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NEW MEXICO OIL CONSERVATION COMMISSION

APR 7 1980

O. C. D.
ARTESIA, OFFICE

30-035-20020

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input checked="" type="checkbox"/>	FEE <input type="checkbox"/>
5. State Oil & Gas Lease No.	
LG 1311	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name	
2. Name of Operator PENNZOIL COMPANY ✓		9. Well No. 1	
3. Address of Operator P.O. Drawer 1828, Midland, Texas 79702		10. Field and Pool, or Wildcat x Wildcat	
4. Location of Well UNIT LETTER <u>D</u> LOCATED <u>660</u> FEET FROM THE <u>North</u> LINE AND <u>660</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>2</u> TWP. <u>26-S</u> RGE. <u>17-E</u> NMPM		12. County Otero	
19. Proposed Depth 5000'		19A. Formation Fusselman	
20. Rotary or C.T. Rotary			
21. Elevations (Show whether DF, RT, etc.) 4084.2 GR	21A. Kind & Status Plug. Bond Blanket	21B. Drilling Contractor Ard Drilling	22. Approx. Date Work will start 5/15/80

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/4	8-5/8	24	1100	600	Surface
7-7/8	4-1/2	9.5	5000	1100	1500

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,
EXPIRES 8-5-80

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed [Signature] Title District Production Manager Date 4/3/80

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR, DISTRICT II DATE MAY - 5 1980

CONDITIONS OF APPROVAL, IF ANY:

Cement must be circulated to
surface behind 8-5-80 casing

WELL LOCATION AND ACREAGE DEDICATION PLAT

Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator Pennzoil Co.		Lease Southland State		Well No. 1	
Unit Letter D	Section 2	Township 26 South	Range 17 East	County Otero	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the West line					
Ground Level Elev. 4084.2	Producing Formation Fusselman		Flow wildcat	Estimated Acreage 40 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

O. C. D.

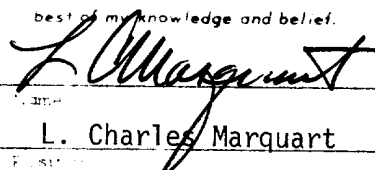
ARTESIA, OFFICE

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.


L. Charles Marquart

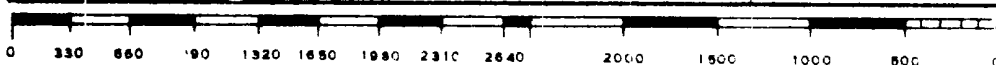
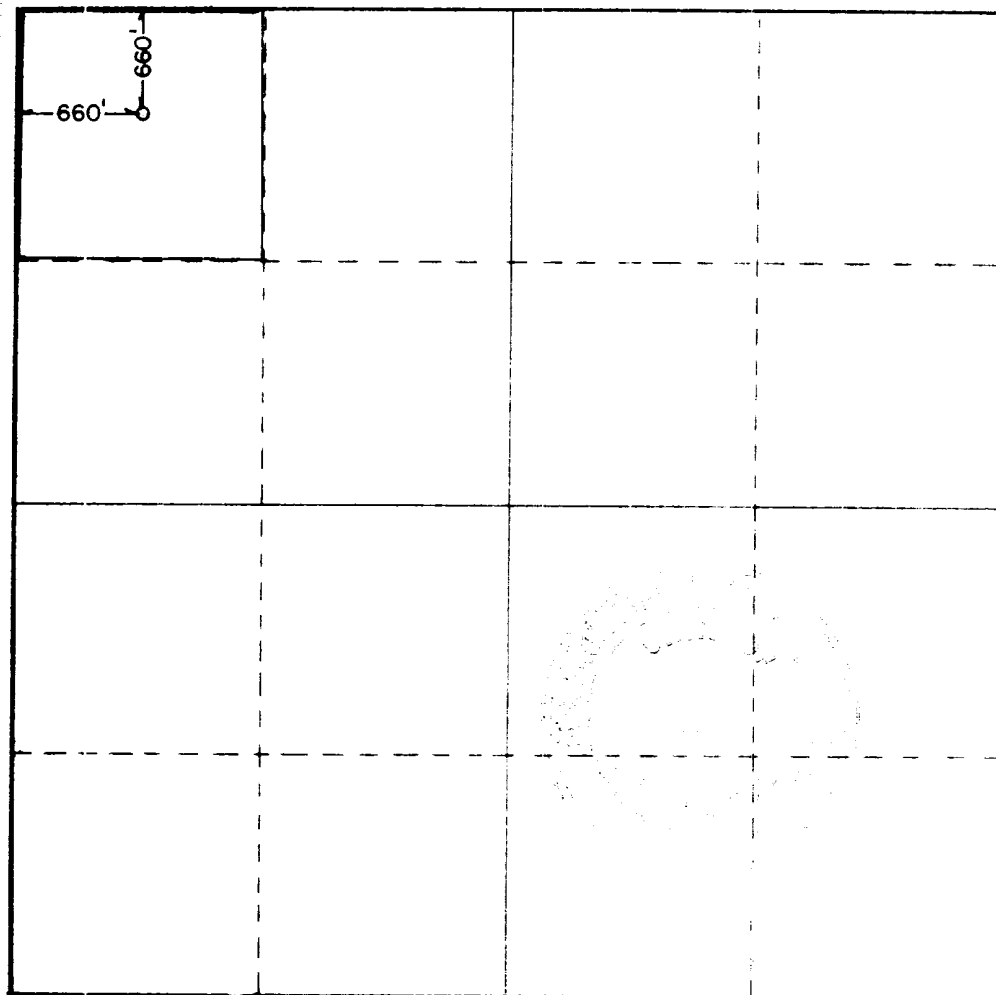
District Production Mgr.

