Form 9-331C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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: Exxon Corporation

3. ADDRESS OF OPERATOR: P. O. Box 1600, Midland, Texas 79702

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FEB 2 1979
O. C. C.
ARTESIA, OFFICE

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1,880'FSL and 1,980'FEL of Section
At proposed prod. zone:

5. LEASE DESIGNATION AND SERIAL NO.: NM 9208-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---
7. UNIT AGREEMENT NAME: ---
8. FARM OR LEASE NAME: Morgan Federal
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 6, T10S, R30E
12. COUNTY OR PARISH: Chaves
13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 13.4 miles W-NW from Caprock

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any): 1,880' / 760'
16. NO. OF ACRES IN LEASE: 642.93
17. NO. OF ACRES ASSIGNED TO THIS WELL: 321.47
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: None
19. PROPOSED DEPTH: 10,200'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): Gr. 4,015'
22. APPROX. DATE WORK WILL START*: March 15, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	40#	1500	400 sx.
7 7/8"	5 1/2"	15.5-17#	10,000	500 sx.

Howco Method of cementing to be used.

Mud Program:
0-1500' Fresh Water Spud
1500-6000' Brine Water 10#
6000-T.D. Brine Water Mud 10-10.2#

Gas is not dedicated to a purchaser.

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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 Melba Knipling TITLE Proration Specialist DATE 1-18-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Exxon Lse. No. _____ NEW MEXICO OIL CONSERVATION COMMISSION

State Lse. No. _____ WELL . CATION AND ACREAGE DEDICATION P. T

Federal Lse. No. _____

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.
Exxon Corporation	Morgan Federal	1

Unit Letter	Section	Township	Range	County
I	6	10 South	30 East	Chaves

Actual Footage Location of Well:
1880 feet from the South line and 1980 feet from the East line

Ground Level Elev:	Producing Formation	Pool	Dedicated Acreage:
	Mississippian	Wildcat	321.47 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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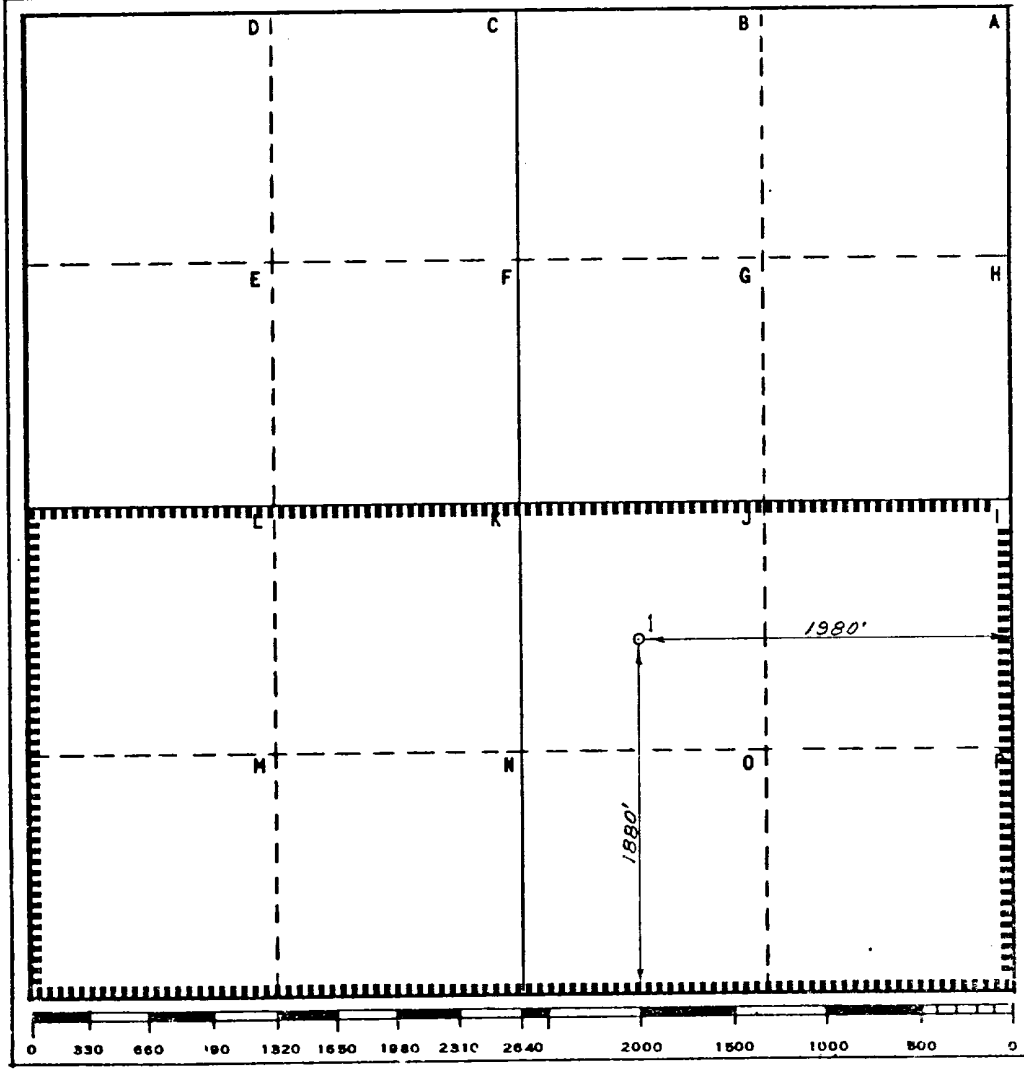
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO



