N.M.O.C.D. COPY

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-23153

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED
JAN 31 1980
O. C. D.
ARTESIA, OFFICE

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: THE SUPERIOR OIL COMPANY

3. ADDRESS OF OPERATOR: P. O. BOX 71, CONROE, TEXAS 77301

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 1980' FWL OF SEC. 28, T22S, R31E
At proposed prod. zone: VERTICAL

5. LEASE DESIGNATION AND SERIAL NO.: 21773
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: GOVERNMENT "Q"
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: WILDCAT
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 28, T22S, R31E
12. COUNTY OR PARISH: EDDY
13. STATE: NEW MEXICO

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 34½ miles ESE of Carlsbad

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980' FSC of Sec.28
16. NO. OF ACRES IN LEASE: 480
17. NO. OF ACRES ASSIGNED TO THIS WELL: 320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: None
19. PROPOSED DEPTH: 14800
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3418.0 GR
22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
	20"		40'	See Exhibit "F"
17-1/2"	13-3/8"	48#	650'	
12-1/4"	10-3/4"	40.5 & 45.5#	4,125'	
9-1/2"	7-5/8"	26.4 & 29.7#	12,050'	
6-1/2"	5-1/2"	20.0#	11800 - 14800 (liner)	

Mud Program: See Exhibit "G"

BOP Program: Series 1500 BOP See Exhibit "E"

Gas not Dedicated

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ARTESIA, NEW MEXICO

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. V. LeBlanc TITLE Regulatory Eng. Specialist DATE

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE 1-30-80

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

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	Lease	Well No.
The Superior Oil Company	Government Q	1

Unit Letter	Section	Township	Range	County
K	28	22 South	31 East	Eddy

Actual Footage Location of Well:
1980 feet from the South line and 1980 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3418.0	Morrow	Wildcat	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

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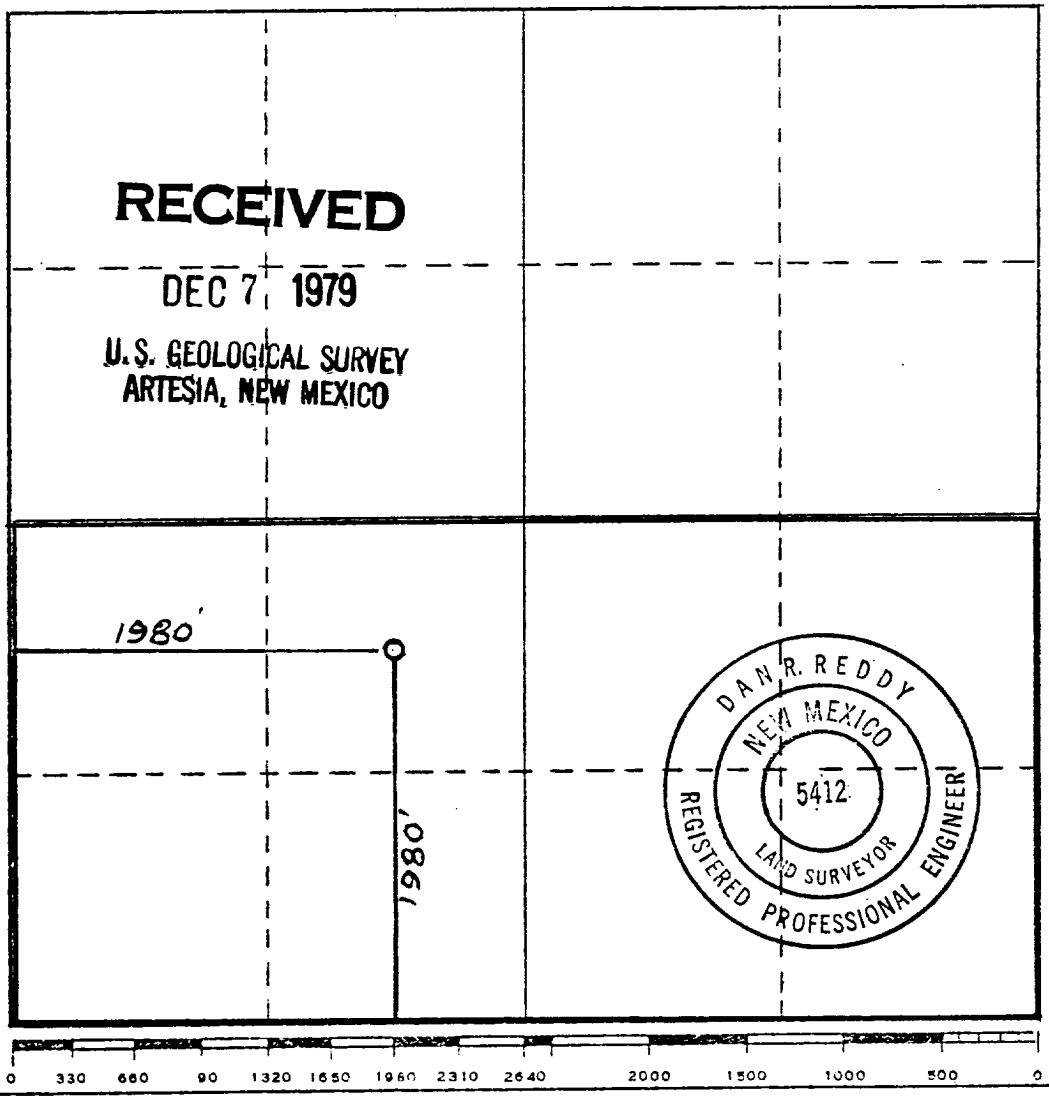
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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: F. H. Speers

Position: Regulatory Eng. Specialist

Company: The Superior Oil Company

Date: November 27, 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: Oct. 19, 1979

Registered Professional Engineer and/or Land Surveyor

Dan R. Reddy

Certificate No. NMPE&LS #5412

United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Box 26124
Albuquerque, New Mexico 87125

RECEIVED
JAN 31 1980
O. C. D.
ARTESIA, OFFICE

JAN 30 1980

The Superior Oil Company
P. O. Box 71
Conroe, Texas 77301

Gentlemen:

SUPERIOR OIL COMPANY Government "Q" No. 1 1980 FSL 1980 FWL Sec. 28 T.22S R.31E Eddy County Lease No. NM 21773
Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well in the Secretary's Oil-Potash Area to a depth of 14,800 feet to test the Morrow is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Oil and Gas Operations on Federal Leases, dated July 1, 1978.

2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan and these Conditions of Approval including the attached General Requirements.

