

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  
Dietrich Exploration

3. ADDRESS OF OPERATOR  
410 17th Street - Suite 2450, Denver Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface 1860' from North Line  
At proposed prod. zone 2265' from West Line

5. LEASE DESIGNATION AND SERIAL NO.  
NM 28745

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal 6

9. WELL NO.  
522

10. FIELD AND POOL, OR WILDCAT  
Lybrock Gallup

11. SEC., T., R., M., OR BLK., AND SURVEY OR AREA  
Sec. 6 - T23N - R7W

12. COUNTY OR PARISH  
Rio Arriba

13. STATE  
New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
2 1/2 miles N.W. of Lybrock

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
375'

16. NO. OF ACRES IN LEASE, N.  
401.5

17. NO. OF ACRES ASSIGNED TO THIS WELL  
40

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
None

19. PROPOSED DEPTH  
5800'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6955' ground

22. APPROX. DATE WORK WILL START\*  
10-15-80

23. PROPOSED CASING AND CEMENTING PROGRAM

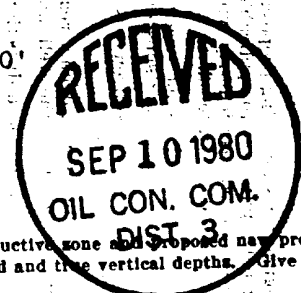
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24#	300'	275 sks
7 7/8	4 1/2	10.5#	5800'	1200 sks - 2 stage

Drill 12 1/4" hole to 300'. Set 8 5/8" 24# casing and cement with 275 sks Class B cement with 2% calcium chloride. Install blowout preventer as shown on the attached sketch. Drill 7 7/8" hole to 5250' with water. From 5250' to 5800' drill 7 7/8" hole with a low solid non-dispersed mud wt. 9.0-9.3 lbs./gal., 34-40 sec. viscosity, and water loss 8-10 cc. Run dual induction lateral log and formation density log with gamma ray and caliper. If electric logs are satisfactory run 4 1/2" 10.5# casing full depth and cement. Cement to cover corrosive Mesa Verde formation. Perforate pay zones, frac treat and place on production. No abnormal temperatures, pressures, or hazardous conditions are expected.

Estimated tops of Geologic Markers:

Fruitland - 1712'  
Picture Cliff - 1874'  
Chacra - 2294'  
Cliff House - 2734'

Pt. Lookout - 4130'  
Mancos - 4450'  
Gallup - 5250'



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.

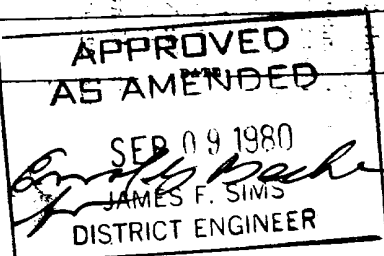
24. SIGNED [Signature] TITLE Agent DATE 8/2/80  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

APPROVED BY [Signature]  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_



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

Operator <b>DIETRICH EXPLORATION COMPANY, INC.</b>			Lease <b>FEDERAL 6</b>		Well No. <b>22</b>
Unit Letter <b>F</b>	Section <b>6</b>	Township <b>23N</b>	Range <b>7W</b>	County <b>Rio Arriba</b>	

Actual Footage Location of Well:

