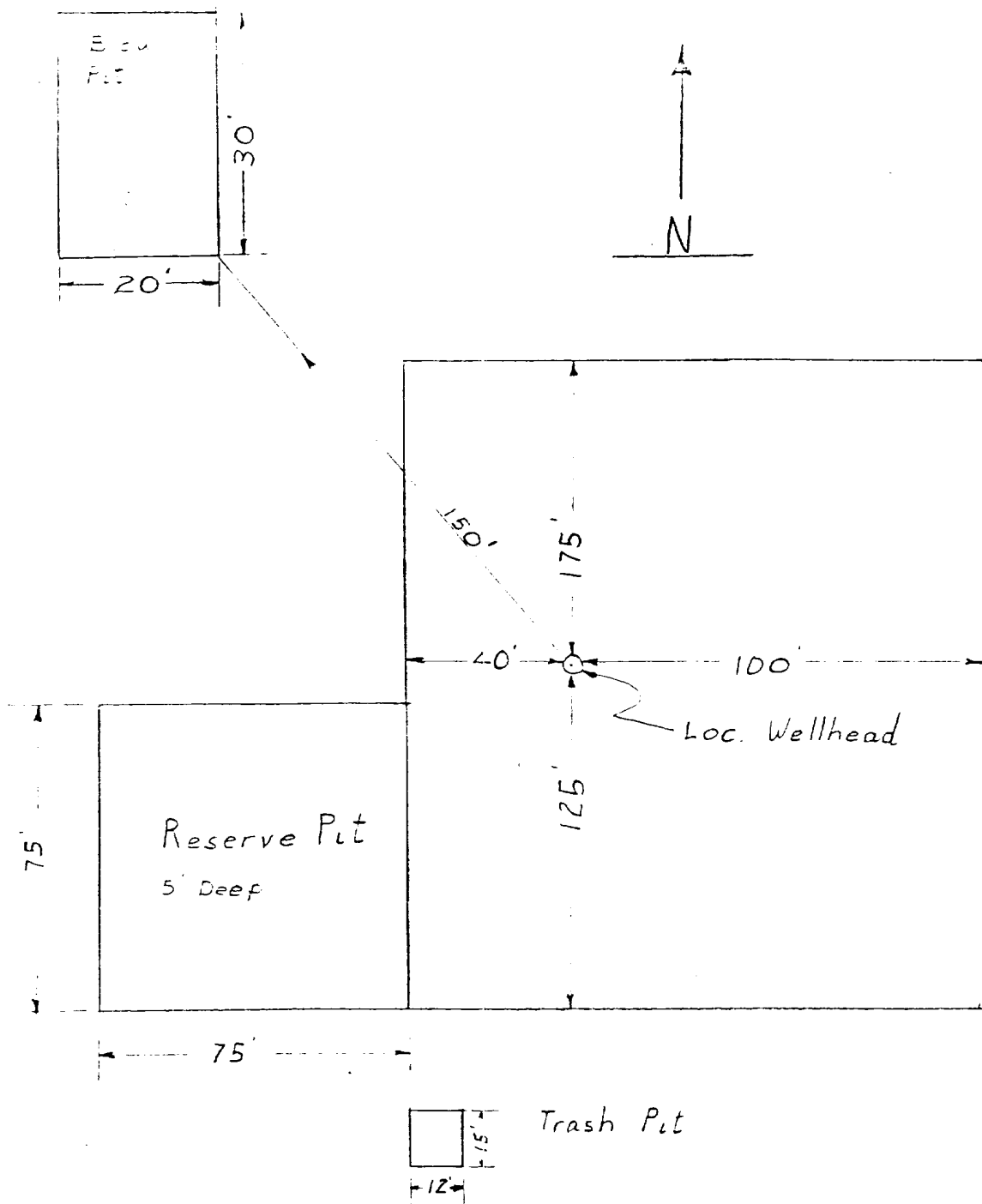
3. SPECIES TO BE PLANTED IN POUNDS PURE-LIVE-SEED PER ACRE:

| | |
|----------------------|-----------|
| Crested Wheatgrass | 0.71 lbs. |
| Russian Wild Rye | 0.86 lbs. |
| Perennial Rye Grass | 0.57 lbs. |
| Western Wheatgrass | 1.43 lbs. |
| Smooth Brome | 1.14 lbs. |
| Intermediate Wheat | 0.91 lbs. |
| Pubescent Wheatgrass | 1.09 lbs. |
| Orchard Grass | .298 lbs. |

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.