3. Submit a Daily Report of Operations from spud date until the well is completed and the Well Completion Report (form 9-330) is filed. The report should not be less than 8" x 5" in size and each page should identify the well.

4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).

5. Before drilling below the 10-3/4" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

6. A kelly cock will be installed and maintained in operable condition.

7. After setting the 10-3/4" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

   (1) A recording pit level indicator to determine pit volume gains and losses.

   (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.

   (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.

9. Notify the Survey in sufficient time to witness the cementing of the 13-3/8" and 10-3/4" casing.

10. Cement behind the 20", 13-3/8", and 10-3/4" casing must be circulated.

11. It is required that a Gamma-Ray-Neutron Log be run in open hole from the base of Salado to the surface at a speed not to exceed 30 feet per minute.

12. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

(ORIG. SGD.) JAMES W. SUTHERLAND

Area Oil and Gas Supervisor

Enclosure

cc:
Regional Manager, Denver
Mining Branch (2)
BLM, Roswell (w/cy Notice)
NMOCD, Artesia (2) (w/2 cys Notice)
Artesia
Roswell (w/cy Notice)
Area (potash)
Area (chrono.)
District (potash)
District (chrono)

APPLICATION FOR DRILLING

THE SUPERIOR OIL COMPANY

Goverment "Q" No. 1
1980' FSL & 1980' FWL
Sec. 28, T22S, R31E
Eddy County, New Mexico

In conjunction with Form 9-331C, Application for Permit to drill subject well, The Superior Oil Company submits the following ten (10) items of pertinent information in accordance with USGS requirements.

1. The geological surface formation is Permian.

2. The estimated tops of geologic markers are as follows:

Delaware	4,075'
Strawn	12,750'
Morrow	14,515'

3. The estimated depths at which anticipated water, gas or oil formation are expected to be encountered:

Water:	Approximately 300' to 500'
Oil or Gas:	Morrow

4. Proposed Casing Program: See Form 9-331C and Exhibit F.

5. Pressure Control Equipment: See Form 9-331C and Exhibit E.

6. Mud Program: See Exhibit G.

7. Auxiliary Equipment: See Exhibit H.

8. Testing, Logging and Coring Programs

   (1) 2 DST's may be taken in Morrow near T.D.

   (2) Logging:

   Mud Logging unit will be used from 4,100' to T.D.
   Electric logging program:

(a)	630 - 4,100'	GR/Sonic
(b)	4,100 - 12,000'	GR/Sonic, Dual Laterolog w/ GR & RXO
(c)	12,000 - T. D.	GR/FDC/CNL, Dual Laterolog w/ GR & RXO

9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date - ASAP.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

THE SUPERIOR OIL COMPANY

GOVERNMENT "Q" WELL NO. 1
1980' FSL & 1980' FWL
SECTION 28, T22S, R31E
EDDY COUNTY, NEW MEXICO

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DEC 7 1979
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

This plan is submitted with Form 9-331C, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedure to be followed in rehabilitating, so that a complete appraisal can be made of the environmental effects associated with the operations.

1. EXISTING ROADS

A. Exhibit A is the route map showing the roads leading into the well site from the city of Carlsbad, and this route is colored red. Exhibit B is a portion of the USGS topographic map of the area on a scale of one mile per inch, showing the location of the proposed well site and roads in the vicinity. The proposed location (Q) is approximately 34½ miles ESE from the City of Carlsbad.

DIRECTIONS:

1. Proceed S.E. from Carlsbad on U. S. Highway 285, approximately 11½ miles to Levine.
2. Turn East on Highway 31 for 8 miles then turn right on Highway 128 East for 10 miles.
3. Turn left on the WIPP (Waste Isolation Pilot Project) road as follows: N 1 mile, E ½ mile, N 1 mile, E 2 miles, N.E. on Ranch Road ½ miles to location in Section 28.

2. PLANNED ACCESS ROAD

A. The proposed new access road will be approximately 400' in length from the NE end of the Ranch Road to the edge of the drilling pad. The road will lie in a north/south direction.

B. The new road will be 12 feet wide (driving surface), except at the point or origin, adjacent to the existing road, at which point enough additional width will be provided to allow heavy trucks and equipment to turn.

C. The surface will be crowned, with drainage on both sides. No turnouts will be necessary. The road will be covered with caliche. Caliche is available from an approved pit located in the NE ¼ of Section 32, T22S, R31E, as shown on the attached contour map.

D. The center line of the new road has been staked and flagged and the route of the road is clearly visable.

3. LOCATIONS OF EXISTING WELLS

A. The well locations in the vicinity of the proposed well are shown in Exhibit C. There are no wells within a one mile radius of our proposed location.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. There are no producing wells on this lease at the present time.

B. In the event that the well is productive and power is required, an electric generating power plant will be installed.

C. The attached topographic map labelled LAND USE PLAN is on a scale of approximately 1/6" to the mile, and shows the proposed flow lines to a central production facility in the SW corner of Sec. 28,T22S,R31E. An archeological survey will be conducted over the 300' X 300' (2.1 Acre) battery site and flow line routes indicated before obtaining the necessary USGS approval of this central facility.

5. LOCATION AND TYPE OF WATER SUPPLY

A. It is planned to drill the proposed well with a fresh water mud system. The water will be obtained from a fresh water well drilled at a convenient location on the drilling pad. If this is not feasable, then the water will be hauled by tank trucks.

6. SOURCES OF CONSTRUCTION MATERIAL

A. The material to be used on the drilling pad and service roads will be native caliche obtained from an approved nearby caliche pit, in NE ¼ of Section 32, T22S, R31E.

7. METHOD OF HANDLING WASTE DISPOSAL

A. Drill cuttings will be disposed of in reserve pits.

B. Drilling fluid will be allowed to evaporate in the reserve pits until the pits are dry, then the pits will be backfilled.

C. Water produced during operations will be collected in steel tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the USGS for appropricate approval.

D. Oil produced during operations will be stored in steel storage tanks until sold.

E. Current laws and requlations pertaining to the disposal of human waste will be complied with.

F. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.

G. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

A. None required at this time - See Item 4-C.

9. WELLSITE LAYOUT

A. Exhibit D shows the dimensions of the well pad and reserve pits, and the location of major rig components.

B. The ground surface at the drilling location is sloping down toward the west Cutting will be required to level the pad area.

C. The reserve pits will be plastic lined.

D. The pad and pit area has been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE

A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.

B. Unguarded pits, if any, containing fluids will be fenced until they have been backfilled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. TOPOGRAPHY

A. The wellsite and access route are located in a gradual sloping area.

B. The top soil at the wellsite is sandy loam.

C. The vegetation cover at the wellsite is a moderately sparse, with prairie grasses, some yucca, and miscellaneous weeds.