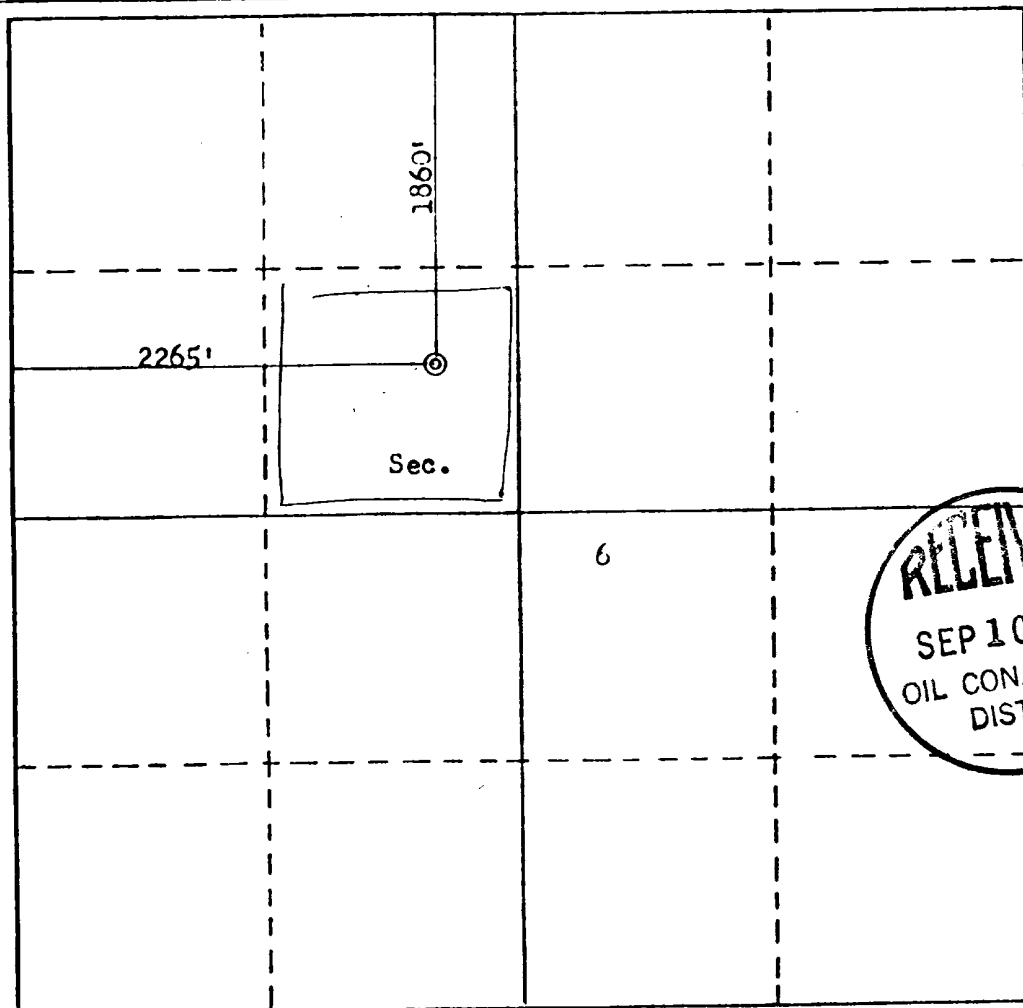
<b>1860</b>	feet from the	<b>North</b>	line and	<b>2265</b>	feet from the	<b>West</b>	line
Ground Level Elev. <b>6955</b>	Producing Formation <b>Gallop</b>		Pool <b>Lybrook</b>		Dedicated Acreage <b>40</b>		Acre

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.) \_\_\_\_\_

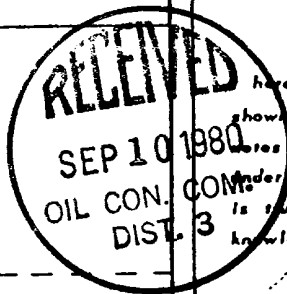
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

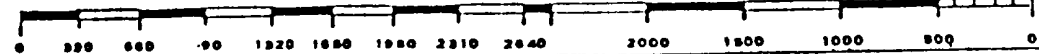
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

