

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
Conoco Inc.

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 1670' FSL & 910' FEL
At proposed prod. zone Same

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

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

17. NO. OF ACRES ASSIGNED TO THIS WELL

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH
8150'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
7304' GR

22. APPROX. DATE WORK WILL START*
Aug. 20, 1980

5. LEASE DESIGNATION AND SERIAL NO.
Contract No. 64

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Jicarilla Apache

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Jicarilla - 20

9. WELL NO.
7

10. FIELD AND POOL, OR WILDCAT
W. Lindreth Gallup Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 19, T-25N, R-4W

12. COUNTY OR PARISH
RIO ARriba

13. STATE
N.M.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<u>12 1/4"</u>	<u>8 5/8"</u>	<u>24#</u>	<u>550'</u>	<u>290 SK.</u>
<u>7 7/8"</u>	<u>5 1/2"</u>	<u>17#, 15.5#</u>	<u>8150'</u>	<u>840 SK.</u>

It is proposed to drill a straight hole to a TD of 8,150' and complete as a W. Lindreth Gallup Dakota oil well.

See attachments for 10-point well plan and 13-point Surface Use Plan.

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U.S. GEOLOGICAL SURVEY
DURANGO, COLO.

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

Wm A. ButterfieldTITLE Administrative SupervisorDATE 11/30/79

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

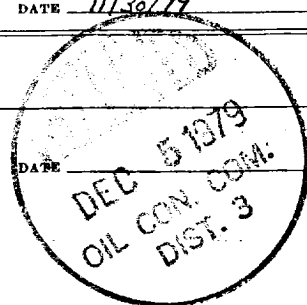
APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

USGS (Durango) - 6BEAEl PasoMJL

*See Instructions On Reverse Side



**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.

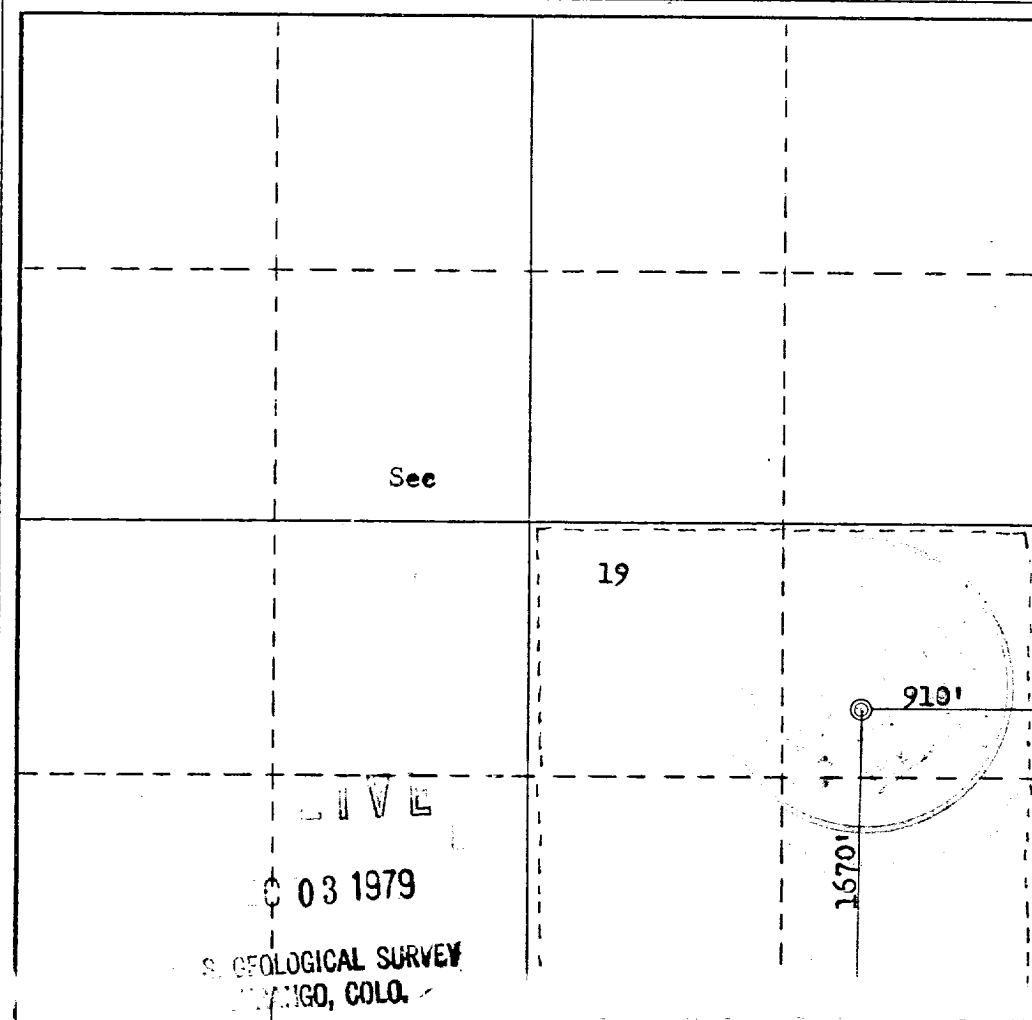
Operator CONTINENTAL OIL COMPANY			Lease JICARILLA 20		Well No. 7
Unit Letter I	Section 19	Township 25N	Range 4W	County Rio Arriba	
Actual Footage Location of Well: 1670 feet from the South line and 910 feet from the East line					
Ground Level Elev. 7304	Producing Formation Gallup Dakota		Pool West Lindrith Gallup Dakota		Dedicated Acreage: 160 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

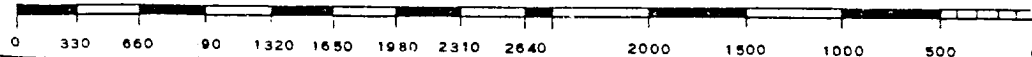
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name Wm. A. Butterfield
 Position Administrative Supervisor
 Company CONTINENTAL OIL Co.
 Date MAY 10, 1979

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 October 18, 1978
 Registered Professional Engineer and/or Land Surveyor: [Signature]

Certificate No. 3950



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

Continental Oil Company

Jicarilla 20 Nos. 7 and 8
Jicarilla 30 No. 16

1. The geologic name of the surface formation is Cretaceous.
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:

0-550'	8 5/8", 24#, K-55, ST&C
0-6300'	5 1/2", 15.5#, K-55, ST&C
6300-8150'	5 1/2", 17.0#, K-55, ST&C
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:

0-550'	8.5-9.5 ppg spud mud
550'-6800'	8.8-9.3 ppg fresh water gel (low solids)
6800'-TD	8.8-9.4 ppg fresh water gel (low solids)
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 3300' and GR CAL FDC PDC logs at selected intervals.
9. No abnormal pressures or temperatures are expected to be encountered in this well.
10. The anticipated starting date for the first well is August 20, 1980 with a duration of approximately 21 days for each well.