D. No wildlife was observed but it is likely that rabbits, lizards, insects, and rodents traverse the area. The area is used for cattle grazing.

E. There are no ponds, lakes, streams, or rivers within several miles of the wellsite.

F. The wellsite is located on federal surface.

G. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

12. OPERATOR'S REPRESENTATIVES

A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Division Drilling Supt.
The Superior Oil Company
Bob True
Carlsbad, New Mexico
Phone 505-887-7833 (Home & Office)

Drilling Engr.
The Superior Oil Company
Larry Ivie
Conroe, Texas 77301
Phone 713-539-1771 (Office)
713-376-3291 (Home)

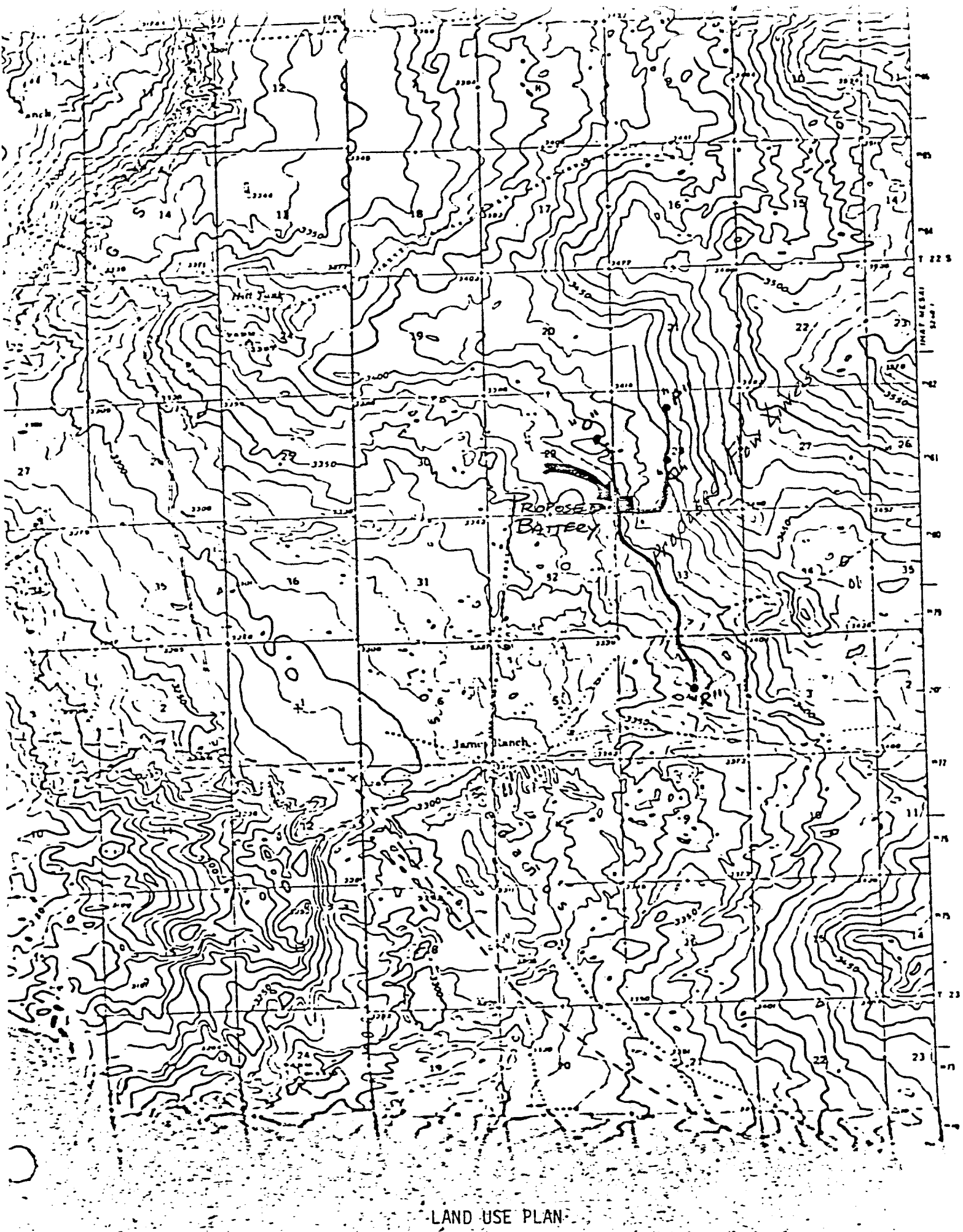
District Geologist
The Superior Oil Company
George Gail
Midland, Texas 79701
Phone 915-683-5251 (Office)