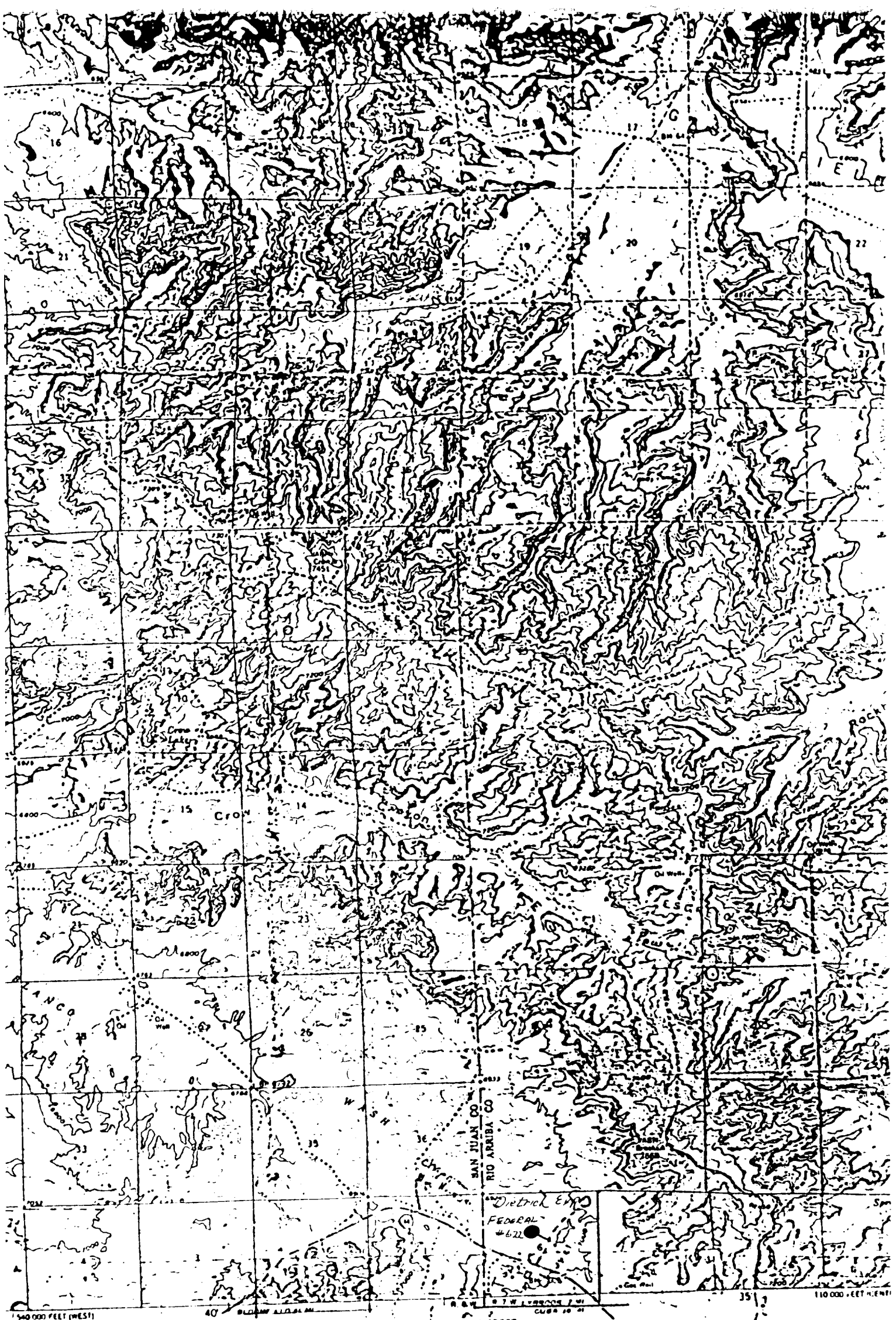
Name  
*[Signature]*  
Position  
*AGE - 27*  
Company  
*DIETRICH EXPLORATION COMPANY*  
Date  
*8/2/80*



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  
*May 30, 1980*  
Registered Professional Engineer and/or Land Surveyor  
*[Signature]*  
*Fred B. Kerr Jr.*  
Certificate No.  
*3950*





Vicinity Map for  
 DIETRICH EXPLORATION CO, INC. #22 FEDERAL 6  
 1860'FNL 2265'FWL Sec. 6-T23N-R7W  
 RIO ARriba COUNTY, NEW MEXICO