PEB:cab

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U.S. GEOLOGICAL SURVEY
DURANGO, COLO.

WELL NAME: Jicarilla 20 No. 7COUNTY: Rio ArribaLOCATION: 1670' FSL & 910' FEL
Sec. 19, T25N, R4WSTATE: New MexicoGL: 7304 (Surveyor)

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
	Surface Rock		Geograph 0-TD Deflection 0-TD	12 1/4	5 1/2	550			8.5 To 9.5	Spud
1000		Possible Lost Circulation								
2000										
3000	Ojo Alamo SS.	2630								
3190	Kirtland Sh.								8.8 To 9.3	Fresh Water Gel
4000	Pic. Cliffs SS. 3540									
4430	Chacra SS.									
5000	Mesa Verde SS	5200								
6000		Mud Seepage	SP-IES TD-3300' 2" & 5"							
6800	Gallup SS.	6900 Lost Circulation	GR-CAL-FDC Selected Intervals (TD-3300') 2" & 5"			6800			8.8 To 9.4	Fresh Water Gel
7760	Dakota "D" SS.		PDC	7 7/8	5 1/2				8.8 To 9.4	Fresh Water Gel
7910	Dakota "J" SS.		TD-6800'							
8000	Dakota "M" SS.	8000								
TD - 8150										

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GEOLOGICAL SURVEY
DENVER, COLO.

WELL NAME Jicarilla No. FIELD West Lindrith DATE 5/2/79
 AFE NO. ELEV. GRD 7304 KB PROPOSED TO
 LOCATION (SURF.) & OF SEC T 25N R 4W
 COUNTY Rio Arriba STATE New Mexico SPACING 320 Acres
 LOCATION (BOTTOM HOLE) Same as surface location

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>THICKNESS</u>	<u>CONTENT</u>	<u>ZONE</u>	<u>TOP</u>	<u>THICKNESS</u>	<u>CONT</u>
Ojo Alamo (SS)	2630'		Water				
Kirtland (Sh)	3190'						
Pictured Cliffs (SS)	3540'		Gas				
Chacra (SS)	4430'		Gas				
Mesa Verde (SS)	5200'		Oil & Gas				
Gallup (SS)	6900'		Oil & Gas				
Dakota "D" (SS)	7760'		Oil & Gas				
Dakota "J" (SS)	7910'		Oil & Gas				
Dakota "M" (SS)	8000'		Gas				
TD	8150'						

<u>CORING NO.</u>	<u>TYPE</u>	<u>HORIZON</u>	<u>INTERVAL FROM-TO</u>	<u>FOOTAGE</u>	<u>REMARKS</u>
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None

DRILL STEM TESTSWATER SHUT OFF TESTS

<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>
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None

WELL SURVEYS (List types by code numbers as follows: Directional and/or Deviation (1) Deflection (2) Caliper (3) Temperature (4) Electrical (5) Radioactive (6) Geolograph (7) Photoclinometer (8) Mudlogging (9) Other (10) and name of that type.)

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0-TD	(2) Deflection	12 1/4", 7 7/8"	1 every 500'
TD-3300'	(5) SP-IES	7 7/8"	2" & 5"
TD-6700', 5800'-5000', 4600'-4200', 3800'-3300'	(6) GR-CAL-FDC	7 7/8"	2" & 5"
TD-6700'	(6) PDC	Inside Casing	GR-CCL Log
0-TD	(7) Geolograph		Depth Control

FUEL AND WATER (SOURCE)

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GEOLOGICAL SURVEY
DENVER, COLO.

PROPOSED WELL PLANWELL NAME Jicarilla No. FIELD West Lindrith

<u>ATTACHMENT</u>	<u>NO.</u>	<u>REQUIRED</u>	<u>NOT REQUIRED</u>
CASING CENTRALIZERS, SCRATCHERS	<u> </u>	<u>X</u>	<u> </u>
CEMENTING	<u> </u>	<u>X</u>	<u> </u>
MUD PROGRAM	<u> </u>	<u>X</u>	<u> </u>
WELL PLAN OUTLINE	<u> </u>	<u>X</u>	<u> </u>
PORE PRESSURE - FRAC GRADIENT	<u> </u>	<u> </u>	<u> </u>
PROJECTED PROGRESS	<u> </u>	<u> </u>	<u> </u>
CROSS SECTION OR WELL COURSE	<u> </u>	<u> </u>	<u> </u>
HYDRAULICS PROGRAM	<u> </u>	<u> </u>	<u> </u>
BIT PROGRAM	<u> </u>	<u> </u>	<u> </u>
VENDER USAGE LIST	<u> </u>	<u> </u>	<u> </u>

DRILLING AND COMPLETION PROCEDURE

- 1) 0-550' Drill 12 1/4" hole. Set and cement 8 5/8", 24# surface casing. Pressure test and drill out after 18 hours.
- 2) 550'-8150' Drill 7 7/8" hole. Pressure test to 250 PSI after drilling out shoe. Condition mud and run OH logs. Set and cement 5 1/2" OD production casing.
- 3) Detailed completion procedure to be prepared from OH log analysis.

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U. S. GEOLOGICAL SURVEY
DENVER, COLO.