CERTIFICATION

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

Name: Melba Knipling

Position: *Proration Specialist*

Company: Exxon Corporation

Box 1600 Midland, Texas

Date: 1-19-79

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: January 18, 1979

Registered Professional Engineer and/or Land Surveyor

Certificate No. 1382

13.4 Mile W-NW of Caprock New Mexico C.F. Sec. File No. W-A-7140

EXXON #1 MORGAN FEDERAL
SECTION 6, T10S, R30E, CHAVES COUNTY NEW MEXICO
USA NM 9208-A

1. The geologic name of the surface formation.

   Quaternary

2. The estimated tops of important geologic markers.

Rustler	870'
Yates	1440'
San Andres	2665'
Leonard	4125'
Abo	6525'
Wolfcamp	7340'
Canyon	8340'
Mississippian	9540'

3. The estimated depths at which anticipated water, oil or other mineral bearing formations are expected to be encountered.

Water	800'
Oil	7400'
Gas	9300'
	9600'

4. Proposed Casing Program:

String	Size/Weight/Grade	Condition	Depth Interval
Surface	9-5/8/40#/N-80	New	0-1500'
Production*	5-1/2/17#/L-80	New or 2nd Cl	0-1550
	5-1/2/17#/K-55	New or 2nd Cl	1550-3800
	5-1/2/15.5#/K-55	New or 2nd Cl	3800-9500
	5-1/2/17#/K-55	New or 2nd Cl	9500-10,000

*Casing string run will be at least as strong as string shown. Actual pipe run may be different depending on casing available at time.

5. Minimum specifications for pressure control equipment:

   a) Casinghead Equipment

   "A" Section: Flanged type 5000 psi
   W.P. for 9 5/8" X 5 1/2" casing program
   Tubinghead: Flanged type 5000 psi
   W.P. for 2 7/8" tubing.

b) Blowout Preventers

Refer to attached drawing and list of equipment, titled "Type II-C" for description of BOP stack and choke manifold.

c) BOP Control Unit

Unit will be hydraulically operated and have at least 3 control stations.

d) Testing

When installed on 9 5/8" casing the BOP stack will be tested at a low pressure (200-300 psi) and to at least 1000 psi. At approximately weekly intervals, the stack will be tested to 1000 psi. An operational test of the BOPs is to be performed on each round trip (but not more than once each day); the annular and piperam preventer will be closed on drill pipe, and the blind rams will be closed while pipe is out of the stack.