APPROXIMATE MEAN  
 DECLINATION, 1959

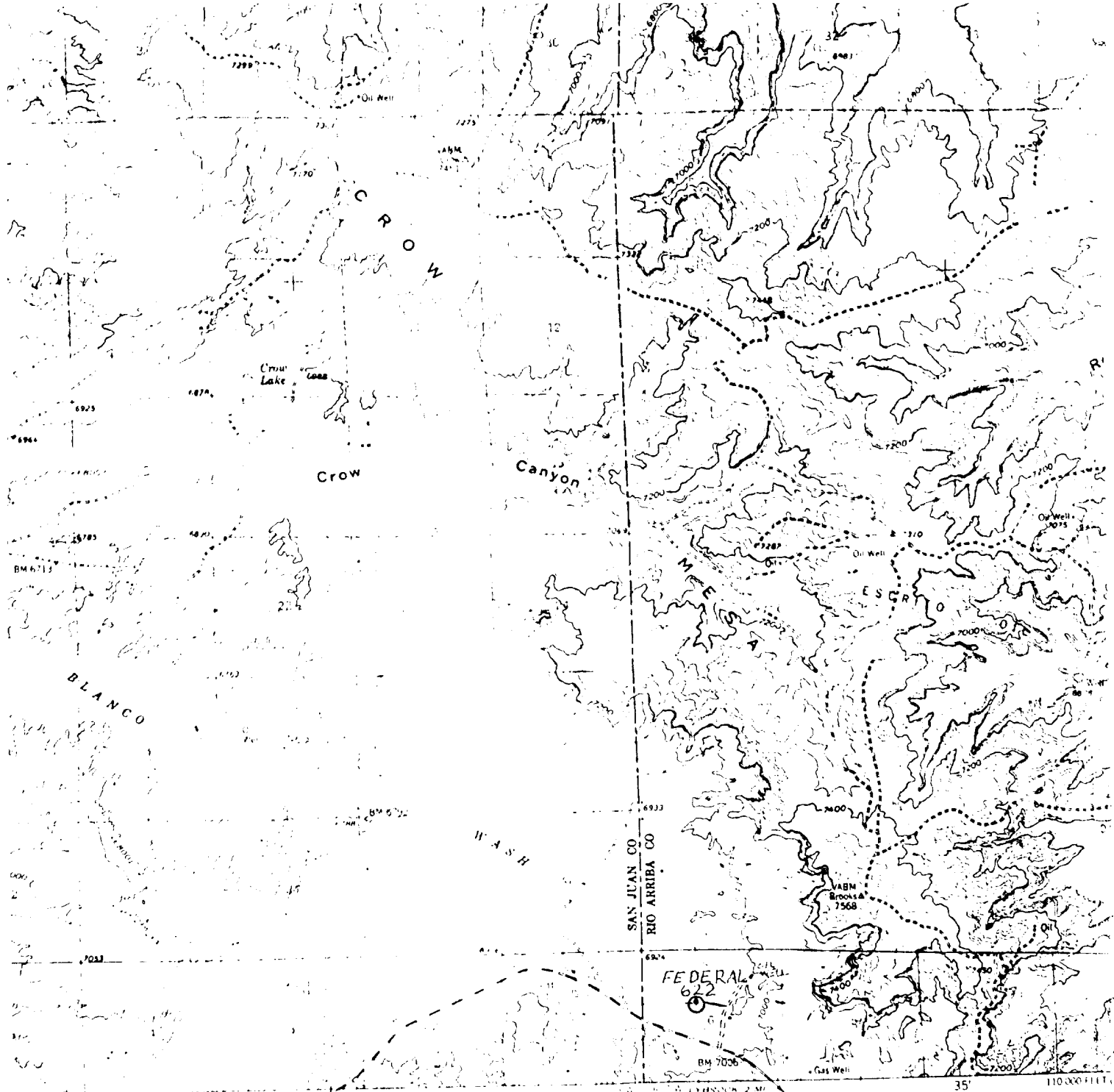
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D.C.  
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

SURFACE USE AND OPERATIONS PLAN - Dietrich Exploration - FEDERAL # 622

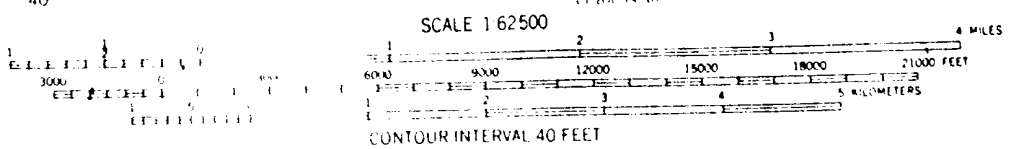
1. Existing Roads - shown on the enclosed topographic map. (Exhibit A)
2. Planned access road - See enclosed map exhibit A. Road will be 20' wide with culverts installed as necessary.
3. Location of existing wells - Shown on the enclosed topographic map. (Exhibit A)
4. Existing production facilities owned by this operator are on the location of the Hat Tah E Yazzie #1 shown on map (Exhibit B) consisting of a heat treater, tank and gas compressor station.
5. Location and type water supply - A natural spring on Val Chapman's property located at Escrito trading post approximately 2 miles to the Southeast.
6. Construction materials - none required.
7. Waste Disposal - A burn pit will be provided for disposal of trash. A reserve pit will be used to dispose of drilling fluids and cuttings.
8. Ancillary Facilities - None required.
9. Well site layout - See enclosed plat (Exhibit C)
10. Surface restoration - When pits are in suitable condition they will be filled. All disturbed surfaces not used after drilling and completing will be graded to blend into the natural terrain and seeded.
11. Other information - See Archaeological Survey
12. Operator's Representative: J D Hicks, P. O. Box 174, Farmington, New Mexico 87401 - Phone 327-4902 or 325-3950.
13. 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 Dietrich Exploration Company, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

8/2/80  
Date

J D Hicks Agent  
Name and Title



TRUE NORTH  
MAGNETIC NORTH  
APPROXIMATE MEAN  
DECLINATION, 1959



EXISTING ROADS  
PROPOSED ACCESS  
PROPOSED WELL SITE

FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D.C.  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

EXHIBIT A

4550 1.62 500  
(NAGEEZ) 1.62 500

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



107°37'30"  
36°15'

2650000 E

167

35'

Exhibit 'B'