CASING, CENTRALIZERS & SCRATCHERS

LIST TYPE OF STRING BY CODE LETTERS, i.e. CONDUCTOR (C); SURFACE (S); INTERMEDIATE (I); PRODUCTION (P); LINER (L); PERFORATIONS (PP)

TYPE OF STRINGS & INTERVAL (FT)	DRIPT		WT PER FT	GRADE	THREAD	AMT	WT. IN AIR, WT. IN MUD		REMARKS
	OD	ID					1000 LBS	1000 LBS	
FROM-TO									
(S) 0-550'	8 5/8"	7.972"	24#	K-55	STC	550'			
(P) 0-6300'	5 1/2"	4.825"	15.5#	K-55	STC	6300'			
6300'-8150'	5 1/2"	4.767"	17.0#	K-55	STC	1850'			Sand blast bottom 1350'

TYPE OF STRING	CENTRALIZERS		SCRATCHER	OTHER ACCESSORY EQUIPMENT		REMARKS
	NO. FROM-TO	INTERVAL	NO. INTERVAL	(SUCH AS DEGASSERS, MUD. CENTRIFUGE FLOAT COLLARS, ETC. - SPECIFY)		
(S) Surface	(4) 2 each on bottom 2 joints			Guide shoe		
(P) Production*	(4) 1 every other joint from 7100'- 6800'			Guide shoe, float collar Two cement baskets above and one below DV tool @ + 5500'		
	(6) 1 every other joint from 8150'- 7650'					

*Final number and placement of centralizers to be determined from OH caliper log.

MUD PROGRAM

DEPTH INTERVAL FROM-TO	WEIGHT LBS/CAL	TYPE	OIL %	PH	WATER LOSS (cc)	VIS. (sec.)	MAXIMUM % SOLIDS		WATER LOSS AGENTS
							XXXXXX	XXXXXX	
0-550'	8.5-9.5	Spud	--	--	--	--	--	--	--
550'-3500'	8.8-9.3	Fresh Water Gel (Low Solids)	--	As Required	10-12	30-32	1-3		Cypan or Equivalen
3500'-6800'	8.8-9.3	"	--	As Required	9-10	30-32	1-3	5% If Required	Cypan
6800'-7650'	8.8-9.4	"	--	As Required	9-10	30-32	5	15-20% When drilling into the Gallup. Maintain 5% while drilling ahead.	Cypan
7650'-TD	8.8-9.4	"	--	As Required	6	32-36	5	2-5%	Cypan
TD - Logging	8.8-9.4	"	--	As Required	6	38-40	5	2-5%	Cypan
TD - Cementing	8.8-9.4	"	--	As Required	8-10	30-32	--	--	Cypan

REMARKS

- 1) Pressure surges should be kept to a minimum below 6800'.
- 2) Pressure loss across bit should be kept at 65% of pump output pressure to obtain maximum bit hydraulic efficiency.
- 3) Add fiber if lost circulation occurs.
- 4) Maintain water hardness at approximately 150-180 PPM when using cypan. Do not treat out total hardness.
- 5) Add water while drilling to maintain mud weight at approximately 9.2-9.3 PPG. Shake out solids to control mud weight above the Gallup.
- 6) Control PH as required to obtain water loss control.
- 7) Condition mud to reduce viscosity prior to cementing.