6. Type and anticipated characteristics of Drilling Fluid:

Depth Interval Ft.	Mud Type	Weight ppg	Funnel Visc Sec/Qt	PV CP	WL (cc)	Solids %	YP #/100 Ft^2	pH
0-1500	Fresh	Spud Mud	--	--	--	----	------	-
1500-6000	Brine	10.0	28	--	--	----	------	10.5
6000-TD	Brine Mud	10-10.2	30-50	--	20-10	----	10-30	10.5

Mud weight and viscosity will be maintained at levels compatible with operating conditions. Not less than 200 barrels of fluid will be in the pits and adequate barite for weight control will be stocked on location.

7. Auxiliary Control Equipment:

a) Kelly Cocks: Upper and Lower installed on kelly.

b) Safety Valve: Full-opening ball-type to fit each type and size of drill pipe in use available on rig floor, in open position for stabbing into drill pipe when kelly is not in string.

c) Pit volume totalizer to monitor mud pits - 1500' to T.D.

d) Trip tank to insure that hole is full and takes proper amount of fluid on trips - 1500' to T.D.

e) A float at the bit will not be used unless conditions dictate.

8. The testing and logging program to be followed:

0-1500'	Log Gamma Ray
1500-10,000'	Log Gamma Ray,Caliper - FDC-CNL and DLL
9500'	DST Hydrocarbon shows

9. No abnormal pressures or temperatures or H_2S hazards are anticipated.

10. It is anticipated that the drilling operations will begin on March 15, 1979 and be completed in about 80 days.

MK/hd
1-17-79

BLOWOUT PREVENTER SPECIFICATION
EQUIPMENT DESCRIPTION

TYPE II-C

All equipment should be at least 2000 psi WP or higher unless otherwise specified.

1. Bell nipple.
2. Hydril or Shaffer bag type preventer.
3. Ram type pressure operated blowout preventer with blind rams.
4. Flanged spool with one 4-inch and one 2-inch (minimum) outlet.
5. 2-inch (minimum) flanged plug or gate valve.
6. 2-inch by 2-inch by 2-inch (minimum) flanged tee.
7. ~~4-inch pressure operated gate valve.~~
8. 4-inch flanged gate or plug valve.
9. Ram type pressure operated blowout preventer with pipe rams.
10. Flanged type casing head with one side outlet (furnished by Exxon).
11. 2-inch threaded (or flanged) plug or gate valve (furnished by Exxon). Flanged on 5000# WP, threaded on 3000# WP or less.
12. Needle valve (furnished by Exxon).
13. 2-inch nipple (furnished by Exxon).
14. Tapped bull plug (furnished by Exxon).
15. 4-inch flanged spacer spool.
16. 4-inch by 2-inch by 2-inch by 2-inch flanged cross.
17. 2-inch flanged plug or gate valve.
18. 2-inch flanged adjustable choke.
19. 2-inch threaded flange.
20. 2-inch XXH nipple.
21. 2-inch forged steel 90° Ell.
22. Cameron (or equal.) threaded pressure gage.
23. Threaded flange.

35. 2-inch flanged tee.
36. 3-inch (minimum) hose. (Furnished by Exxon).
37. Trip tank. (Furnished by Exxon).
38. 2-inch flanged plug or gate valve.
39. 2-1/2-inch pipe, 300' to pit, anchored.
40. 2-1/2-inch SE valve.
41. 2-1/2-inch line to steel pit or separator.