T23N-R7W

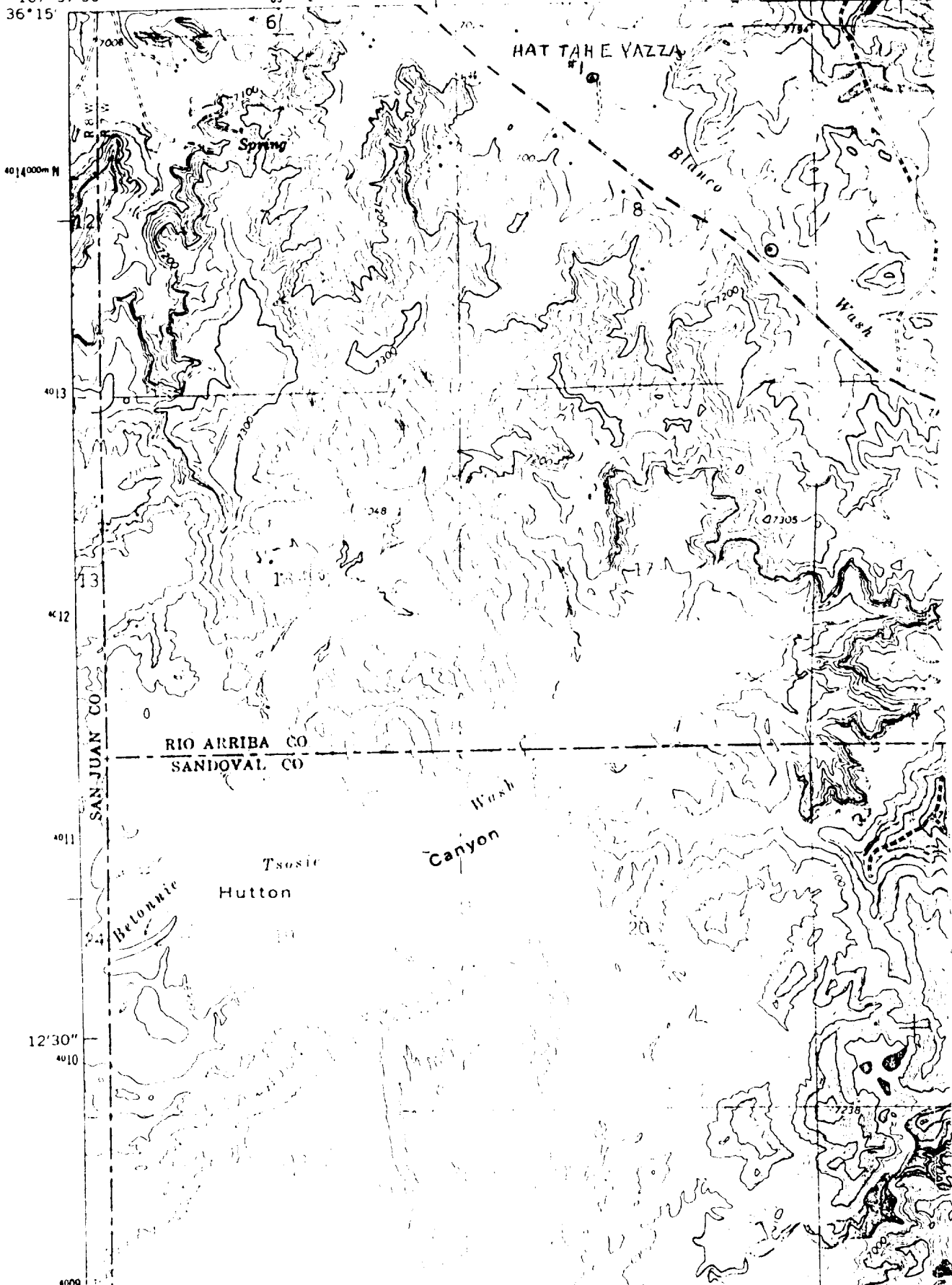