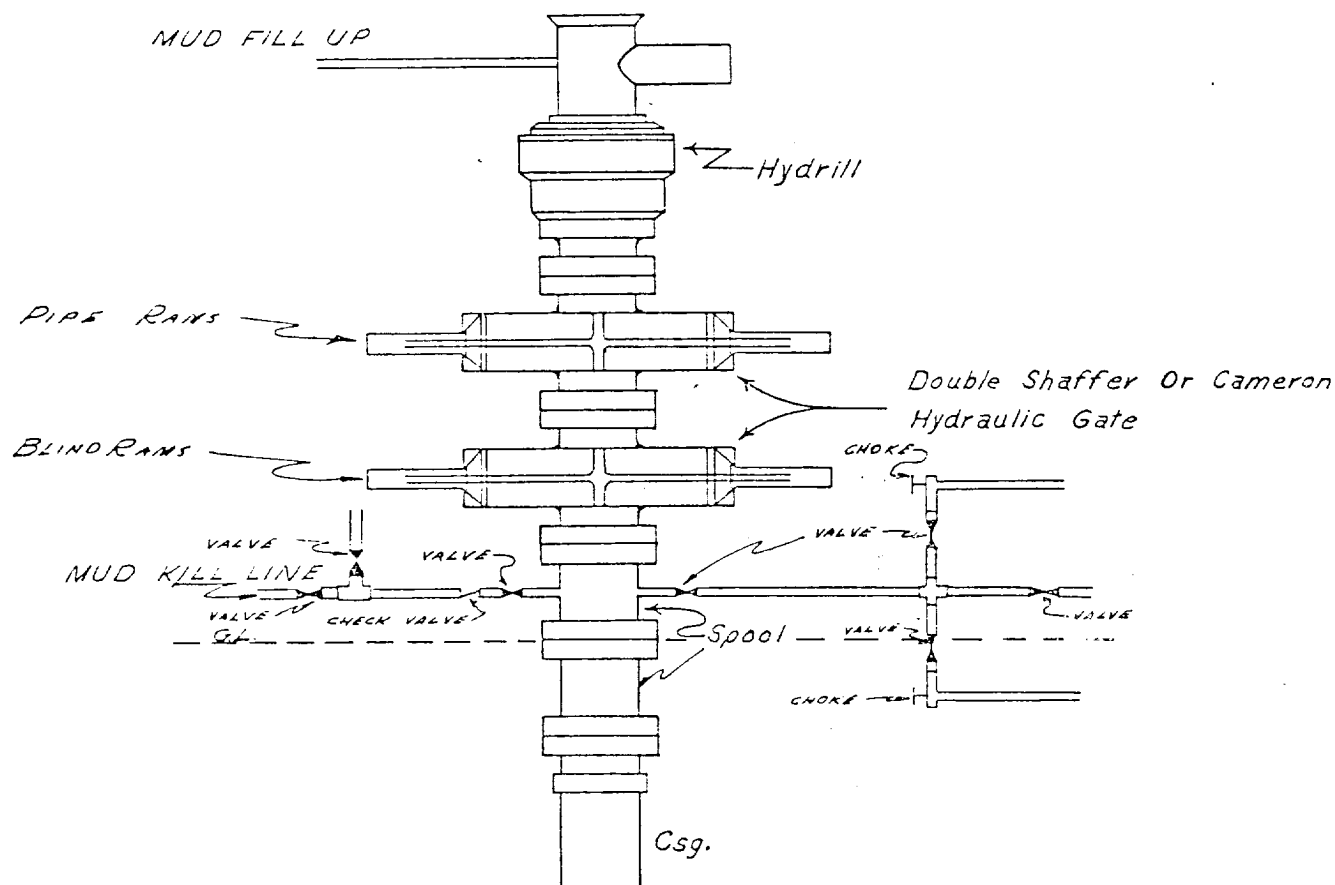
CEMENT

TYPE OF STRING INTERVAL (FT) FROM TO TYPE MIX	GEL%	SALT%	CaCl ₂	SLURRY WEIGHT LB./GAL.	SLURRY YIELD OF/SKX	TOTAL AMT. REQUIRED SKX/CF	FILL UP	BHT	SIZE	REMARKS
(S) 0-500' Class "B"	4%	--	2%	14.1	1.55	290/450	Circ.	160°F	12 1/4	100% Excess Add 1/4#/sk flocele if lost circ. occurs
(P) 0-8150'										
<u>Around Shoe</u>										
<u>Lite-Wate (Lead)</u>	--	--	2%	13.1	1.69	200/338	To 5500'	160°F	7 7/8	50% Excess Add 1/4#/sk
Class "B" (Tail-In)	--	--	2%	15.6	1.18	300/354	--	160°F	7 7/8	flocele to Class "B" cement and 1/2#/sk to lite cement if lost circ. occurs
Through DV Tool @ 5500'										
<u>Lite-Wate</u>	--	--	2%	13.1	1.69	340/579	To 3400'	155°F	7 7/8	Same as above

REMARKS

- (1) Lab test slurry for production casing.
- (2) Add 0.75% CFR-2 friction reducer to all cement.
- (3) Pump plug down with treated fresh water.
- (4) Precede cement with 15 bbls. fresh water flush.
- (5) Reciprocate casing while cementing.
- (6) Recalculate cement volumes from OH caliper log.
- (7) Place one cement basket below and two cement baskets above DV tool.
- (8) Condition mud to have 30-32 viscosity prior to cementing.

CONTINENTAL OIL COMPANY
Blow-out Preventer Specifications



NOTE:

API SERIES 900

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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U. S. GEOLOGICAL SURVEY
DENVER, COLO.

SURFACE USE PLAN
Continental Oil Company
Jicarilla 20 Nos. 7 and 8
Jicarilla 22 No. 10
Jicarilla 30 No. 16
T-25N, R-4W
Rio Arriba County, New Mexico

The plan is to accompany "Application for Permit to Drill" the subject wells. The following is a discussion of pertinent information concerning possible effect which the proposed drilling of the wells 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 20 No. 7 - 1670' FSL and 910' FEL, Section 19
- Jicarilla 20 No. 8 - 770' FNL and 760' FWL, Section 19
- Jicarilla 22 No. 10 - 820' FNL and 610' FWL, Section 21
- Jicarilla 30 No. 16 - 660' FSL and 1980' FWL, Section 29

B. Exhibit "A" is a portion of a Jicarilla area Lease map showing existing roads and proposed new road and location. A portion of a New Mexico road map is also included for further clarification.

C. The 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 "B".

4. Location of Existing and/or Proposed Facilities

- A. Tank Batteries: Two 400 Bbl. tanks 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 location and 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"), SE/4, Section 10, T-24N, R-4W, Rio Arriba County, New Mexico.

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DENVER, COLO.

6. Source of Construction Materials

Not applicable. Drilling pad to be compacted.

7. Methods for Handling Waste Disposal

Waste Disposal: Well cuttings will be disposed in reserve pit. Barrel trash containers to be in accessible location within drill site area during drilling and completion procedures. All detrimental waste will be hauled away, burned or buried with a minimum cover of 24" of dirt. See Exhibit "D" for location of pits. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically.

8. Ancillary Facilities

None

9. Well Site Layout

Exhibit "D" shows the relative location and dimensions of the well pad, mud pit, reserve pit, 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 and rehabilitation of the surface is planned to be completed within 45 days from commencement. 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:

C. Vegetation:

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".

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U.S. GEOLOGICAL SURVEY
SANTO, COLO.

- 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.