NOTES:

1. Items 3, 4 and 9 may be replaced with double ram type preventer with side outlets between the rams.

2. The two valves next to the stack on the fill and kill line to be closed unless drill string is being pulled.

3. Kill line is for emergency use only. This connection shall not be used for filling.

4. Replacement pipe rams and blind rams shall be on location at all times.

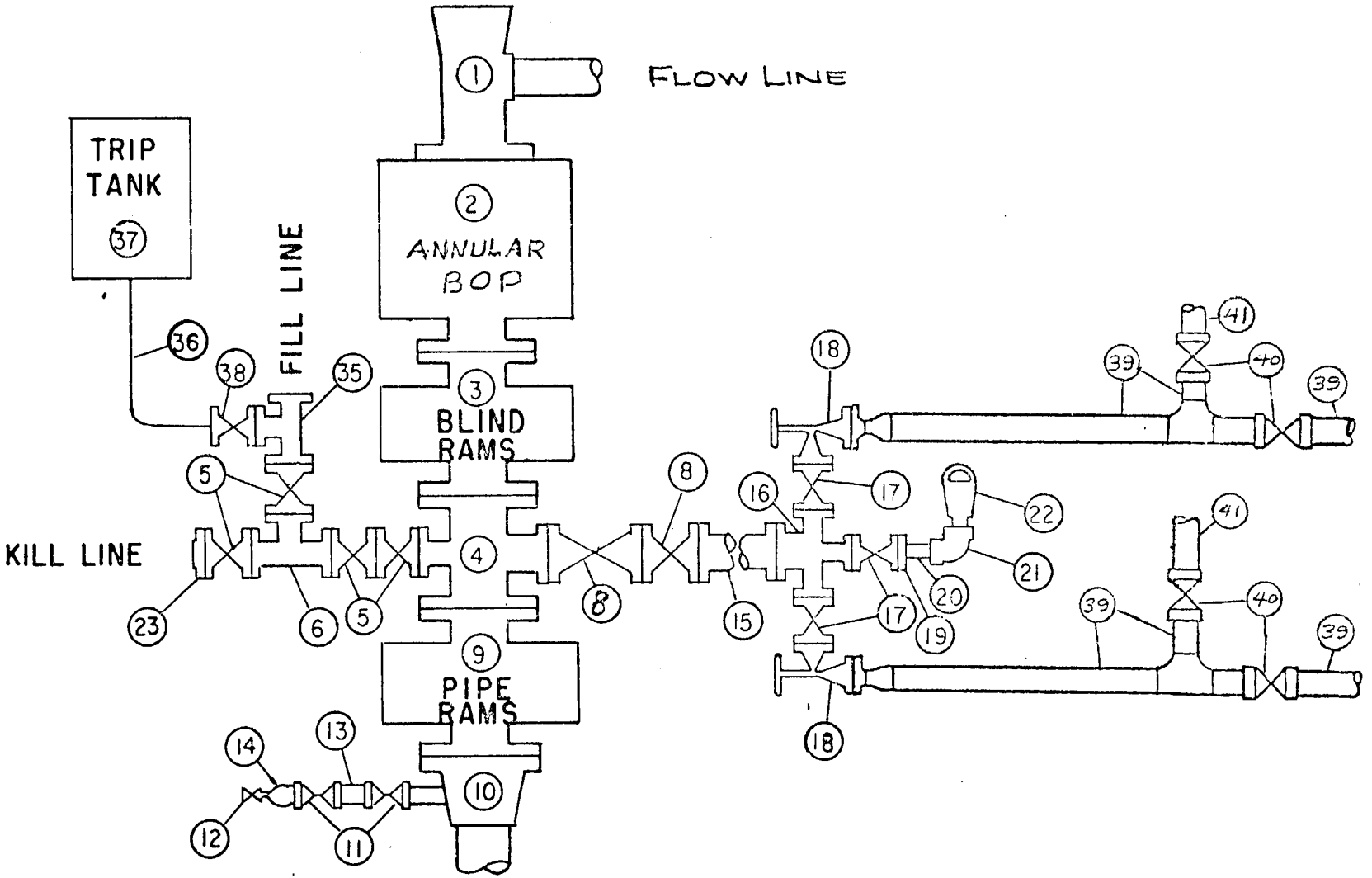
5. Only type U, LWS and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.

6. Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.

MIDLAND DRILLING ORGANIZATION

BLOWOUT PREVENTER SPECIFICATION

TYPE II - C



9/15/73

SURFACE USE PLAN

Exxon Corporation-Exploratory Wells

#1 Morgan Federal-1,980'FEL & 1,880'FSL of Section 6
#2 Morgan Federal-1,980'FWL & 990'FNL of Section 6
T10S, R30E, Chaves County, New Mexico
Lease No. NM 9208-A

1. EXISTING ROADS - Detailed map showing drillsite location in relation to a town or known point and all existing roads within three miles of the drillsite are shown on Exhibits "A" and "B".

   From Roswell, go easterly on Highway 380 approximately 33 miles, turn north 3 miles to pipe line road running northwesterly and turn on pipe line road approximately 2 miles to drillsites.

2. PLANNED ROADS - It is planned to construct approximately 200' of new road to serve Morgan Federal #1 and approximately 1,400' of new road to serve Morgan Federal #2 as shown on Exhibit "A". The existing access road along the El Paso Pipe Line right-of-way will be improved by grading and adding caliche where necessary. Caliche will be hauled over existing roads from a pit in the SW/4 of Section 32 approximately 1 mile north of the locations as shown on Exhibit "A".

   1) Width of the new road to be constructed will be approximately 12 feet.

   2) No grade change will be made in any part of the existing access road or the new road to be constructed in excess of 5 percent.

   3) No turnouts will be necessary.

   4) No special drainage features will be necessary.

   5) No culverts will be required.

   6) Caliche will be used only on a portion of the road.

   7) No new cattleguards will be required. Two existing cattle guards on the existing pipe line road will be widened.

   8) The proposed new road is center-line flagged.

3. LOCATION OF EXISTING WELLS WITHIN TWO MILE RADIUS -

   1) Water wells - There are no water wells within 2 miles of the drillsites.

   2) Abandoned wells - Several dry holes are shown on Exhibit "D" within 2 miles of drillsite.

3) Temporarily abandoned wells - None

4) Disposal wells - None

5) Drilling wells - None

6) Producing wells - Shown on Exhibit "D"

7) Shut-In wells - None

8) Injection wells - None

9) Monitoring or observation wells for other resources - None

4. TANK BATTERIES, PRODUCTION FACILITIES AND LEASE PIPELINES -

A. Exxon has storage facilities at Isler Federal #1 located in the NE/4 of the NE/4 of Section 31 and New Mexico CR State #1 located in the SW/4 of the NW/4 of Section 32. These facilities lie approximately 1 mile NNE of the proposed Morgan Federal drillsites.

B. In the event of production, new facilities are shown on Exhibit "B".

1) Proposed location and attendant lines by flagging if off of well pad.

2) Dimensions of facilities are shown on Exhibit "B".

3) Production facilities will be constructed on drillsite pad using caliche surface.

4) Equipment and pit will be fenced and flagged to protect livestock and wildlife, if necessary.

C. Rehabilitation will be done on any disturbed areas no longer needed for operations after completion of the production facilities. This will consist of reshaping the existing surface and seeding as specified.

5. LOCATION AND TYPE OF WATER SUPPLY -

A. Water will be hauled from an existing source off the lease. Brine water will be hauled by truck from a source outside the area.

B. Water will be hauled over existing roads.

C. No water well will be drilled.

6. SOURCE OF CONSTRUCTION MATERIALS -

A. Caliche will be obtained from a pit northeast of the drillsite as shown on Exhibit "A".

B. No construction materials will be used from Federal lands.

C. Caliche secured from private sources will be used where needed on the road and drillsite.

D. All access roads are shown on Exhibit "A".

7. WASTE DISPOSAL -

A. Drill cuttings will be disposed of in the reserve pit.

B. Drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry.

C. Trash, waste paper, garbage and junk will be burned or buried with a minimum of 24" cover. Waste material will be contained to prevent scattering by wind prior to ultimate disposal.