PENNZOIL COMPANY

April 3, 1980

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.

March 25, 1980

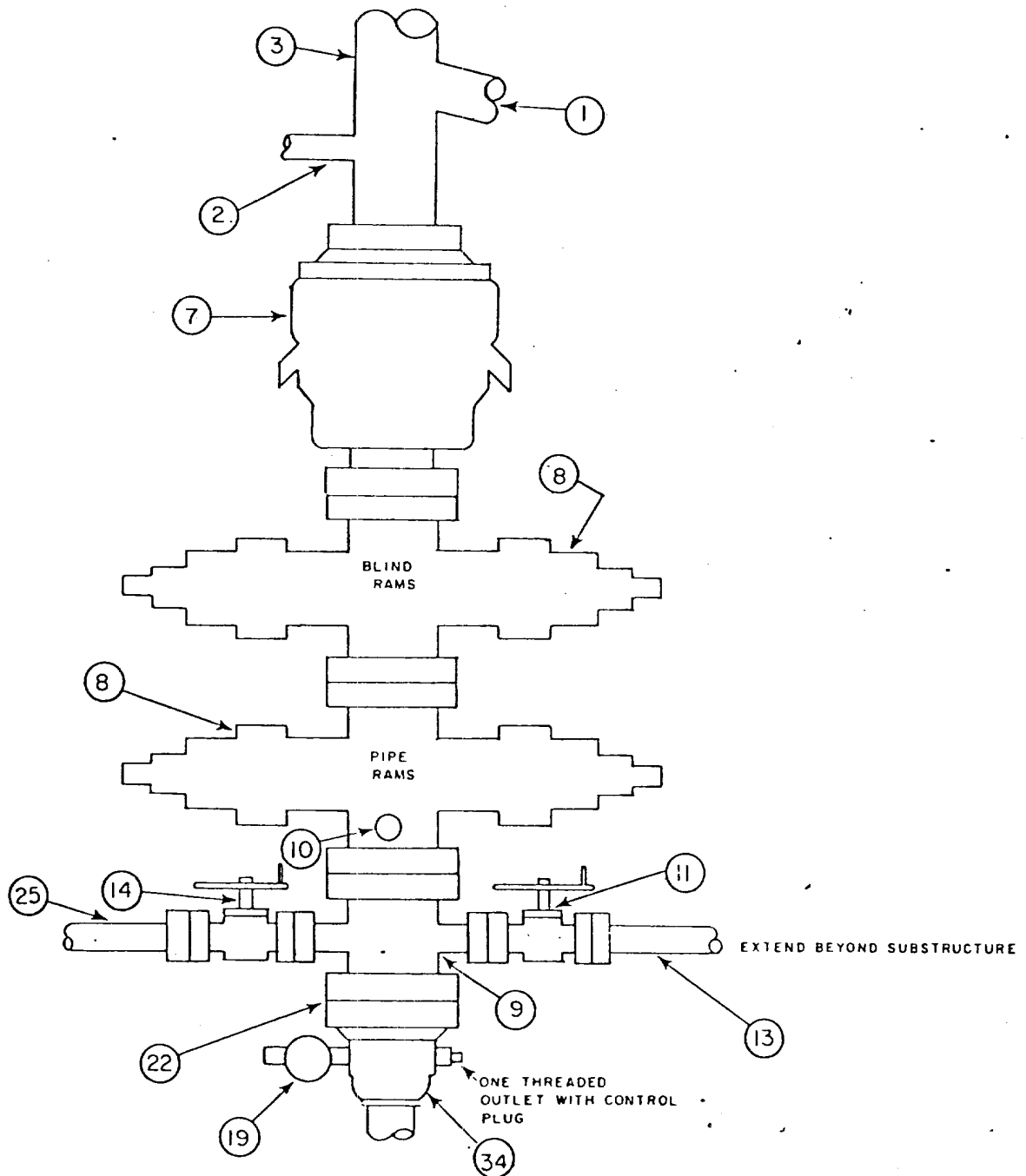
Professional Engineer
or Licensed Surveyor
Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6683
Ronald J. Eidson 3239