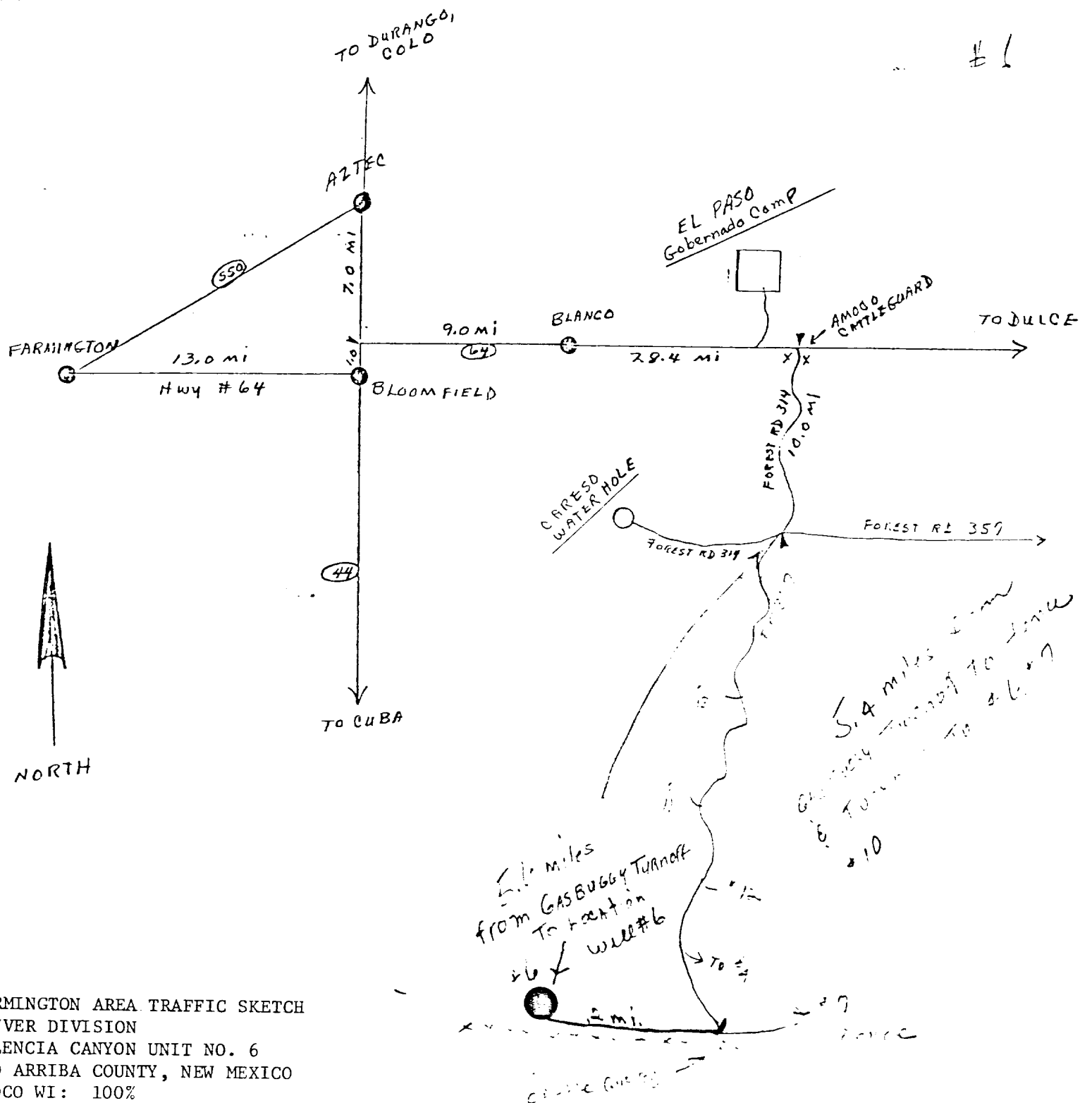