D. Any produced water will be contained in tanks and be disposed of in an approved manner. Oil produced will be stored in tanks until sold, at which time it will be hauled from location.

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

F. If productive, maintenance waste will be placed in special containers and buried or hauled away periodically.

8. ANCILIARY FACILITIES - No camps, airstrips, et cetera, will be constructed.

9. WELL SITE LAYOUT -

A. Refer to Exhibit "B" for well site layout.

B. Dimensions may vary slightly depending on size of drilling rig available.

C. Terrain at the well site is very flat as shown on Exhibit "B".

D. The pad will be topped with material obtained from the reserve pit or material hauled in from private property over the access road.

E. The reserve pit will be approximately 150' X 150' top width.

10. RESTORATION OF SURFACE -

1) At the time of completion and abandonment of the well, the pits will be backfilled and the entire disturbed area will be sloped to coincide with the adjacent undisturbed area. The top soil will be distributed over the entire disturbed area. Prior to leaving the drillsite upon rig move out and before reshaping any pit that is to remain open for drying will be fenced until backfilling and reshaping can be done.

2) When well is abandoned the new road will be rehabilitated as per BLM recommendations.

3) Any rehabilitation of the drill pad will comply with BLM specifications.

4) Any oil on pits will be removed or otherwise disposed of to USGS and BLM approval.

5) Rehabilitation operations will be completed as soon as practical after abandonment of the well and no later than the Fall after abandonment.

11. OTHER INFORMATION -

A. Terrain - Flat prairie.

B. Soil - Sandy.

C. Sparse vegetation - Mesquite and some native grasses.

D. There are no buildings, ponds, water wells, archeological, historical or cultural sites in the immediate area.

E. Surface use is grazing.

F. Effect on Environment - Drillsite, which is in nearly flat semi-arid, desert country, is in a low environmental risk area. The total effect of drilling and producing in this area would be minimal. No known archeological, historical, or cultural sites exist in the drill or road areas.

G. Surface ownership - the drillsite and new access road is located on lands owned by U.S.A.

H. Open Pits - All unattended pits containing mud or other liquids will be fenced.

I. Well sign - Sign identifying and locating well will be maintained at drillsite commencing with the spudding of the well.

12. OPERATOR'S REPRESENTATIVE - Field representative who can be contacted concerning compliance of this Surface Use Plan is:

