

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

30-039-21986

**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  
 CONTINENTAL OIL COMPANY

3. ADDRESS OF OPERATOR  
 P.O. Box 460 Hobbs, N.M. 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 2070' FNL & 1980' FWL  
 At proposed prod. zone  
 SAME

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

5. LEASE DESIGNATION AND SERIAL NO.  
 Contract No. 41

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 JICARILLA APACHE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
 JICARILLA - 30

9. WELL NO.  
 15

10. FIELD AND POOL, OR WILDCAT  
 LINDRETH GALLUP DAKOTA WEST

11. SEC., T., R., M., OR B.L.K. AND SURVEY OR AREA  
 Sec. 32 T. 25 N. R. 4 W

12. COUNTY OR PARISH 13. STATE  
 RIO ARRIBA N.M.

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

16. NO. OF ACRES IN LEASE  
 2560

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.

19. PROPOSED DEPTH  
 8000'

20. ROTARY OR CABLE TOOLS  
 ROTARY

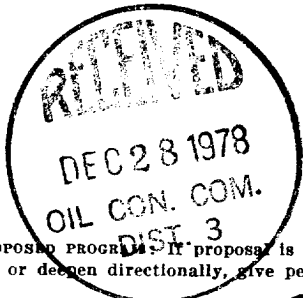
21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6835' GL

22. APPROX. DATE WORK WILL START\*  
 1-5-78

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#	1000'	550 sx
7 7/8"	5 1/2"	15.5# / 17#	6300' / 1280'	805 sx

It is proposed to drill a straight hole to a TD of 7580' and complete as a Gallup-Dakota oil well.  
 See attachment for 10 point well plan  
 See attached for 13 point surface use plan



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 HOBBS, N.M.

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 W.H. Butterfield TITLE Administrative Supervisor DATE 12-20-78

(This space for Federal or State office use)

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

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

CONDITIONS OF APPROVAL, IF ANY:  
 4565 6  
 BEA ok Frank  
 MJL  
 FILE  
 RELEASE FOLDER

\*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-167  
Supersedes O-128  
Effective 1-1-67

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

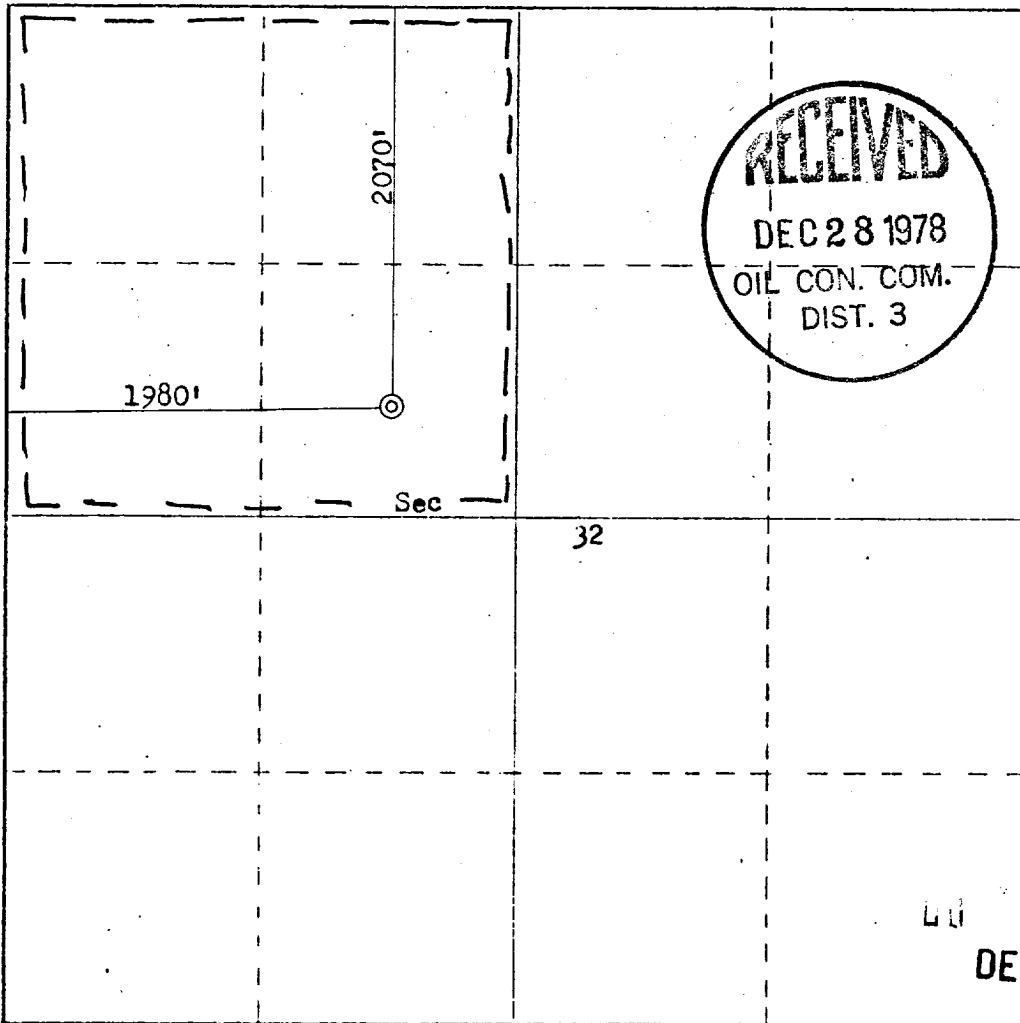
Operator <b>CONTINENTAL OIL COMPANY</b>			Lease <b>JICARILLA 30</b>		Well No. <b>15</b>
Unit Letter <b>F</b>	Section <b>32</b>	Township <b>25N</b>	Range <b>4W</b>	County <b>RIO ARriba</b>	
Actual Footage Location of Well: <b>2070</b> feet from the <b>North</b> line and <b>1980</b> feet from the <b>West</b> line					
Ground Level Elev. <b>6835</b>	Producing Formation <b>Gallup Dakota</b>		Pool <b>West Lindrith Gallup Dakota</b>		Dedicated Acreage <b>160</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.