13. CERTIFICATION

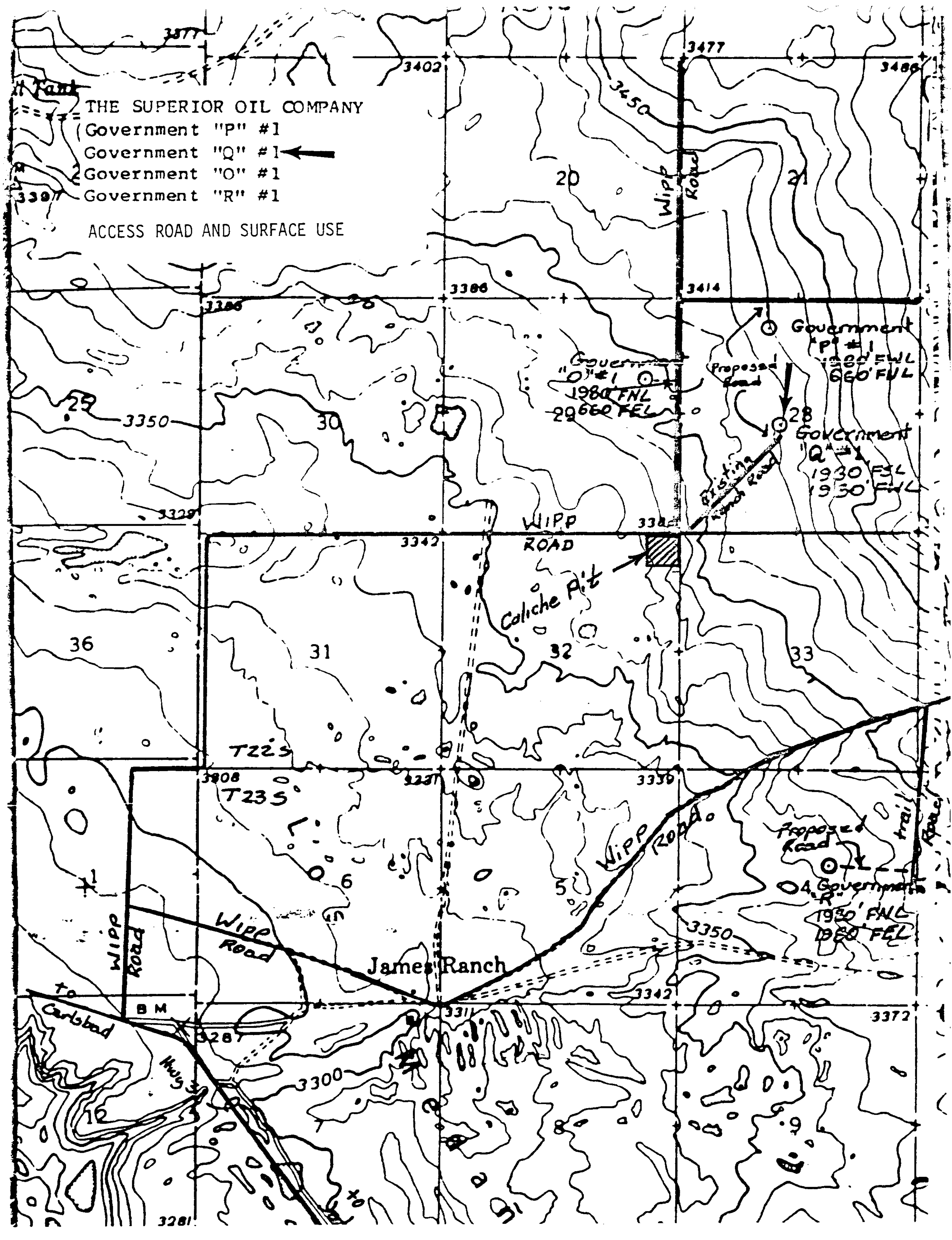
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Sabine Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

12/4/79
DATE

J. Maxwell Jr.



LAND USE PLAN



THE SUPERIOR OIL COMPANY
Government "P" #1
Government "Q" #1
Government "O" #1
Government "R" #1
ACCESS ROAD AND SURFACE USE
Government "P" #1
1980' FWL
660' FNL
Government "O" #1
1980' FNL
660' FEL