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

J. R. Kemp
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.

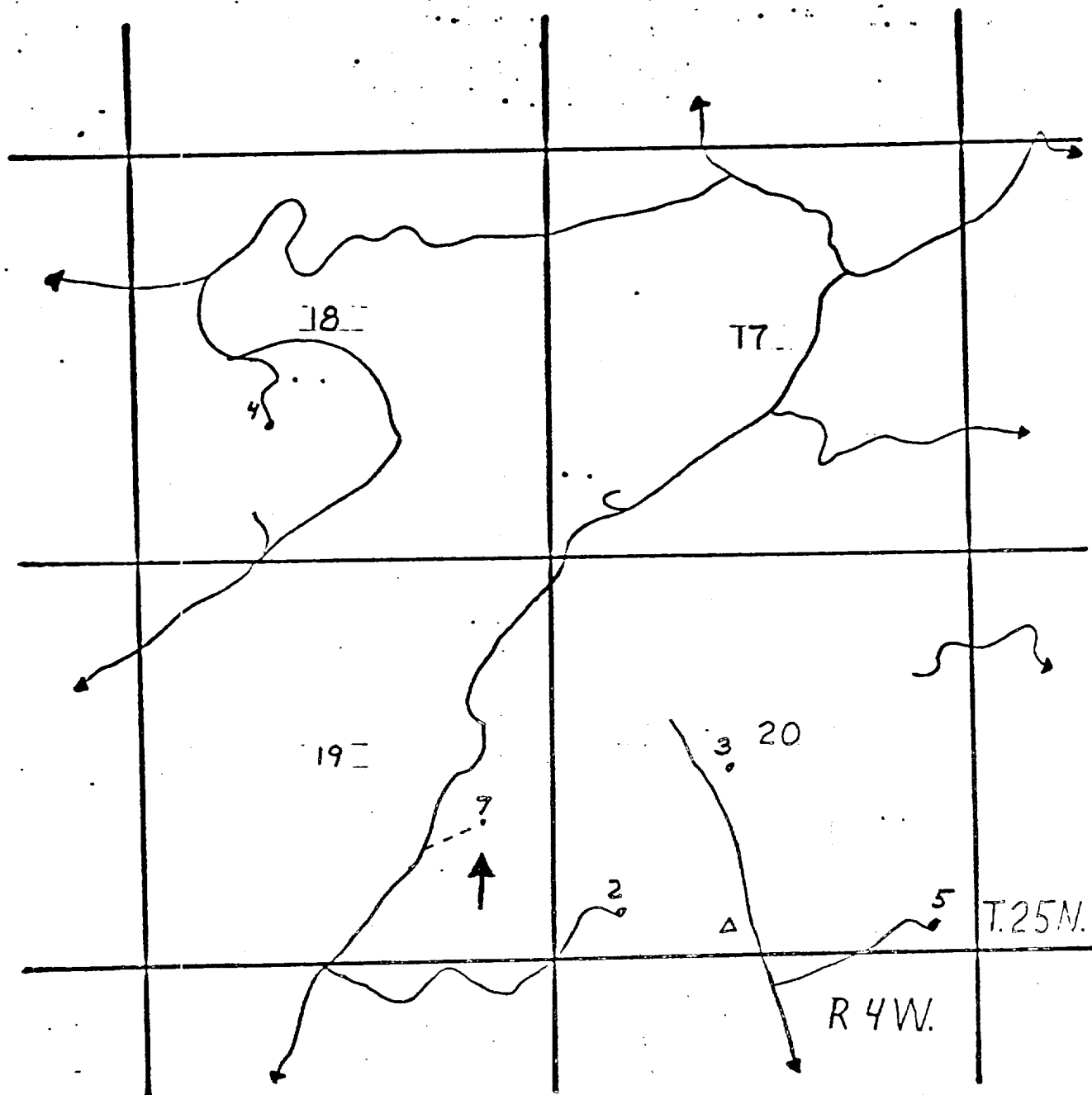
4-20-79


Date

PEB:skr


Assistant Division Manager

FILE
APR 03 1979
U.S. GEOLOGICAL SURVEY
DENVER, COLO.





PRODUCTION DEPT. HOBBS DIV.
 JICARILLA "20" LEASE

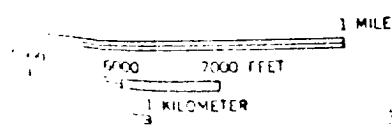
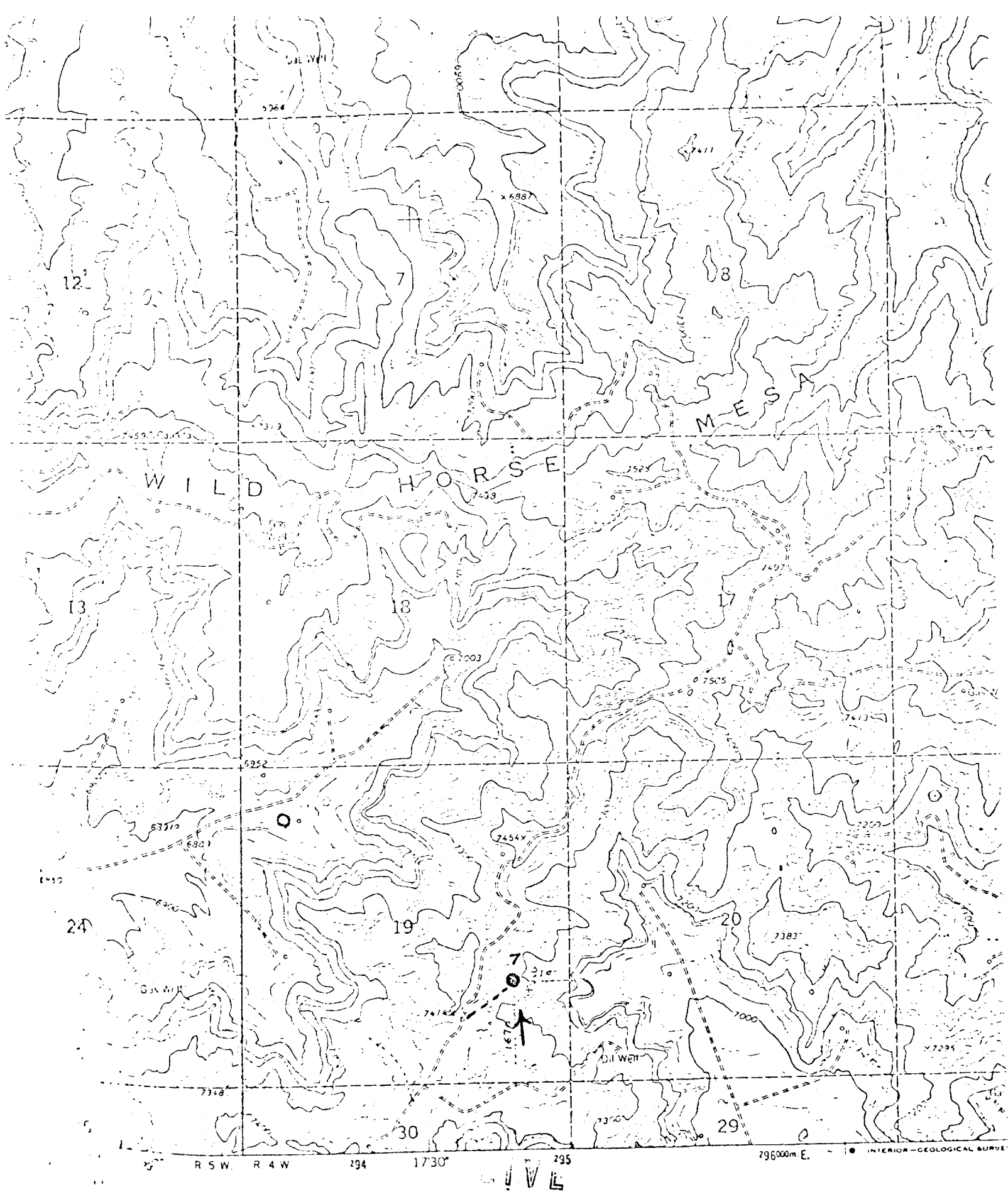
LIVE

LEGEND

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

EC 03 1979
 GEOLOGICAL SURVEY
 DENVER, COLO.