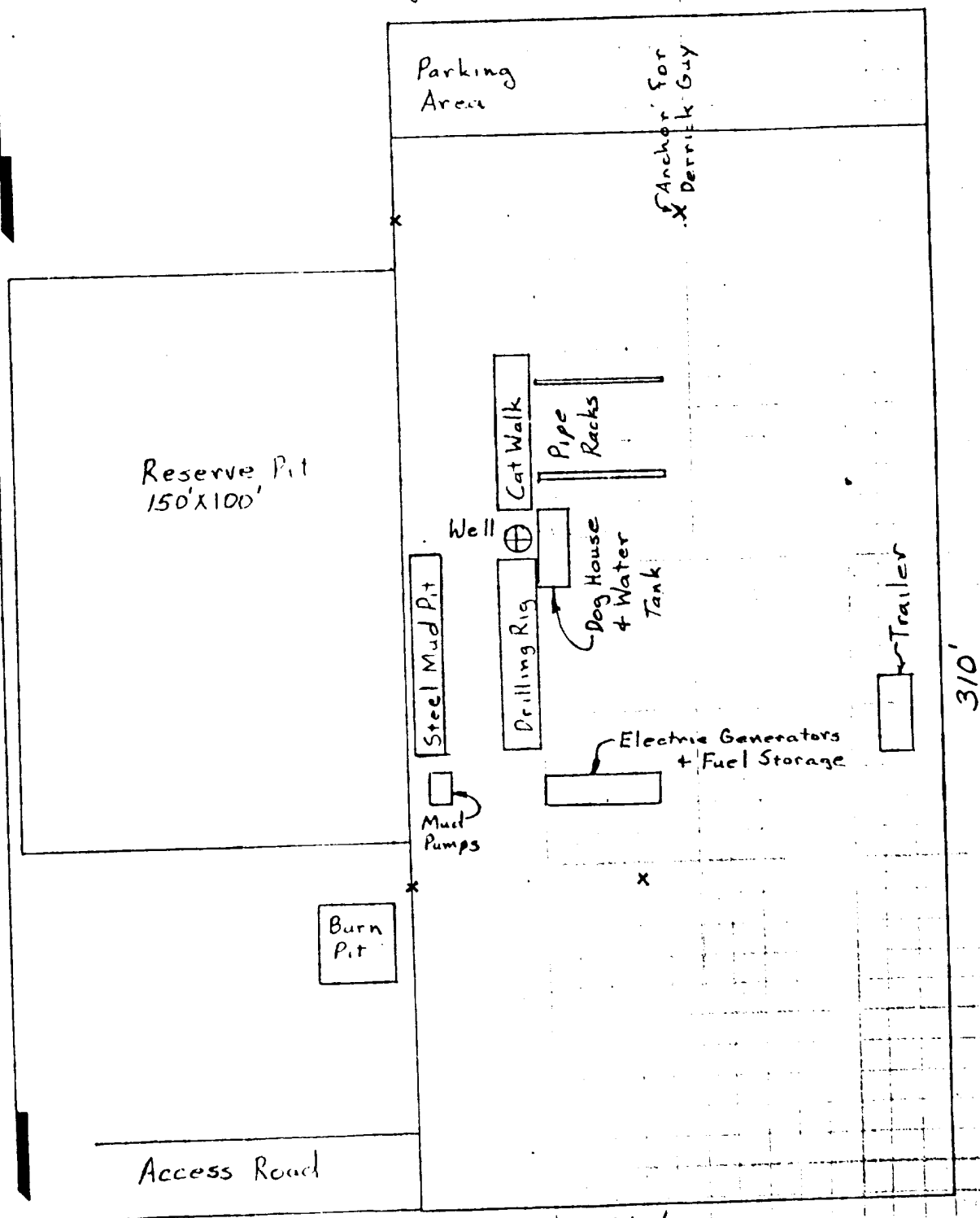
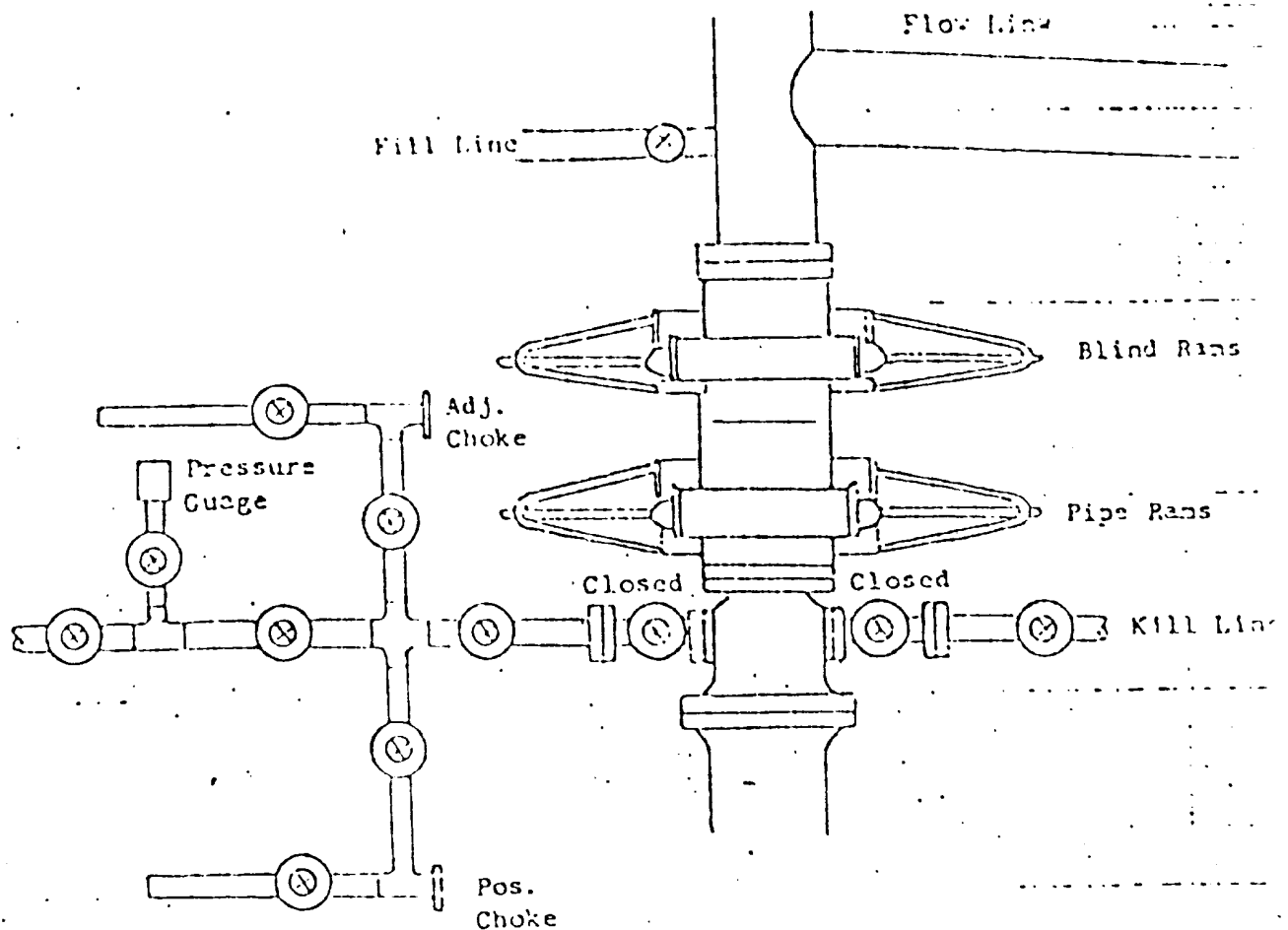