Proposed Road
Government "Q" #1
1930' FSL
1930' FWL
Existing Ranch Road
WIPP ROAD
Wipp Road
Caliche Pit
T22S
T23S
Proposed Road
Government "R"
1930' FNL
1980' FEL
Trail Road
James Ranch
to Carlsbad
Hwy
BM
20
21
25
29
30
28
31
32
33
36
1
5
6
7
8
9
12
3350
3300
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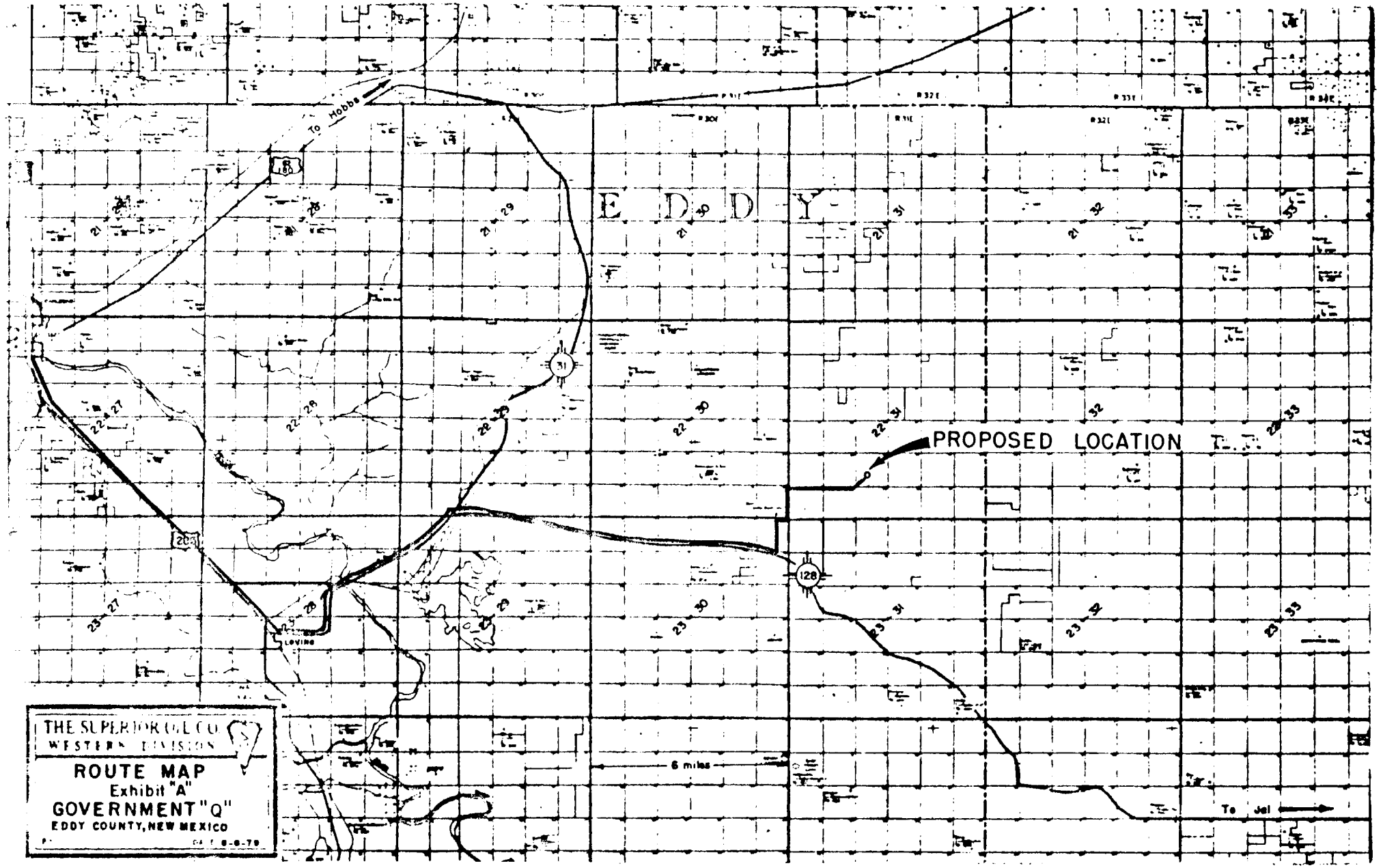
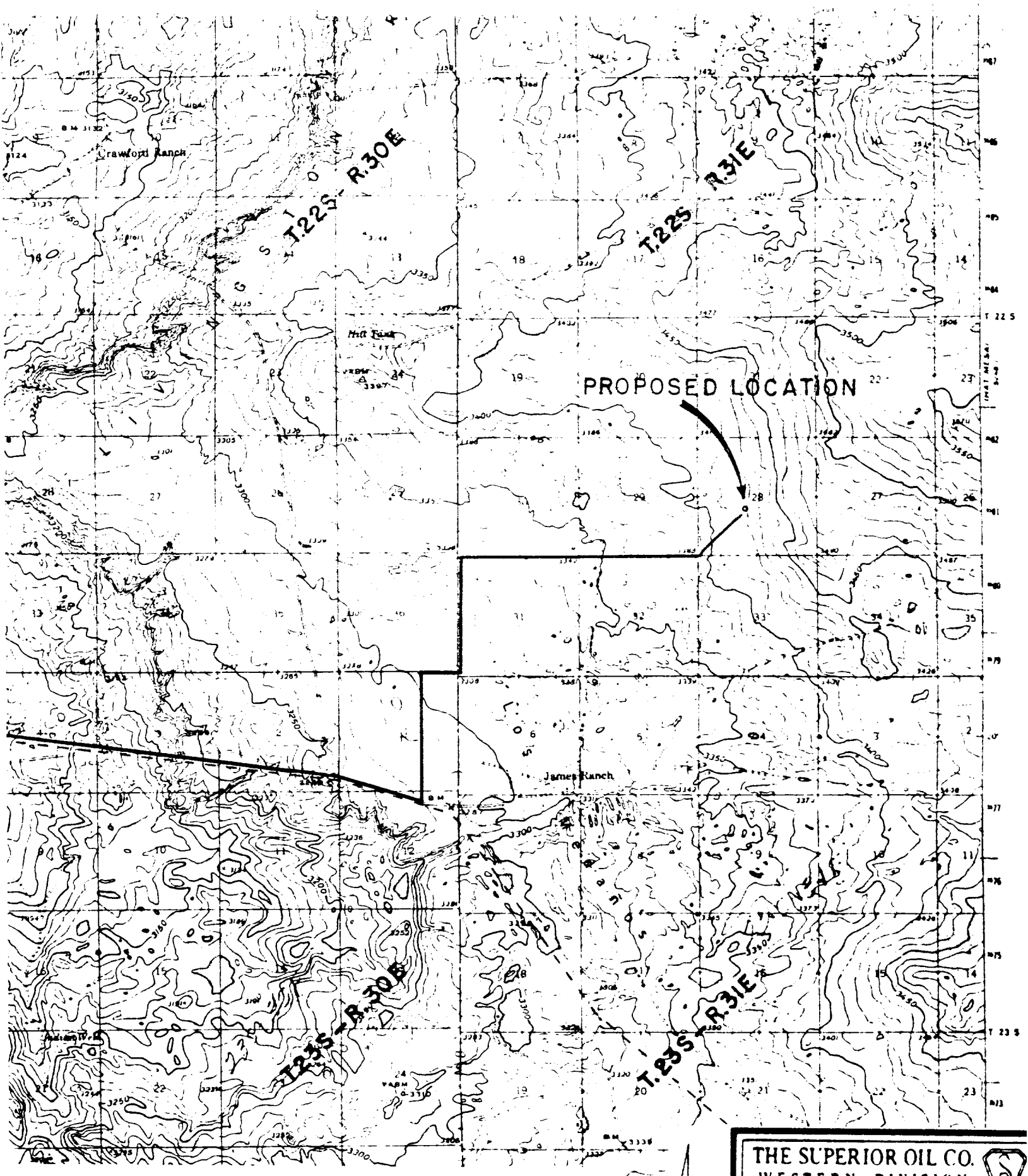
3372
3311
3287
3281