NTS
 CHAVEZ



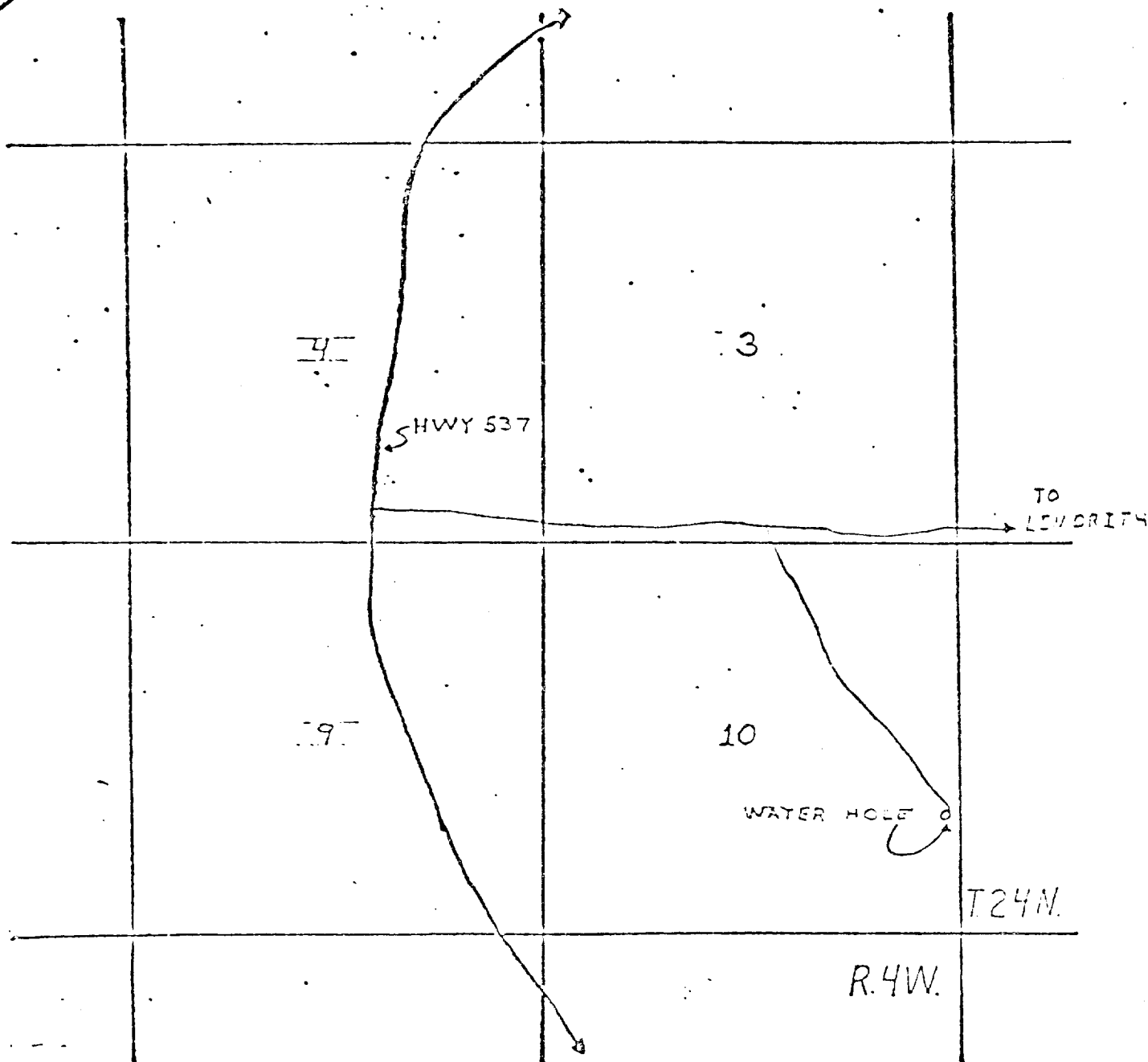
Vicinity Map for
C 03 1979 CONTINENTAL OIL CO. #7 JICARILLA 20
1670' FSL 913' FEL Sec 19-T25N-RLW
RIO ARRIERA COUNTY, NEW MEXICO

U.S. GEOLOGICAL SURVEY
DANCO, COLO.

NEW MEXICO

Exhibit B

ROAD CLASS



CONOCO

PRODUCTION DEPT. HOBBS DIV.
LARGO WATER HOLE

LEGEND

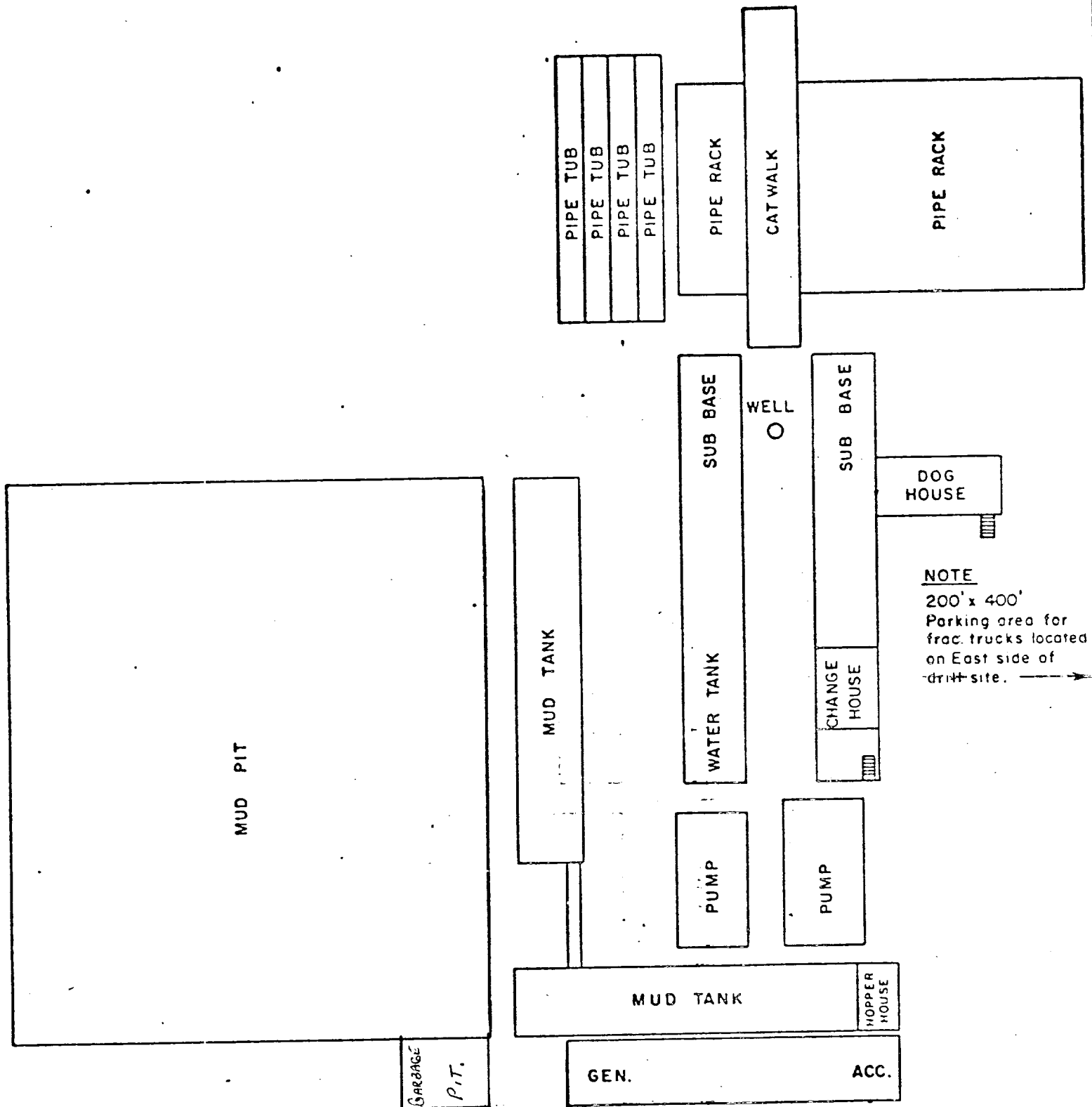
- CONOCO WELL
- ▲ TANK BATTERY
- LEASE ROAD
- HWY.