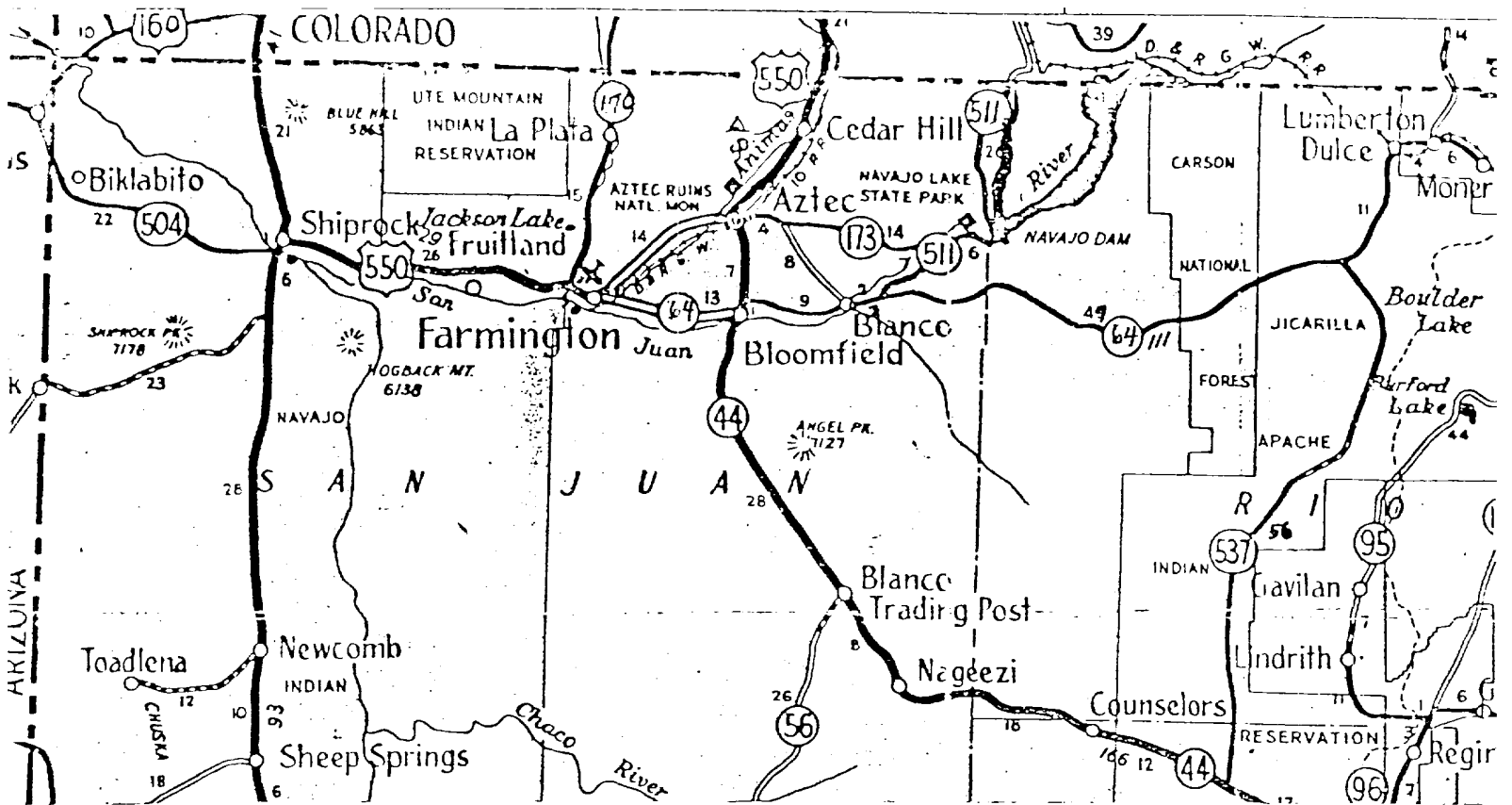