To Hobbs
E D D Y
PROPOSED LOCATION
Loving
6 miles
To Jal
THE SUPERIOR OIL CO
WESTERN DIVISION
ROUTE MAP
Exhibit "A"
GOVERNMENT "Q"
EDDY COUNTY, NEW MEXICO

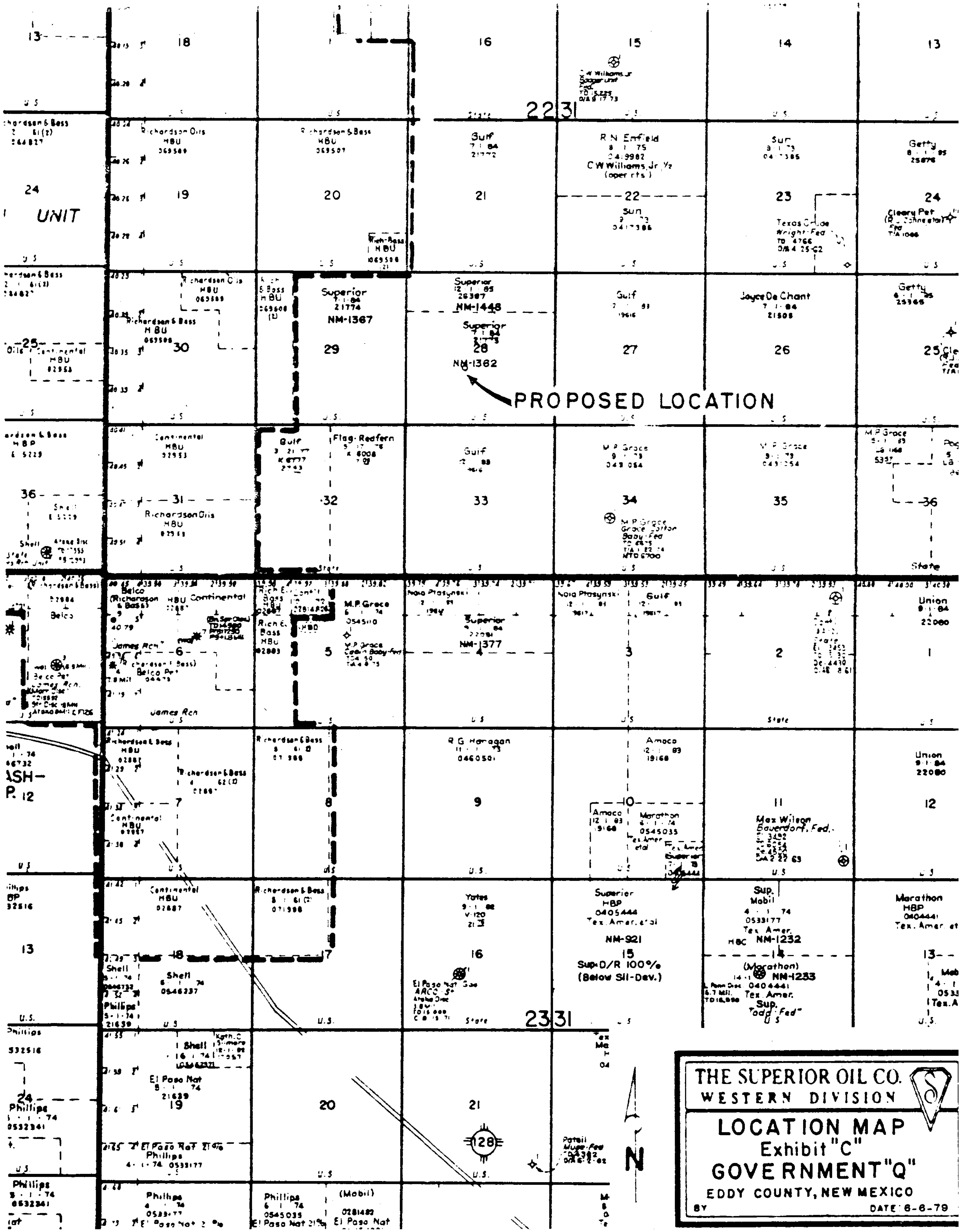


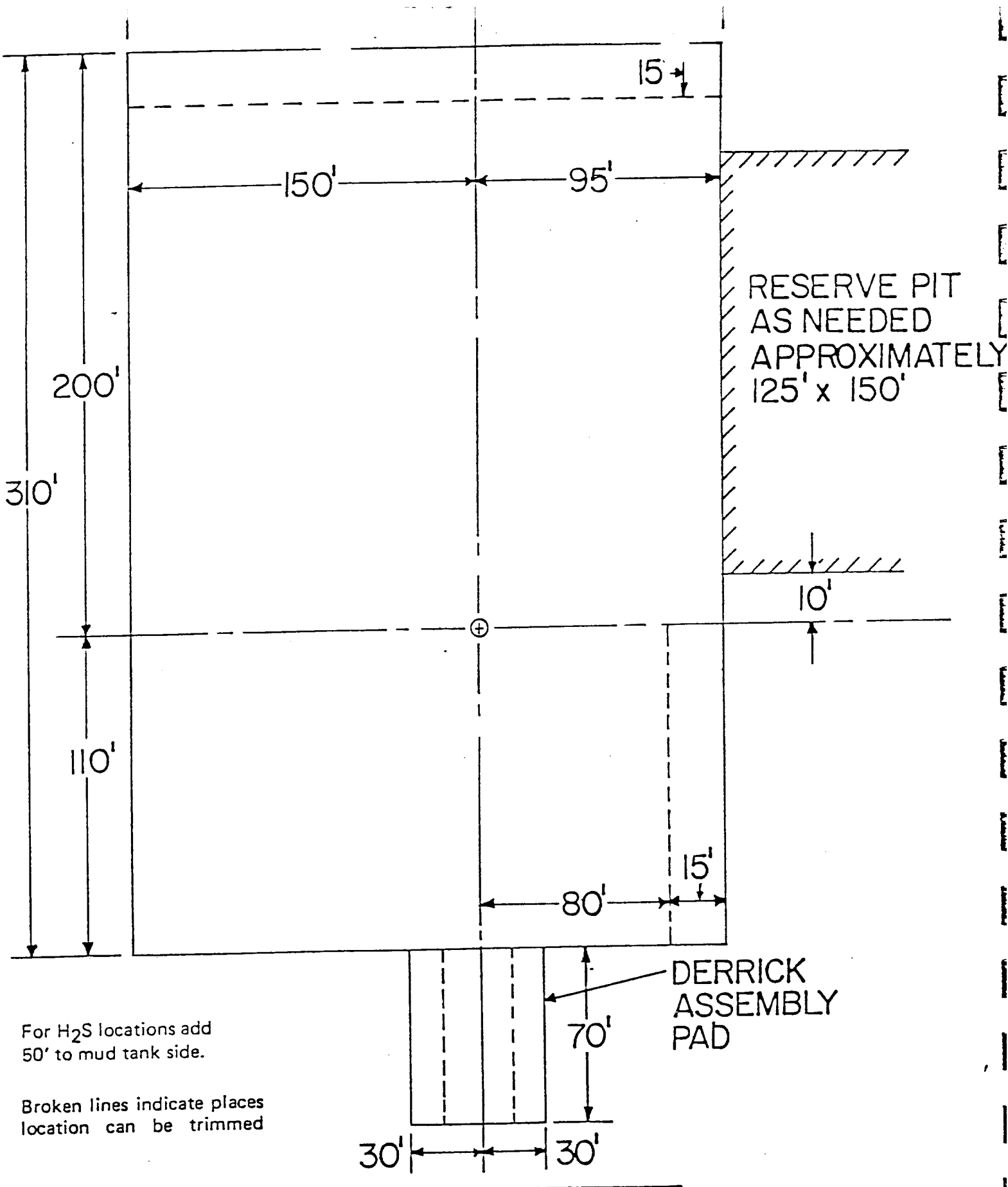
Contour interval 10 feet
Datum is mean sea level