EXHIBIT C

03 1979

NTS
CHAVEZ

U.S. GEOLOGICAL SURVEY
BOSTON, MASS.



APPROX. RIG SITE DIMENSIONS
160' x 200'

CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT
Casper, Wyoming



LC 03 1979

RIG LAYOUT

GEOLOGICAL SURVEY
FARGO, COLO.

Engineer: ~~XXXXXXXXXX~~

Draftsman: ~~XXXX~~ Date: 1-4-73



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS

ALBUQUERQUE AREA OFFICE

P. O. BOX 8327

ALBUQUERQUE, NEW MEXICO 87198

IN REPLY REFER TO:

Environmental
Quality - 305

NOV 29 1978

Mr. Andrew Anderson
Continental Oil Company
Petroleum Center Building, Rm 215
501 Airport Drive
Farmington, New Mexico 87401

Dear Mr. Anderson:

We have recently received an archeological survey report entitled, "An Archaeological Clearance Survey of Eight Proposed Wells and Access Routes Conducted for Continental Oil Company." This report was prepared by Mr. Billy J. Naylor and Ms. Dabney Ford, dated October 25, 1978, and numbered 78-SJC-209. We understand that you also have a copy of this report.

We have reviewed the portions of this report that deal with proposed activities on lands belonging to the Jicarilla Apache Tribe. We note that no cultural resources are encountered during the requisite field inspection. Therefore, no effect upon significant cultural resources is expected to result from the proposed action. Accordingly, archeological clearance for Jicarilla 30 #16, Jicarilla 22 #10, Jicarilla 20 #8, Jicarilla 20 #7, and AXI Apache K #6A is granted under the following stipulations: 1. that all land altering activity be confined to the archeologically surveyed area; and 2. that in the event that subterranean cultural resources are encountered, that land alteration be halted and the Area Archeologist notified.

If you have any questions regarding this matter, please contact Mr. William C. Allan, Area Archeologist, Environmental Quality Services, at 766-3374.

Sincerely yours,

William C. Allan
Deputy Area Director



Save Energy and You Serve America
ARCHAEOLOGICAL SURVEY
JICARILLA, COLO.

NOV 03 1979

Report 78-SJC-209
Permit 404-77/NM-084
A New Mexico
Service Permit

An Archaeological Clearance Survey of
Eight Proposed Wells and Access Routes
Conducted for Continental Oil Company

Submitted by,
Billy J. Naylor,
Coordinator and
Dabney Ford
Cultural Resource
Management Program
San Juan Campus
N. M. State University
25 October 1978

NOV 1978

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U. S. GEOLOGICAL SURVEY
DENVER, COLO.

An Archaeological Clearance Survey of
Eight Proposed Wells and Access Routes
Conducted for Continental Oil Company

On October 18 and 19, 1978, Billy J. Naylor and Dabney Ford of New Mexico State University's Cultural Resource Management Program, San Juan Campus, conducted an archaeological clearance survey of eight proposed wells and access roads for Continental Oil Company at the request of Mr. Andrew Anderson of Continental Oil Company and Mr. Joe McKinney of Atchison Construction Company.

Mr. Anderson, Mr. McKinney, and Mr. Fred Kerr of Kerr Land Survey were present during the inspections.

The proposed locations and access roads were inspected by walking transects over a 300 X 300 foot area for the location. The access routes were inspected by walking the length of each in a zig-zag pattern, under Federal Antiquities Permits, 404-77/NM-084 and New Mexico State University's Permit for New Mexico States National Forest Lands.

The most recent listings of the National Register of Historic Places have been consulted and no sites which appear on the Register and no sites which have been nominated to the Register occur on the Project area. The proposal complies with the provisions of the Historic Preservation Act of 1966 and with Executive Order 11593. It is recommended that archaeological clearance be given.

Proposed Well: CONTINENTAL OIL - JICARILLA 30 #16

Land Owner: Jicarilla Apache Indian Reservation

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ARCHAEOLOGICAL SURVEY
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Location: 660 feet from the south line and 1980 feet from the west line of Section 29, Township 25 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico. (Figure 1).

Access: Width: 20 feet Length: 500 feet to existing pipeline right-of-way.

Total Area Inspected: 2.6 acres

Terrain: Gently rolling sagebrush flat.

Soil: Sandy loam.

Vegetation: Sagebrush, winter fat, shadscale, russian thistle, wolfberry, blue grama.