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OIL CON. COM.  
DIST. 3

CERTIFICATION

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

Name  
*Wm A. Pennington*  
Position  
*Administrative Supervisor*  
Company  
*Continental Oil Co*  
Date  
*12/20/78*

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 Survey  
*12/20/78*  
By  
*Wm A. Pennington*  
Title  
*Administrative Supervisor*  
**DEC 27 1978**  
*Fred B. Kott, Jr.*  
S. GEOLOGICAL SURVEY  
D. 3950

ATTACHMENT TO FORM 9-331 C  
APPLICATION FOR PERMIT TO DRILL

Continental Oil Company  
Jicarilla 28 No. 17 and Jicarilla 30 Nos. 13, 14, and 15  
T-25N, R-4W  
Rio Arriba County, New Mexico

1. The geologic name of the surface formation is Quaternary Sand.
2. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan.
3. The estimated depths at which anticipated water, oil, gas or other mineral-bearing formations to be encountered are shown on attached Proposed Well Plan.
4. The proposed casing program is as follows:  
  
(See Proposed Well Plan Outlines)
5. A drawing of an API Series 900 Blowout Preventer Specification is attached. Pipe rams and blinds will be checked to 1,000 PSI for 30 minutes when BOP is installed. BOP will be checked when casing string is set and operated daily for checks.
6. The proposed mud program is as follows:  
  
(See Proposed Well Plan Outlines)
7. The auxiliary equipment to be used is:
  - (1) kelly cocks
  - (2) floats at the bit
8. It is proposed to run SP-IES log from TD to approximately (See Proposed Well Plan Outlines) and GR CAL CNL FDC PDC logs at selected intervals.
9. No abnormal pressure or temperatures are expected to be encountered in this well.
10. The anticipated starting date for the first well is November 15, 1978 with a duration date of approximately 21 days for each well.

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WELL NAME: 2070' PNL #15

COUNTY: Rio Arriba

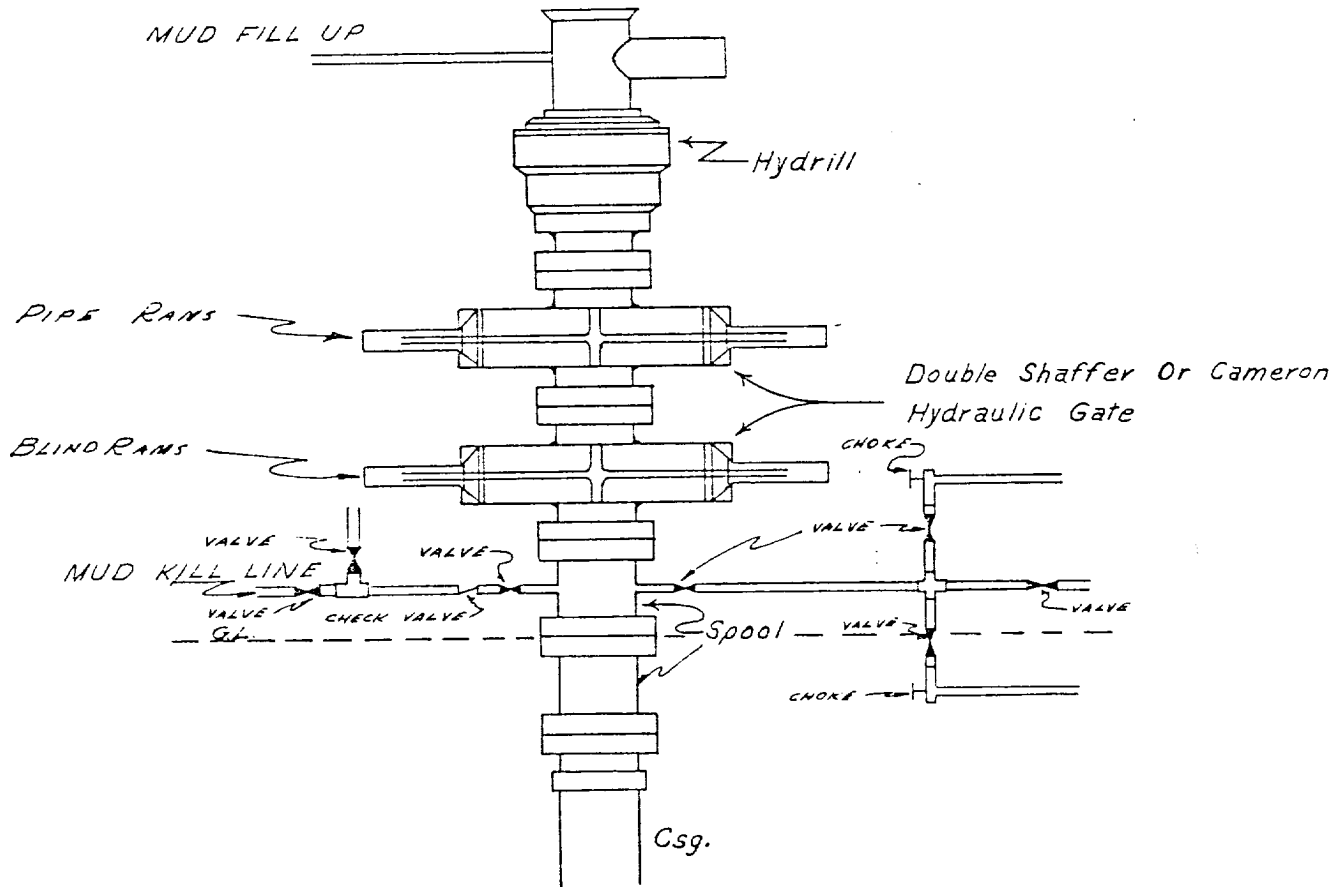
LOCATION: 2070' PNL #15 EWL  
Sec. 32, T25N, R4W