W. R. Wardroup
P. O. Box 1600
Midland, TX 79702
Office Phone: (915) 683-0263
Home Phone: (915) 694-5067

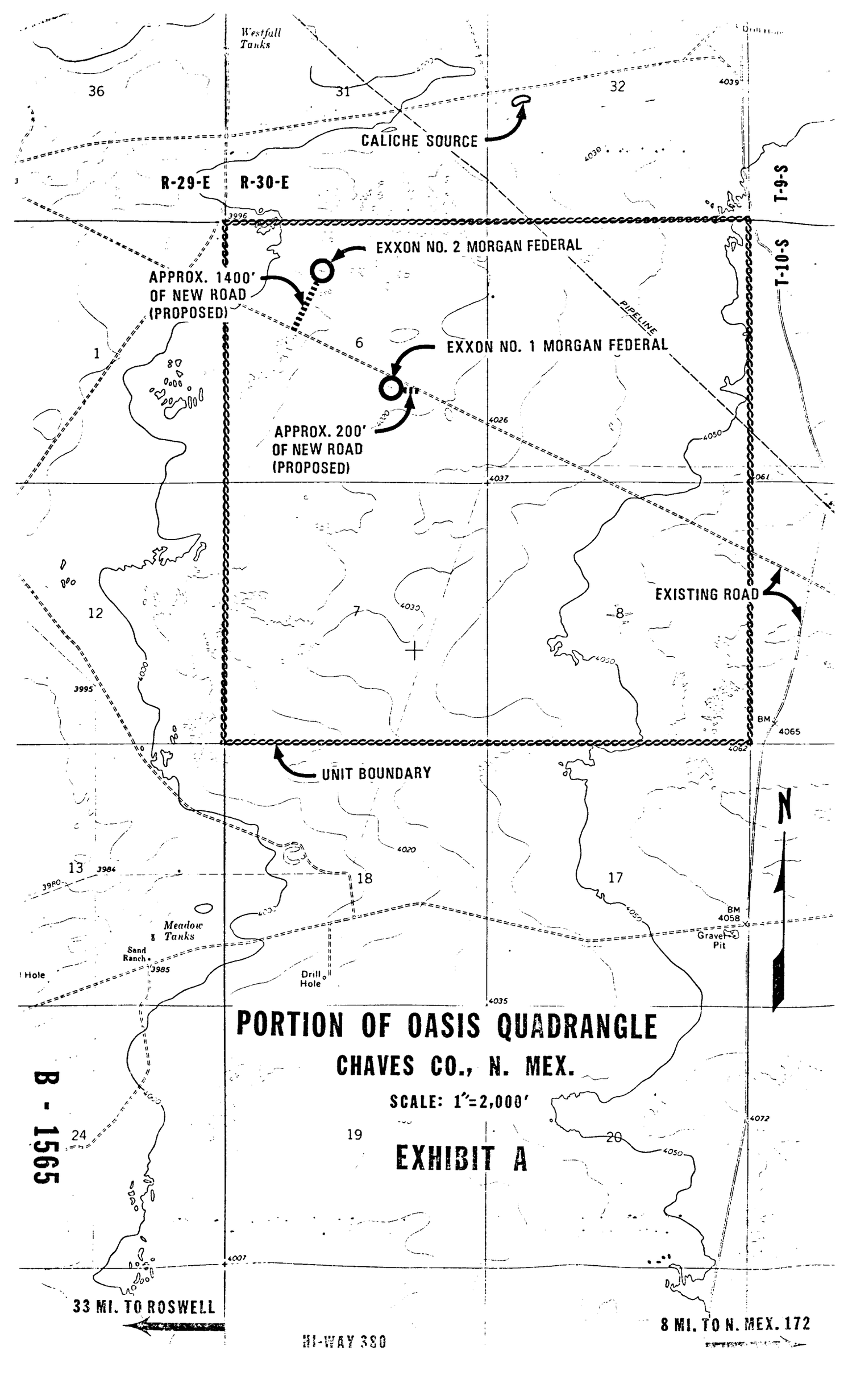
13. CERTIFICATION - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that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