Exhibit 'C'

DATE \_\_\_\_\_ WELL NO. 622 LEASE Federal FIELD Lybrook Gallup

Drilling Well Site Layout





All valves 2"

All BCPs, flanges, spools, valves, & lines must be series 900 or 3000 psi working press.

Choke manifold must be at ground level and extended out from under substructure.

HICKS ENCO, INC.  
FARMINGTON, NEW MEXICO

REQUIRED MINIMUM BLOWOUT PREVENTOR

ROOKUP



Report 8Q-SJC-219  
Permit 8Q-NM-004  
79-NM-123 with  
Navajo Tribal Consent  
to Issuance #52

An Archaeological Clearance Survey of  
Two Proposed Well Locations & Access Roads  
Conducted for Dietrich Exploration Company, Inc.

Ruth Henderson  
Cultural Resource Management  
San Juan Campus  
New Mexico State University

29 July 1980

An Archaeological Clearance Survey of  
Two Proposed Well Locations & Access Roads  
Conducted for Dietrich Exploration Company, Inc.

On 8 July 1980, Ruth Henderson from the Cultural Resource Management Program, New Mexico State University, San Juan Campus, conducted an archaeological clearance survey of two proposed well locations and access roads for Dietrich Exploration Company, Inc. at the request of Mr. J. D. Hicks from Hicks, Enco, Inc.

Present during the survey were Mr. Hicks, Mr. Steve Shafran from the U.S. Geological Survey - Farmington office, and Mr. Davey Morris from the Bureau of Indian Affairs - Navajo Agency in Crownpoint.

The proposed well locations and access roads are on public land administered by the U.S. Bureau of Land Management and land administered by the Navajo Tribe, and were surveyed under Federal Antiquities permits 80-NM-004 and 79-NM-123 with Navajo Tribal Consent to Issuance #52.

#### METHODOLOGY

Each well location was surveyed by walking parallel transects, seventy-five feet apart, over the 300 by 300 foot easements. The access roads were surveyed by walking the flagged routes from the existing roads to the wells and back.

#### GENERAL RECOMMENDATIONS

No cultural resources were found during the course of the survey, therefore archaeological clearance is recommended for the inspected areas.

Proposed Well: DIETRICH EXPLORATION - FEDERAL 6 #22

Land Status: Bureau of Land Management.