STATE: N.M.

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION:	HOLE SIZE (IN)	CASING		FRACTURE GRADIENT (PPG)	FORMATION PRESSURE GRADIENT (PPG)	MUD	
					SIZE (IN)	DEPTH (FT)			WEIGHT (PPG)	TYPE
	Quaternary		GEOLOGICAL D-TD DEFLECTION O-TO	12 1/4	8 5/8	1000	-	-	8.5 TO 9.0	SPUD
	Ojo Alamo ss.	2180								
	Kirtland sh.	2650								
	Pic. Cliffs ss.	3000								
	Chacra ss.	3250								
	Mesa Verde ss.	4640	LOST CIRCULATION ZONE							
	Mancos sh.	5360	SP-IES TD-2800' 2" x 5"							
	Gallup ss.	6310	GR-CAL-FDC Selected Intervals (TD-2800) 2" x 5"							
	Dakota ss.	7120								
	J ss.	7330								
	M ss.	7430								
	TD	7580	PDC TD-6200'	7 7/8	5 1/2	7580	13.0 TO 14.0	LESS THAN 8.5	8.5 TO 9.0	FRESH WATER GEL LOW SOLIDS

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CONTINENTAL OIL COMPANY  
Blow-out Preventer Specifications



API SERIES 900

NOTE:

Manual and Hydraulic controls with closing unit no less than 75' from well head.  
Remote controls on rig floor.

DUE TO SUBSTRUCTURE CLEARANCE,  
HYDRILL MAY OR MAY NOT BE USED.

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SURFACE USE PLAN  
Continental Oil Company  
Jicarilla 28 No. 17 and Jicarilla 30 Nos. 13, 14, and 15  
T-25N, R-4W  
Rio Arriba County, New Mexico

The plan is to accompany "Application for Permit to Drill" the subject well. The following is a discussion of pertinent information concerning possible effect which the proposed drilling of the well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so that all contractors and sub-contractors will be aware of all items of this plan.

1. Existing Roads

A. The proposed well sites are as follows:

Jicarilla 28 No. 17	1830' FWL and 450' FSL of Section 28
Jicarilla 30 No. 13	450' FSL and 990' FEL of Section 31
Jicarilla 30 No. 14	2310' FNL and 990' FEL of Section 31
Jicarilla 30 No. 15	2070' FNL and 1980' FWL of Section 32

B. Exhibit "A" is a portion of a Jicarilla 28 and Jicarilla 30 lease map showing existing roads and proposed new road and location.

C. Access Roads are shown on Exhibits "A" and "B".

2. Planned Access Roads

Refer to the attached archaeological report.

3. Location of Existing Wells

See Exhibit "A"

4. Location of Existing and/or Proposed Facilities

A. Tank Batteries: Two 400 bbl. tank and a production unit will be located on each well site.

B. Rehabilitation: Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from locations. Rehabilitation of the surface is planned to be completed within 45 days from commencement.

5. Water Supply

The supply of water will be hauled from Largo Wash. (See Exhibit "C")

6. Source of Construction Materials

Not applicable. Drilling pad to be compacted

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7. Methods for Handling Waste Disposal

Waste Disposal: Well cuttings will be disposed in reserve pit. Trash pit is shown on "Rig Layout", Exhibit "D". All detrimental waste will be buried with a minimum of 24" of dirt. See Exhibit "D" for location of pits.