THE SUPERIOR OIL CO.
WESTERN DIVISION

TOPOGRAPHIC MAP
Exhibit "B"
GOVERNMENT "Q"
EDDY COUNTY, NEW MEXICO

BY
DATE: 8-6-79

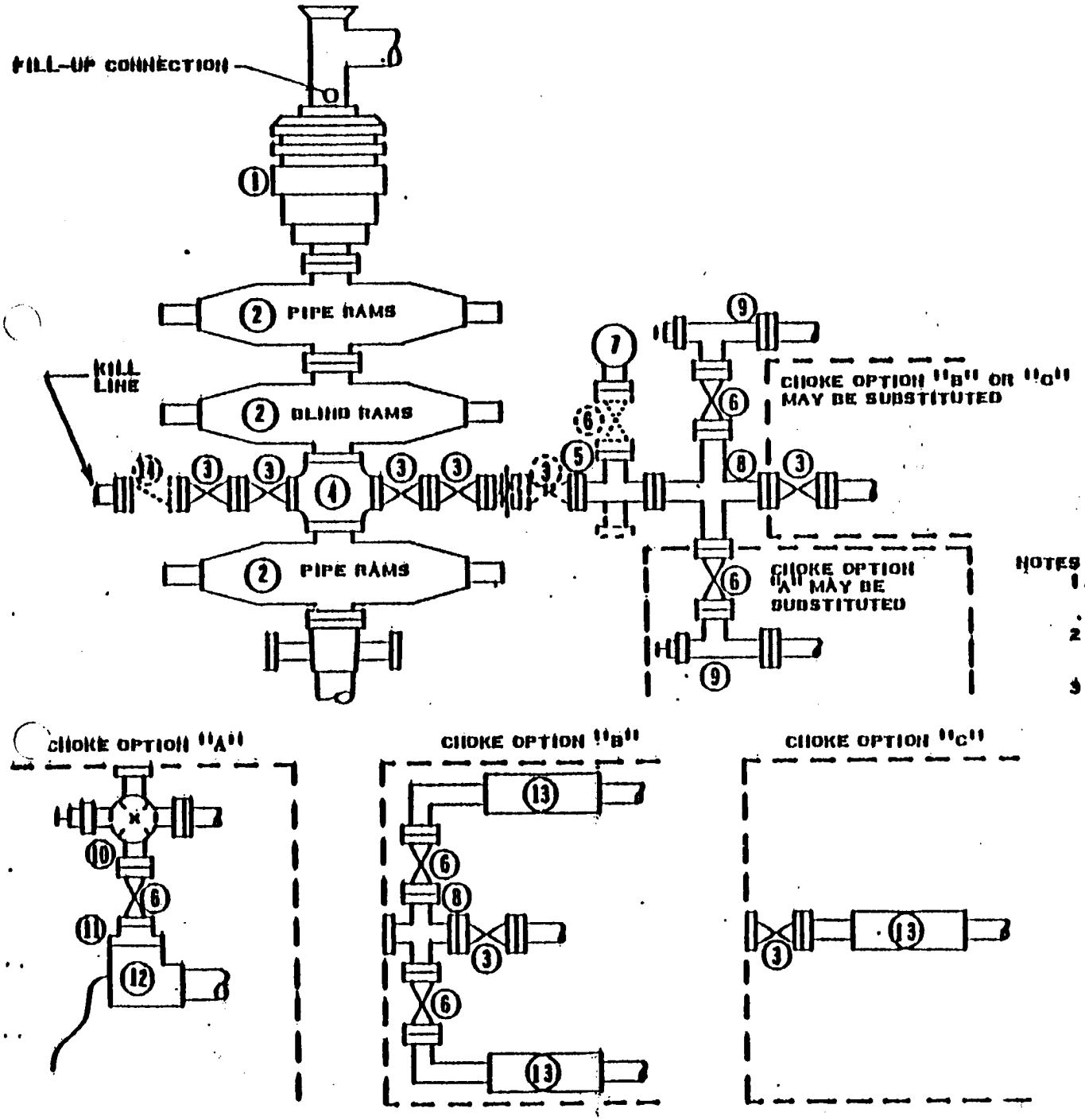

THE SUPERIOR OIL CO.
WESTERN DIVISION
LOCATION MAP
Exhibit "C"
GOVERNMENT "Q"
EDDY COUNTY, NEW MEXICO
BY
DATE: 6-6-79
PROPOSED LOCATION
22 31
23 31
UNIT
N
128
Superior
NM-1362
NM-1367
NM-1448
NM-1377
NM-921
NM-1232
NM-1233
Richardson Oil
Richardson & Bass
HBU
Continental
Gulf
R.N. Enfield
C.W. Williams, Jr. ½
(oper. rts.)
Sun
Getty
Texas Crude
Wright-Fed
Joyce De Chant
Flag-Redfern
M.P. Grace
Shell
Belco
James Rch
Nola Prasynski
Union
R.G. Hanagan
Amoco
Marathon
Max Wilson
Yates
El Paso Nat. Gas
Sup. D/R 100%
(Below SII-Dev.)
Tex. Amer. et al
Phillips
El Paso Nat
(Mobil)



For H_2S locations add 50' to mud tank side.

Broken lines indicate places location can be trimmed

LOCATION DIMENSIONS
RIG 36
EXHIBIT D



(1) SER. 1500 HYDRIL GK
(2) SER, 1500 RAM-TYPE BOP (8)
(3) 3" SER. 1500 VALVE
(4) SER. 1500 DRILLING SPOOL
(5) 3" SER. 1500 X 2" SER. 1500 STEEL TEE
(6) 2" SER. 1500 VALVE
(7) 2" MUD PRESSURE GUAGE
(8) 3" SER. 1500 X 2" SER. 1500 STEEL CROSS
(9) 2" SER. 1500 ADJ. CHOKE
(10) 2" SER. 1500 ADJ. CHOKE ON 2" SER. 1500 RISER VALVE ON SIDE OUTLET OF 2" SER. 1500 STEEL TEE
(11) ADAPTER, 2" SER. 1500 X 10,000 LB WP FLANGE MATING (12) INLET
(12) 10,000 LB WP REMOTE CHOKE
(13) HYDRAULIC CHOKE, 2500 LB WP OR BETTER
(14) 3" SER. 1500 CHECK VALVE

NOTES

1. 5000 PSI WP OR BETTER CLAMP HUBS MAY BE SUBSTITUTED FOR FLANGES
2. ONE ADJUSTABLE CHOKE MAY BE REPLACED WITH A POSITIVE CHOKE
3. VALVES MAY BE EITHER HAND OR POWER, OPERATED BUT, IF POWER OPERATED. THE VALVES FLANGED TO THE BOP RAM MUST BE CAPABLE OF BEING OPENED AND CLOSED MANUALLY OR CLOSE ON POWER FAILURE AND BE CAPABLE OF BEING OPENED MANUALLY

5000 PSI WORKING PRESSURE BLOWOUT PREVENTER HOOK-UP

(SERIES 1500 FLANGES OR BETTER)

EXHIBIT E

EXHIBIT F

D R I L L I N G P R O G R A M

Government "Q" Well No. 1

LOCATION: 1980' FSL & 1980' FWL
Sec. 28, TWP 22S, R31E
Eddy County, New Mexico

HOLE SIZE AND CASING PROGRAM

20" Casing to 40' ±
Set 40'± of 20" casing using rat hole equipment. Cement to surface w/ RediMix cement.

17-1/2" Hole to 650'
Drill a 17-12" hole to 650'. Run 13-3/8", 48#, H-40, ST&C. Cement to surface w/ 275 sxs Halliburton Light (water ratio-8.9 gals/sx, slurry Wt. 12.7 PPG, slurry volume 1.84 FT3/sx), followed by 300 sxs class "C" + 2% CaCl2 (water ratio - 6.3 gals/sx, slurry Wt 14.8 PPG, slurry volume 1.32 FT3/sx). Cement volume based on 100% open hole excess. NU BOPs. Test casing to 500# and BOP to 2000#.