Cultural Resources: None found.

Recommendations: Clearance is recommended.

Proposed Well: CONTINENTAL OIL - JICARILLA 22 #10

Land Status: Jicarilla Apache Indian Reservation

Location: 820 feet from the north line and 610 feet from the west line of Section 21, Township 25 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico. (Figure 1).

Access: Adjacent to existing location. No new access.

Total Acreage Inspected: 2.4 acres.

Terrain: Gently rolling to flat small cove.

Soil: Sandy clay loam.

Vegetation: Sagebrush, shadscale, russian thistle, broom snakeweed, black grama.

Cultural Resources: None found.

Recommendations: Clearance is recommended.

Proposed Well: CONTINENTAL OIL - JICARILLA 20 #8

Land Status: Jicarilla Apache Indian Reservation

Location: 770 feet from the north line and 760 feet from the west line of Section 19, Township 25 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico. (Figure 2).

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DENVER, COLO.

Access: Adjacent to existing location. No new access.

Total Area Inspected: 2.4 acres.

Terrain: Level valley floor, flood plain.

Soil: Sandy loam.

Vegetation: Sagebrush, rabbitbrush, russian thistle, crested wheat grass, sand dropseed, indian rice grass, shadscale, black grama.

Cultural Resources: None found.

Recommendations: Clearance is recommended.

Proposed Well: CONTINENTAL OIL - JICARILLA 20 #7

Land Status: Jicarilla Apache Indian Reservation

Location: 1670 feet from the south line and 910 feet from the east line of Section 19, Township 25 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico. (Figure 2).

Access: Width: 20 feet Length: 500 feet.

Total Area Inspected: 2.6 acres.

Terrain: Broken, rolling mesa top.

Soil: Sandy with sandstone boulders.

Vegetation: Piñon, juniper, antelope bitterbrush, gamble's oak, sagebrush, mountain mahogany, prickly pear cacti, broad leaf yucca.

Cultural Resources: None found.

Recommendations: Clearance is recommended.

LIVE

Proposed Well: CONTINENTAL OIL - AXI APACHE K #6A

Land Status: Jicarilla Apache Indian Reservation

Location: 1090 feet from the south line and 1750 feet from the east line of Section 9, Township 26 North, Range 5 West, N.M.P.M., in Rio Arriba County, New Mexico. (Figure 3).

Access: Width: 20 feet Length: 200 feet.

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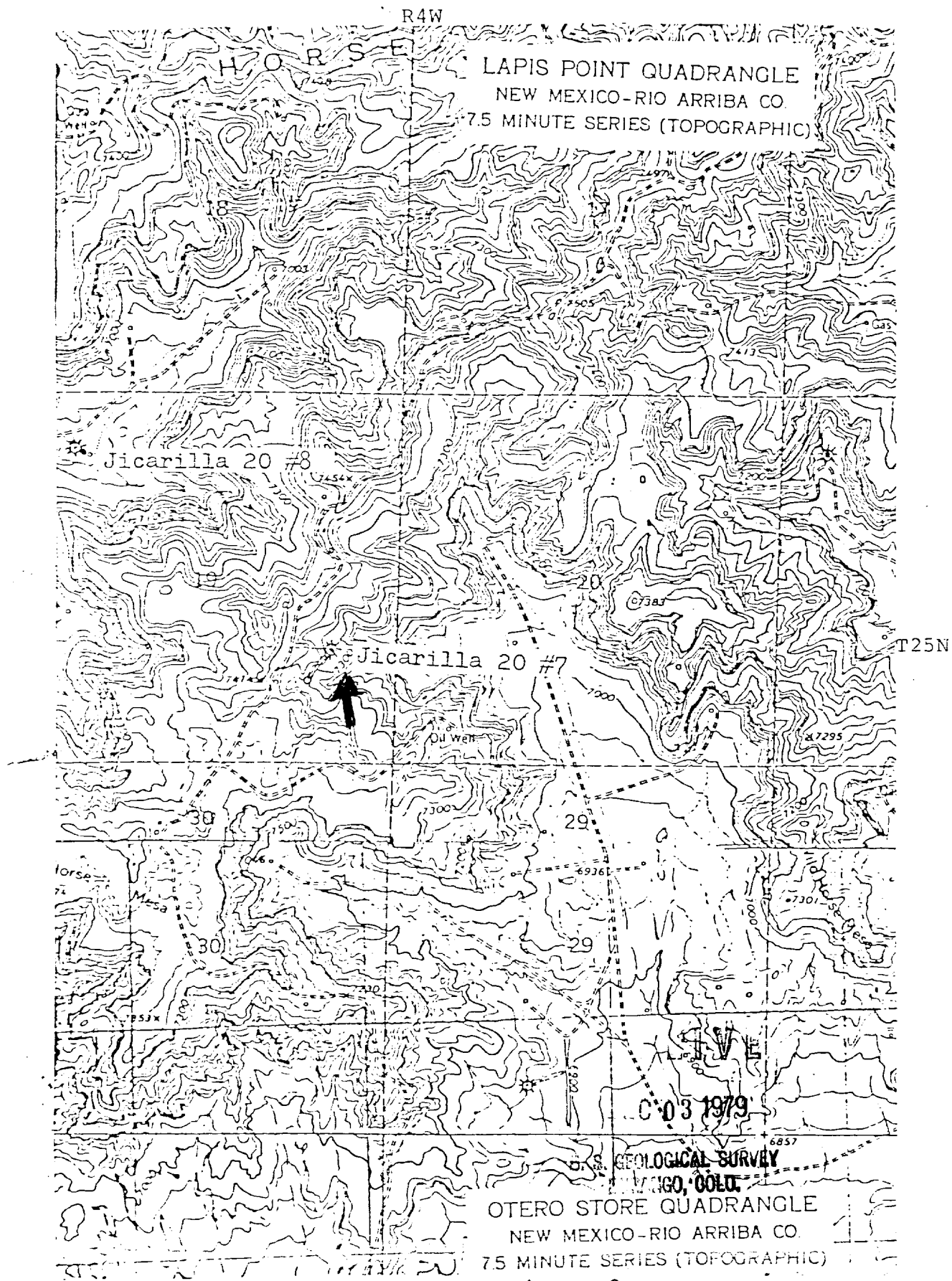


Figure 2