8. Ancillary Facilities

None

9. Well Site Layout

Exhibit "D" shows the relative location and dimensions of the well pad, mud pit, reserve pit, trash barrel, etc.

10. Plans for Restoration of Surface

Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location. Surface will be leveled and properly conditioned as required by USGS after consulting with proper surface managing agency.

11. Other Information

- A. Terrain: "A" through "C" refer to the attached archaeological report.
- B. Soil: Sandy loam
- C. Vegetation: Primarily sage, blue grama, occasional pinyon and Juniper, and various flowering herbs.
- D. Surface Use: Suitable for grazing
- E. Ponds and Streams: None within one mile
- F. Water Wells: None within one mile
- G. Residences and Buildings: None within one mile
- H. Arroyos, Canyons, Etc.: See attached topographic map, Exhibit "B".
- I. Well Sign: Sign identifying and locating well will be maintained at drill site with the spudding of the well.
- J. Open Pits: All pits containing mud or other liquids will be fenced.
- K. Archaeological Resources: None observed.

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12. Operator's Representative

Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows:

PRODUCTION AND DRILLING

B. E. Anderson  
Petroleum Center Building  
Room 215  
501 Airport Drive  
Farmington, New Mexico  
Phone: (505) 327-9557

L. P. Thompson  
1001 North Turner  
Hobbs, New Mexico 88240  
Phone: (505) 393-4141

E. L. Oshlo  
1001 North Turner  
Hobbs, New Mexico 88240  
Phone: (505) 393-4141

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site 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 Continental Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