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Pennzoil Company

MAY -1 1980

O. C. D.
ARTESIA, OFFICE



km

CHECK LIST AND DRAWINGS (ATTACHED)
 MINIMUM BLOWOUT PREVENTER EQUIPMENT REQUIREMENTS
 (ATTACHMENT NO. 2 TO BID SHEET AND WELL SPECIFICATIONS)
 3000 PSI WORKING PRESSURE
 TO BE INSTALLED AFTER SETTING 8-5/8 INCH CASING

ATTACHMENT NO. 2
 (See Section 4)
 Page 1 of 1

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MAY - 1 1980

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Contractor or Pzl. to furnish items checked (X). See attached drawing.

No.	Item	Min. Size *	Type	Press. Rating	Furnished By	
					Contr.	Pzl.
1.	Flow Line	8"	Weld	125	X	
2.	Fill Up Line	2"	Thd or Weld	125	X	
3.	Bell Nipple	8"	Weld	125	X	
4.	Rotating Head					
5.	Hydraulically Operated Gate Valve					
6.	Blooe Line					
7.	Bag Preventer	8"	Flange	3000	X	
8.	Hydraulically Operated Ram Preventer or Rotating Head					
9.	Drilling Spool with 2 in. and 2 in. Side Outlets	8"	Flange	3000	X	
10.	Preventer Side Outlets, 2 in. and 2 in. Use as alternate to No. 9 above.	8"	Flange	3000	X	
11.	Gate Valve	2"	Thd or Flge	3000	X	
12.	Hydraulically Operated Gate Valve					
13.	Line to Choke Manifold	2"	Thd or Flge	3000	X	
14.	Gate Valve	2"	Thd or Flge	3000	X	
15.	Hydraulically Operated Gate Valve					
16.	Check Valve					
17.	Drilling Spool with _____ in. and _____ in. side outlets					
18.	Preventer Side Outlets _____ in. and _____ in. Use as alternate to No. 17 above.					
19.	Gate Valve	2"	Thd	3000		X
20.	Hydraulically Operated Gate Valve					
21.	Relief Line					
22.	Wear Flange or Bushing	N/A				
23.	K II Line to accessible location approx. _____ ft. from rig.					
24.	Gate Valve					
25.	K II Line to rig pump manifold	2"	Thd or Flge	3000	X	
26.	_____ Way Cross, _____ in. x _____ in. x _____ in. x _____ in.					
27.	Tee, _____ in. x _____ in. x _____ in.					
28.	Half Union					
29.	Casing Spool					
30.	Gate Valve					
31.	Casing Spool					
32.	Gate Valve					
33.	Pressure Gauge					
34.	Casing Head	8"	Flge or Thd	3000		X
35.	Gate Valve					
36.	Gate Valve					

*Line sizes to be inside diometer.

Valves, spools and preventer sizes to be bore dimension.

for

EXPLANATION

GEOLOGY



VALLEY FILL

ALLUVIUM AND LACUSTRINE DEPOSITS COMPOSED OF BOULDERS, COBBLES, GRAVEL, SAND, SILT, AND CLAY. CONTAINS SOME GYPSUM AND SALT IN PLACES. YIELDS LARGE QUANTITIES OF WATER TO A FEW WELLS. WATER IS HARD AND SALINE IN LOWLAND AREAS.



LIMESTONE

MOSTLY MASSIVE GRAY LIMESTONE INTERBEDDED WITH BLACK CHERTY LIMESTONE, SHALY LIMESTONE, AND SILICEOUS SHALE. CONTAINS MANY INTERCONNECTED SOLUTION CHANNELS FILLED WITH POTABLE BUT HARD WATER. YIELDS LARGE QUANTITIES OF WATER TO WELLS.

WELLS

WELLS IN VALLEY FILL INDICATED BY SOLID CIRCLE, WELLS IN LIMESTONE BY OPEN CIRCLE. QUESTION MARKS INDICATE THAT WATER-BEARING FORMATION IS NOT KNOWN. WELLS CLASSIFIED ONLY AS TO USE OR INTENDED USE.