Location: The proposed well location is in the NE $\frac{1}{4}$  of the SE $\frac{1}{4}$  of the NW $\frac{1}{4}$  of Section 6, Township 23 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico. The well will be 1860 feet from the north line and 2265 feet from the west line of Section 6. (Figure 2)

U.T.M.: Center - 13; 2,65,000 mE; 40,15,210 mN.

Access: 20 feet wide and 2000 feet long, approaching the location from the southeast.

Area Surveyed: 2.98 acres.

Terrain: Drainage bottom with northwesterly drainage, alluvial surface deposits, and sandstone outcrops.

Soil: Clayey loam.

Vegetation: Sagebrush, blue grama, prickly pear cactus.

Cultural Resources: None found.

Recommendations: Clearance recommended.

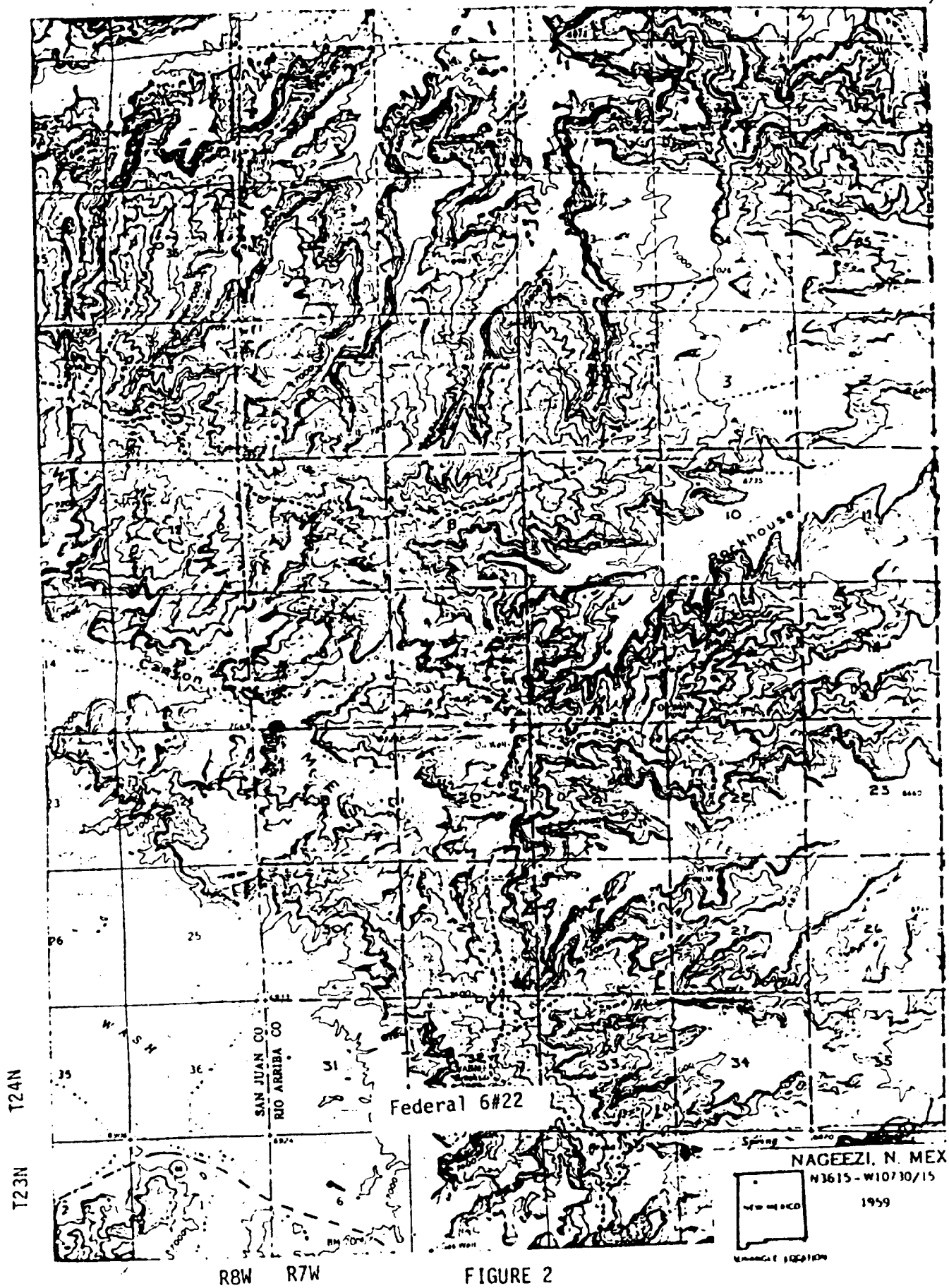


FIGURE 2