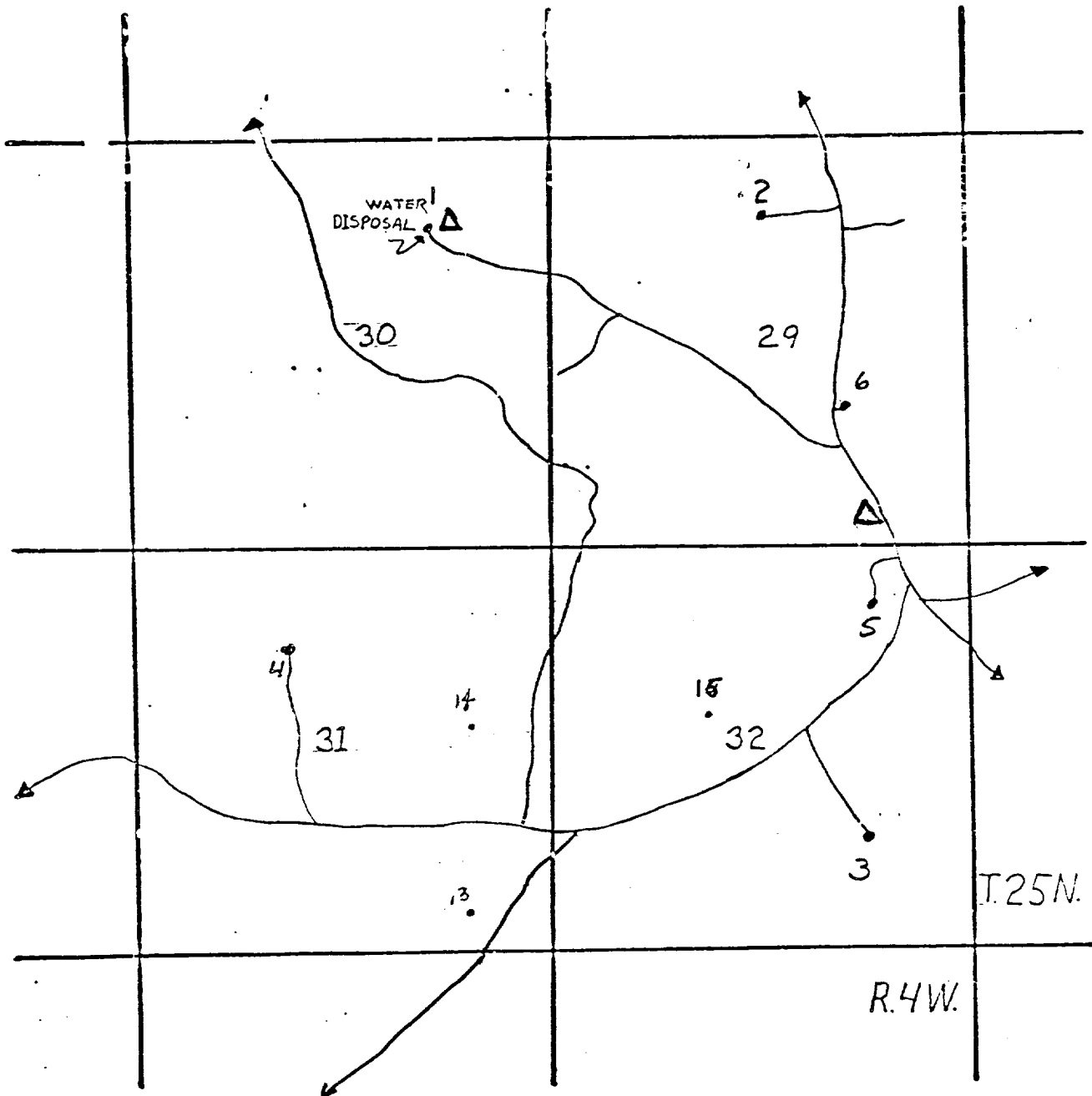
12-20-78  
Date

*L. P. Thompson*

bnp

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**CONOCO**

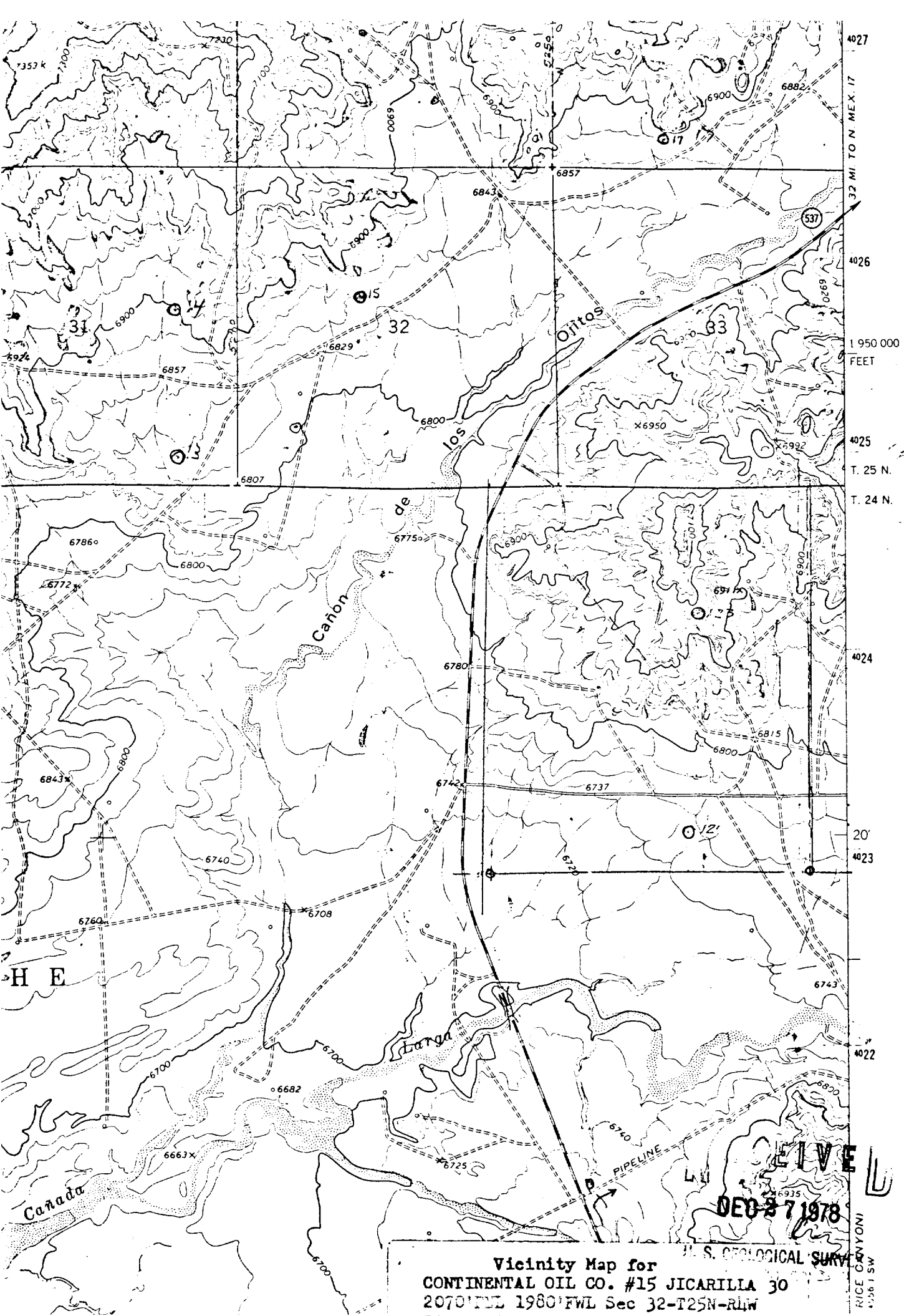
PRODUCTION DEPT. HOBBS DIV.  
 JICARILLA "30" LEASE

LEGEND

- CONOCO WELL
- △ TANK BATTERY
- LEASE ROAD
- HWY.