● ●
IRRIGATION WELLS

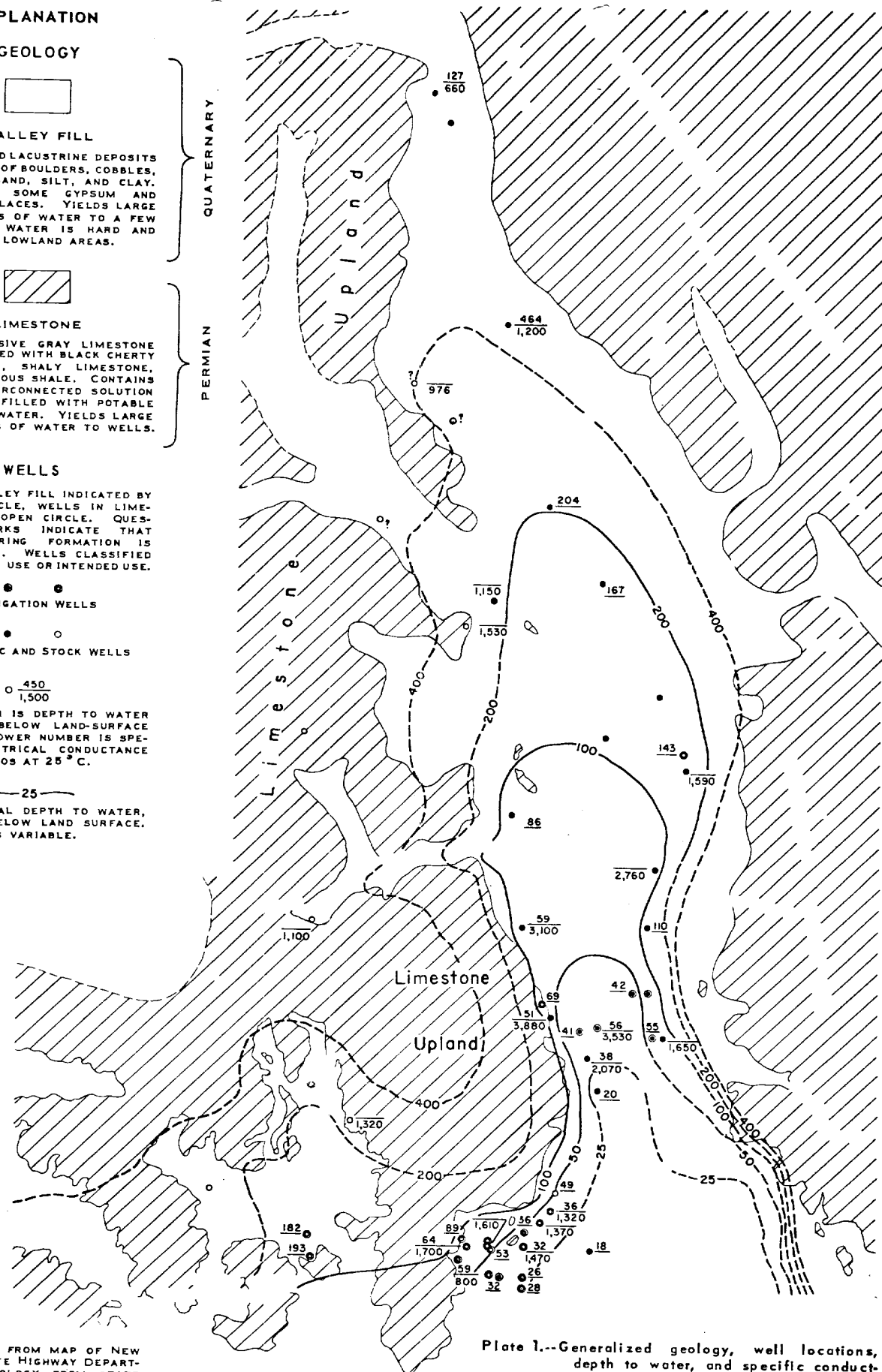
● ○
DOMESTIC AND STOCK WELLS

○ 450
1,500

UPPER NUMBER IS DEPTH TO WATER IN FEET BELOW LAND-SURFACE DATUM. LOWER NUMBER IS SPECIFIC ELECTRICAL CONDUCTANCE IN MICROMHOS AT 25° C.

— 25 —

LINE OF EQUAL DEPTH TO WATER, IN FEET BELOW LAND SURFACE. INTERVAL IS VARIABLE.



BASE MODIFIED FROM MAP OF NEW MEXICO, STATE HIGHWAY DEPARTMENT. GEOLOGY FROM STATE LINE NORTHWARD ABOUT 9 MILES AFTER KING (1949).

Plate 1.--Generalized geology, well locations, depth to water, and specific conductance of water in the Crow Flats area, Otero County, N. Mex.