12-1/4" Hole to 4125' ± (50' into Delaware)
Have lost circ material on location before drilling out of 13-3/8" casing. Drill 12-1/4" hole to 4125' ± (50' into Delaware). Anticipate lost circ w/ possibility of dry drilling. Run GR-BHC log. Run 10-3/4" 40.5# & 45.5#, K-55, S-80, ST&C casing. Cement to surface w/ 575 sxs Halliburton Light + 8# salt/sx, 1/4#/sx Flocele & 5#/sx Gilsonite (water ratio 9.9 gals/sx, slurry Wt 12.7 PPG, slurry volume 1.92 FT3/sx), followed by 350 sxs class "C" Neat cement (water ratio 6.3 gals/sx, slurry Wt 12.7 PPG, slurry volume 1.32 FT3/sx). Cement volume based on 100% open hole excess. NU 5000# BOPs. Test rams to 5000#, Hydril 3500#, and casing to 1500#.

9-1/2" Hole to 12050' ± (1000' into Wolfcamp)
Drill 9-1/2" hole to 12050' ±. Log as per program. Run 7-5/8" 26.4# & 29.7# S-95, LT&C casing. Cement w/ 125 sxs Trinity Lite Wt, 0.5% CFR2, 0.25#/sx Flocele (water ratio 8.55 gals/sx, slurry Wt 12.44 PPG, slurry volume 1.57 FT3/sx), followed by 300 sxs class "H" w/ 0.5% CFR2 (water ratio 5.2 gals/sx, slurry Wt 15.6 PPG, slurry volume 1.18 FT3/sx). Cement volume based on 2000' of cement at 25% open hole excess. NU 5000# BOP. Press test rams to 5000#, Hydril 3500#, and casing 3000#. Install rotating head.

6-1/2" Hole to 14800' (200' ± into Lower Morrow)
Drill 6-1/2" hole to T.D. Run logs as per program. Run 5-1/2" 20#, S-95, liner from 11800 to 14800' and cement w/ 200 sxs "H" w/ 5% KCL, 0.6% CFR2, 0.6% Halad-22A + retarder as necessary (water ratio 5.2 gals/sx, slurry weight 15.6 ppg, slurry volume 1.18 FT3/sx). Cement volume based on 35% open hole excess.

Test top liner to 3000#. Squeeze top liner, if necessary, with class "H" mixed with fresh water plus retarder.

EXHIBIT G

MUD RECOMMENDATIONS				CASING	FORMATION TOPS
Depth ft	Mud Weight ppg	Viscosity sec/qt	API Filtrate ml		
0- 650	8.4-9.5	35-45	No Control	2000'	
Spud. Consisting of Del Gel, flocculated with lime. Use paper and cotton seed hulls to control seepage and loss circulation.					
650 - 4125	8.8-10	29-30	No Control	4000'	Deleware lime
Drill out with brine water treated with Ben-Ex and Drilling Detergent to prevent solids build up. Circulate controlled section of reserve pit. Use paper for seepage loss and also paper and Del-S-Gel to sweep hole. Maintain pH with Caustic Soda.				6000'	Cherry Canyon Brushy Canyon
4125 - 12,050	8.6-9.2	30-32	No Control	8000'	Bone Springs
Drill out with fresh water and circulate a controlled section of reserve pit. Use Ben-Ex and Drilling Detergent to prevent solids build up. Use paper to control seepage and also paper and Del-S-Gel to sweep hole. Use caustic for pH.				10000'	3rd. Bone Spring Wolfcamp
Note: Mud up usually not neccessary in this interval but if hole conditions warrant, it may be neccessary to mud up prior to running casing. If so, suggest mud up with Sea Mud/Del-S-Gel for viscosity of 32-34 and DRispac and Starlose for fluid loss of 10-15cc. Also should pressure be encountered prior to setting pipe, mud up with Del-S-Gel/Sea Mud and Drispac using Del Bar for weight material and return fluid to steel pits.				12000'	Strawn Atoka
12,050 - 14,800	10-12.7	34-36	5 cc	14000'	Morrow
Displace hole with 10 lb. brine and circulate thru steel pits. Add 3%-5% KCL and treat out hardness with Soda Ash. Mud up with Drispac (1 lb./bbl.) and Starlose (4 lb./bbl.) for base mud. When additional fluid density is required use Sea Mud (8 lb./bbl. ±) and Del-S-Gel (5-6 lb./bbl.) Use Del-Bar to raise weight as needed. Maintain pH with Caustic Soda and use Nut Plug or Mica for seepage control.				T.D. 14,800	

Indemnity Clause On Reverse Side

EXHIBIT H

AUXILIARY EQUIPMENT

DRAWWORKS

Emsco C-2 type III, 2000 HP
Grooved for 1-3/8" drill line
Parmac model 481 Hydromatic Brake

DERRICK

Ideco Fullview mast
143 ft. high
750,000 lb. static hook load

SUBSTRUCTURE

Ideco
24 ft. high
800,000 lb. casing capacity simultaneous with 400,000 lb. setback capacity

POWER SOURCE

3 - Caterpillar D-398 TA (diesel)
Horsepower - 2331

PUMPS

Emsco, model D-1000, 8" X 18", 1000 HP
National, 10P 130 triplex 1300 HP
High volume - low pressure mud mixing system

DRILL STRING

12,000 - 4-1/2" O.D., 16.6#/ft, Gr. E, 4-1/2" XH by 6" O.D. tool joints
Other grades of pipe available
Standard size collars available through 8"

PREVENTERS

1 - Hydril, model GK, 10" 5000 psi
1 - Cameron, model U-single, 1-Cameron, Model U-double, 11", 10,000 psi
1 - Payne Accumulator, 80 gallon capacity with 5 stations

OTHER EQUIPMENT

Crown block - Ideco, model 1024-2,500 ton capacity
Traveling block - Nationa, 450 ton capacity
Hood - Nationa, 450 ton capacity
Lightplants - 2, Capterpillar, 420 KW, 230/460 volts, A.C.
Swivel - Bethlehem, B-24
Mud tanks - three, 7' X 6' X 48'
Lights - Snelson, vapor proof
Desander - Thompson, 3 cone
Rotary table - Ideco, 27½"
Bunk house - 10' X 60', wheeled trailer
Shale shaker - Link Belt, model NRM-145
Radio - General Electric, 100 watt
Crown-O-Matic