BLOWOUT PREVENTER HOOKUP



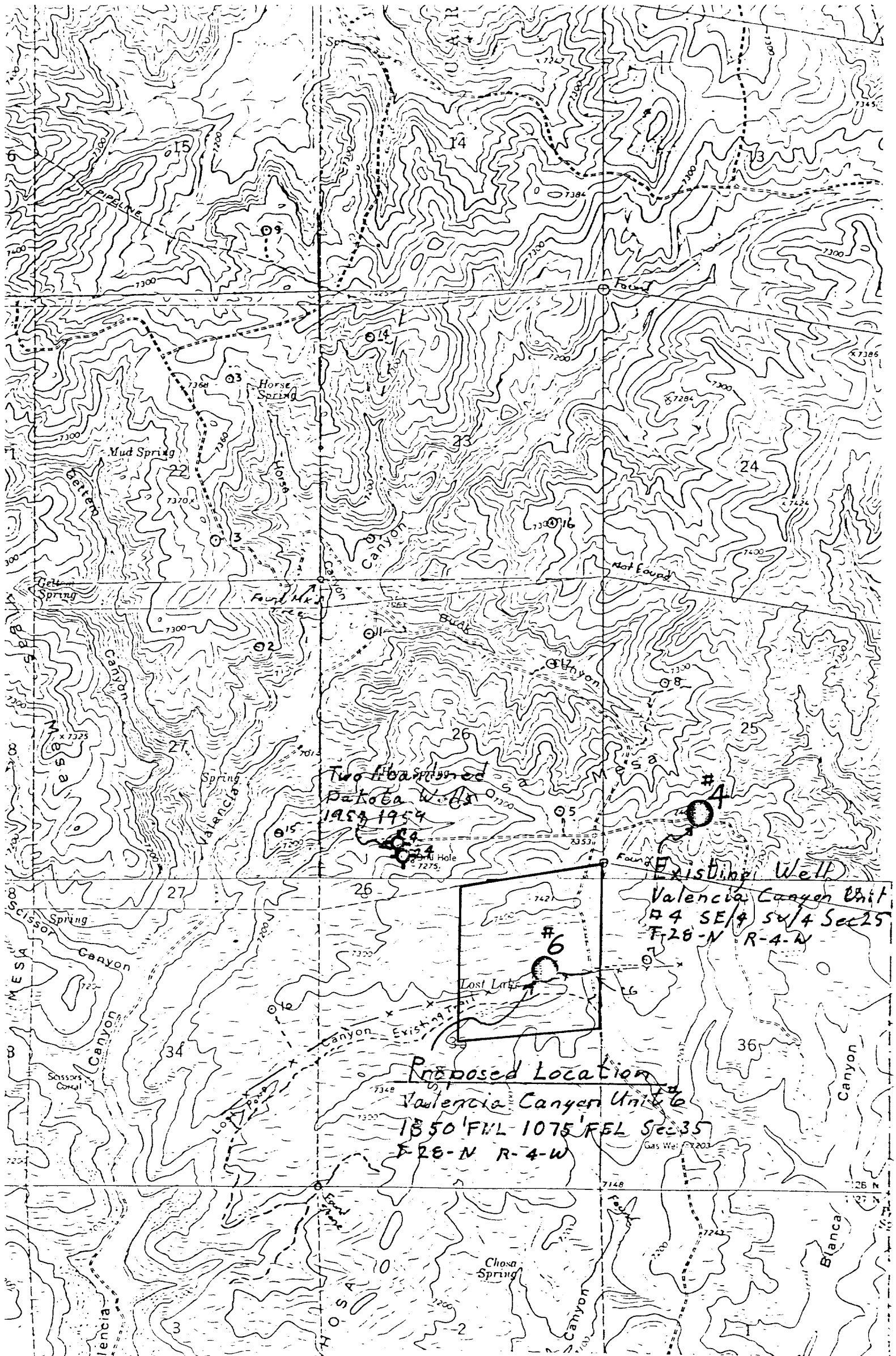
APPROXIMATELY 1.2 Acres

| | |
|---|-------------|
| Amoco Production Company | SCALE: NONE |
| DRILLING LOCATION SPECS VALENCIA CANYON UNIT NO. 6 | DRG. NO. |



FARMINGTON AREA TRAFFIC SKETCH
 INVER DIVISION
 LENCIA CANYON UNIT NO. 6
 O ARriba COUNTY, NEW MEXICO
 COCO WI: 100%

| | | |
|------------------------|---|------------|
| il Point, Aztec | - | 60.0 miles |
| d Point, Aztec | - | 60.0 miles |
| ment Point, Farmington | - | 67.0 miles |



Vicinity Map for
 AMOCO PRODUCTION CO. #6 Valencia Canyon Unit
 1850' FNL 1075' FEL Sec. 35 -T28N-R4W N.M.P.M.
 Rio Arriba County, New Mexico