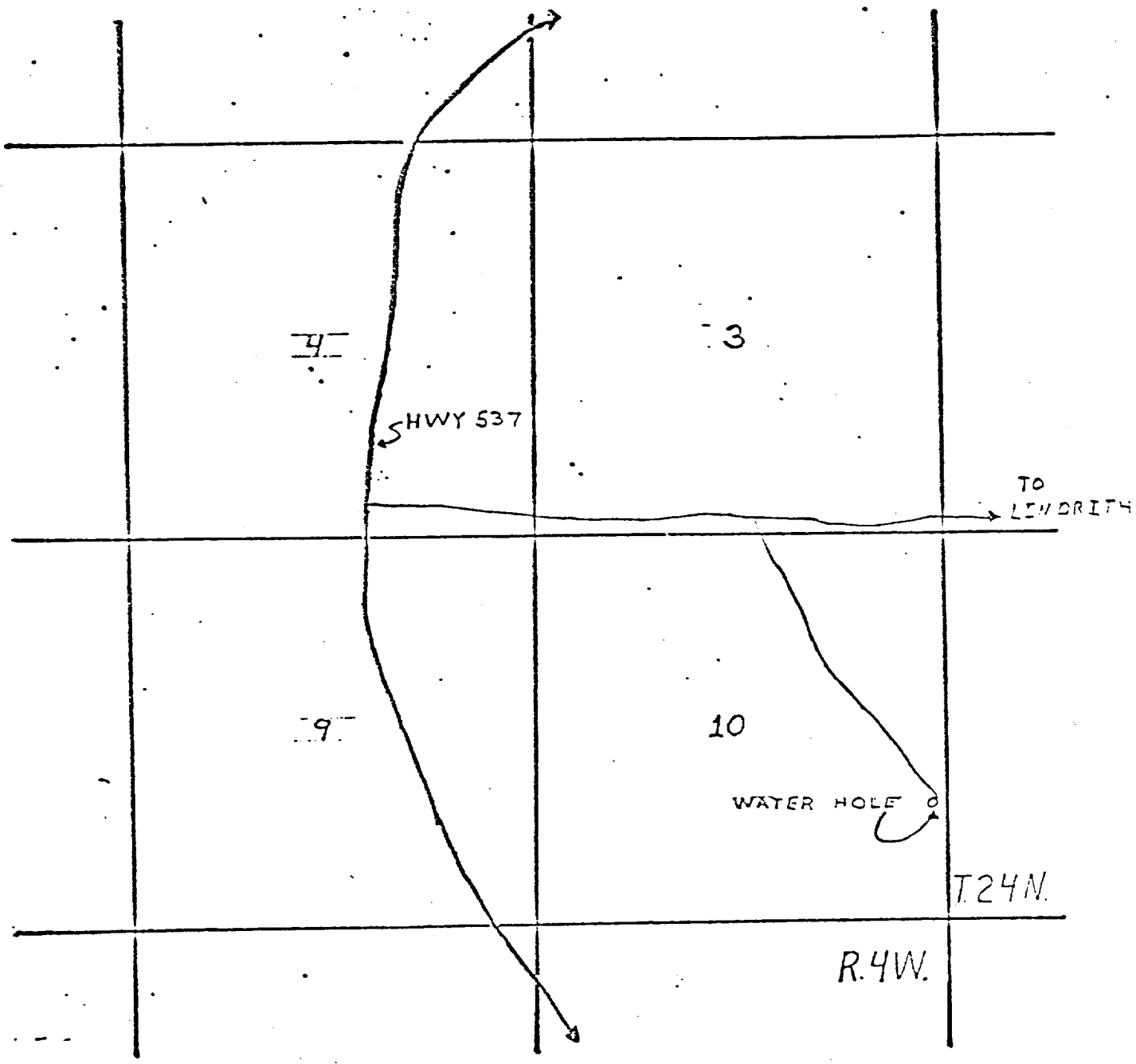
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NTS  
CHAVEZ



Vicinity Map for  
 CONTINENTAL OIL CO. #15 JICARILLA 30  
 2070' ECL 1980' FWL Sec 32-T25N-R14W

U. S. GEOLOGICAL SURVEY  
 RICE CANYON  
 4361 SW

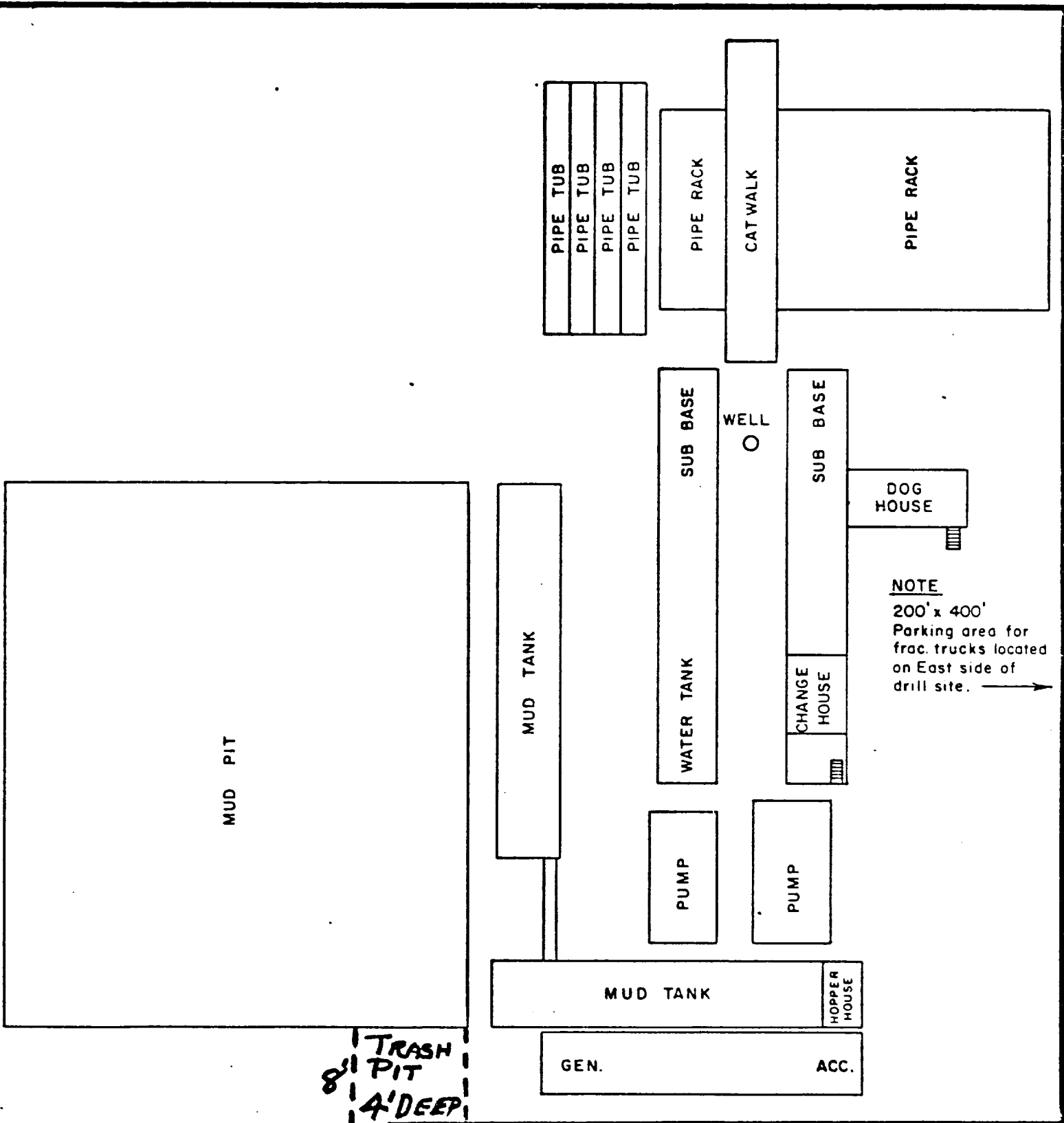


CONOCO  
 PRODUCTION DEPT. HOBBS DIV.  
 LARGO WATER HOLE

LEGEND

- CONOCO WELL
- △ TANK BATTERY
- LEASE ROAD
- HWY.

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 EXHIBIT "C"  
 U.S. GEOLOGICAL SURVEY  
 NTS  
 CHAVEZ



**NOTE**  
 200' x 400'  
 Parking area for  
 frac. trucks located  
 on East side of  
 drill site. →

TRASH  
 PIT  
 8' x 4' DEEP

APPROX. RIG SITE DIMENSIONS  
 160' x 200'

**CONTINENTAL OIL COMPANY**  
 PRODUCTION DEPARTMENT

DEC 27 1978

U.S. GEOLOGICAL SURVEY  
 RIG LAYOUT  
**EXHIBIT "C"**

Archaeological Clearance Survey Report  
for  
Continental Oil Company

Well Locations

- ~~JICAR~~ Jicarilla 30-13
- ~~FEB~~ Jicarilla 30-14
- ~~JICAR~~ Jicarilla 30-15
- ~~NOV~~ Jicarilla 28-17
- ~~AXI~~ AXI Apache N-19
- ~~AXI~~ AXI Apache N-18
- ~~AXI~~ AXI Apache N-16
- ~~AXI~~ AXI Apache N-17
- ~~AXI~~ AXI Apache J-33

Prepared by  
John B. Schooley

Submitted by  
Meade F. Kemrer, PhD.  
Principal Investigator

DIVISION OF CONSERVATION ARCHAEOLOGY

Contributions to Anthropology Series, No. 84  
San Juan County Archaeological Research Center and

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August 23, 1978

Abstract

An archaeological clearance survey was performed on August 22, 1978 for Continental Oil Company by the Division of Conservation Archaeology of the San Juan County Archaeological Research Center and Library. The survey involved nine well pads and associated access roads on lands under the jurisdiction of the Jicarilla Apache Tribe.

Since the cultural resources found are not to be directly or indirectly impacted by the proposed construction, archaeological clearance has been recommended for all areas.

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## Introduction

The Division of Conservation Archaeology of the San Juan County Archaeological Research Center and Library has completed an archaeological clearance survey for Continental Oil Company, on lands under the jurisdiction of the Jicarilla Apache Tribe. The lands are to be impacted by the construction of nine well pads and associated access roads.

The survey was initiated at the request of Mr. Joe McKinney of Achinson Construction Company, Incorporated, on August 18, 1978. It was administered by Mr. B.E. Anderson of Continental Oil Company and by Dr. Meade Kemrer of the Division of Conservation Archaeology.

Legislation enacted by the Congress of the United States requires compliance with laws designed to protect archaeological resources. Laws such as the National Environmental Policy Act of 1969 (PL 91-852) and Executive Order No. 11593 entitled "Protection and Enhancement of the Cultural Environment" prevent enterprises which might result in the destruction or alteration of cultural resources. Federal and State governments and the professional scientific community have come to realize that the material remains of a prior culture are a limited, non-renewable part of the environment. As such, the State of New Mexico has enacted legislation regulating archaeological resources. The Cultural Properties Act is analogous in content to the National Historic Preservation Act of 1966 (PL 89-665), which provides for preservation of significant archaeological sites.

The field work was performed by John Schooley, assistant archaeologist, of the Division of Conservation Archaeology on August 22, 1978, under the provisions of a Jicarilla Tribal Council Resolution passed on February 2, 1978. Also present in the field were: Mr. Joe McKinney of Achinson Construction; Mr. B.E. Anderson of Continental Oil Company; and Mr. Fred Kerr and Rich Weaver of Kerr Land Surveying.

## Field Procedures

The requested archaeological clearance survey of the proposed well pads and access roads was inspected on foot and the area was covered in a criss-cross fashion. In addition to the search for historic /prehistoric artifacts and features, information pertaining to the environmental setting was described.

## Survey

The requested archaeological survey involved nine well pads and associated access roads on lands under the jurisdiction of the Jicarilla Apache Tribe. For specific details of location, please see the attached topographic maps and the paragraph descriptions below.

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Recommendations: Archaeological clearance is recommended.

Jicarilla 30-#15

Legal Description: 2070' F/NL, 1980' F/WL, Section 32, T 25N, R 4W, N.M.P.M., Rio Arriba County, New Mexico.

Map Source: U.S.G.S. 7.5' Otero Store Quadrangle.

Area Surveyed: 300'x 200' (well pad), 800'x 20' (access road).

Land Jurisdiction: Jicarilla Apache Tribe.

Description: The proposed well pad is located on an alluvial fan abutting a sandstone escarpment immediately north of the proposed well location. The soil is a sandy loam, approximately 50% exposed. There are numerous small erosional gullies draining south. The vegetation is sagebrush, blue grama, and various flowering herbs. Grazing is in evidence. The access road proceeds north from an existing road approximately 800 feet.

Cultural materials: On the sandstone face of the escarpment 200 feet north of the well pad location, there are numerous historic petroglyphs of names, places, and dates, eg. "Slavio Lucero, Del Gobernador, New Mexico, March 19, 1927." The names are both Hispanic and Anglo. The dates range from 1907 to the present.

Recommendations: Since the petroglyphs will not be affected by the proposed construction, archaeological clearance is recommended.

~~Jicarilla 28-#17~~

~~Legal Description: 1830' F/WL, 450' F/SL, Section 28, T 24N, R 4W, N.M.P.M., Rio Arriba County, New Mexico.~~

~~Map Source: U.S.G.S. 7.5' Otero Store Quadrangle.~~

~~Area Surveyed: 300'x 200' (well pad), 800'x 20' (access road).~~

~~Land Jurisdiction: Jicarilla Apache Tribe.~~

~~Description: The proposed well pad is located on an alluvial fan with a 10° slope to the south. A sandstone escarpment with eroding clay shale hills lies immediately north of the location. The soil is a sandy loam, approximately 50% exposed. The vegetation is primarily sage, blue grama, occasional pinyon (Pinus edulis) and juniper (Juniperus spp.), and various flowering herbs. There is evidence of grazing.~~

~~Cultural Resources: One small chalcedony waste flake was noted. Upon an extensive search of the area no further cultural artifacts were found.~~

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**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 Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
**CONTINENTAL OIL COMPANY**

3. ADDRESS OF OPERATOR  
**P. O. Box 460, Hobbs, N.M. 88240**

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: **2070' FNL + 1980' FWL**  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>	<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>	<input type="checkbox"/>
(other)	<input type="checkbox"/>	<input type="checkbox"/>

5. LEASE  
**CONTRACT NO. 41**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
**JICARILLA APACHS**

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
**JICARILLA 30**

9. WELL NO.  
**15**

10. FIELD OR WILDCAT NAME  
**W. LINDRITH HALLUP DAKOTA**

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
**SEC. 32 T25N R4W**

12. COUNTY OR PARISH  
**RIO ARriba**

13. STATE  
**N.M.**

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
**6835' GR**

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)\*

*It is proposed to change the casing program on Application to Drill subject well from 1000', 8 5/8", 24" to 500', 8 5/8", 24"*

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED *Wm A. Butterfield* TITLE *Senior Supv* DATE *1-10-79*

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:  
**USGS DURANGO 5  
BEA  
MSL  
FILE**

\*See Instructions on Reverse Side