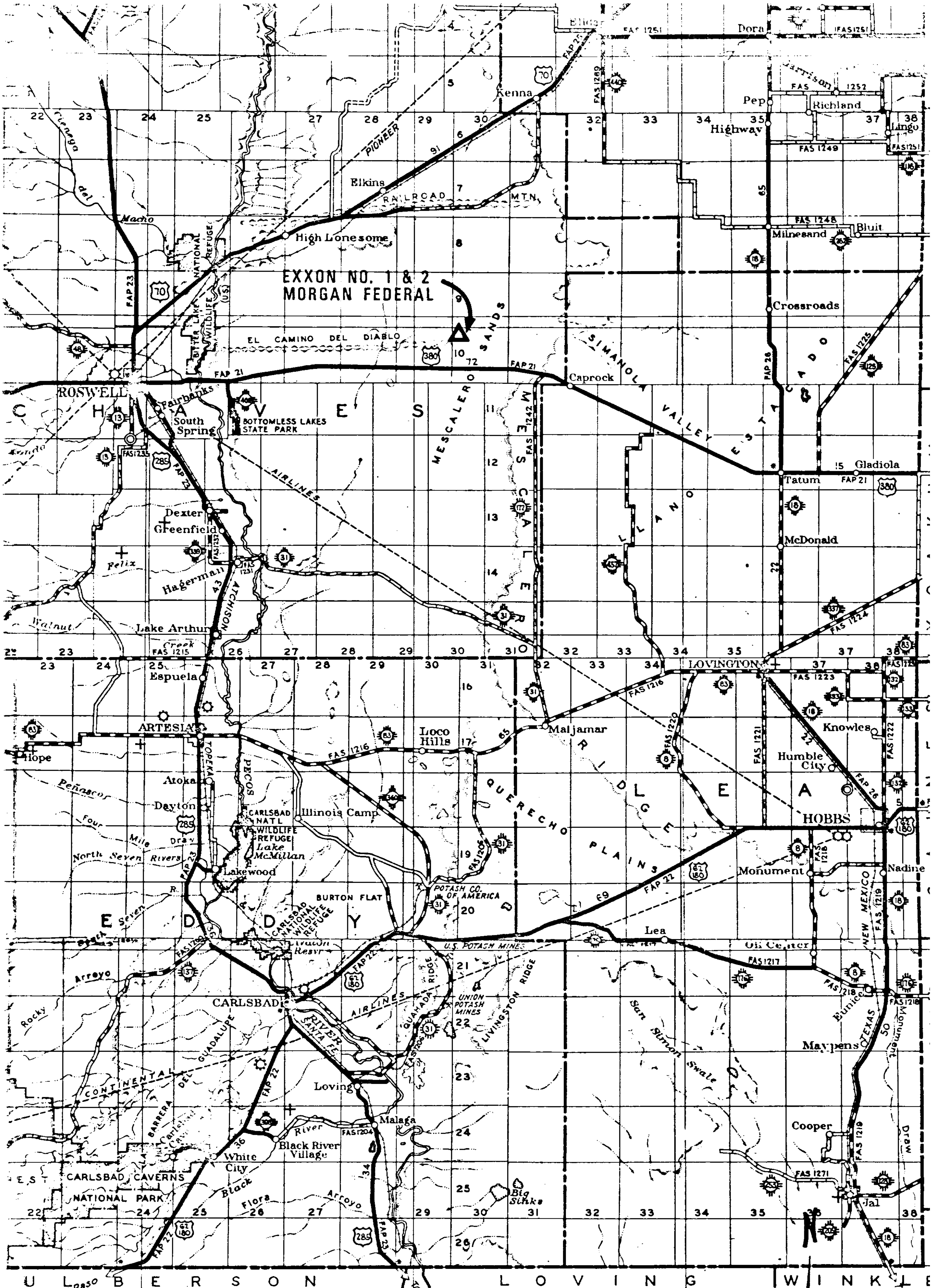
of this plan will be posted at the well site during the drilling of the well for reference by all contractors and subcontractors.

Date 1-18-79

W. R. Wardroup
Division Drilling Manager

MK/hd


Westfall Tanks
CALICHE SOURCE
R-29-E
R-30-E
T-9-S
T-10-S
EXXON NO. 2 MORGAN FEDERAL
APPROX. 1400' OF NEW ROAD (PROPOSED)
PIPELINE
EXXON NO. 1 MORGAN FEDERAL
APPROX. 200' OF NEW ROAD (PROPOSED)
EXISTING ROAD
UNIT BOUNDARY
N
Meadow Tanks
Sand Ranch
Drill Hole
Gravel Pit
BM 4065
BM 4058
PORTION OF OASIS QUADRANGLE
CHAVES CO., N. MEX.
SCALE: 1"=2,000'
EXHIBIT A
B - 1565
33 MI. TO ROSWELL
8 MI. TO N. MEX. 172
HI-WAY 380



EXXON'S MORGAN FEDERAL # 1 & 2

CHAVES CO., N. MEX.

SEC. 6

R-30-E & T-10-S

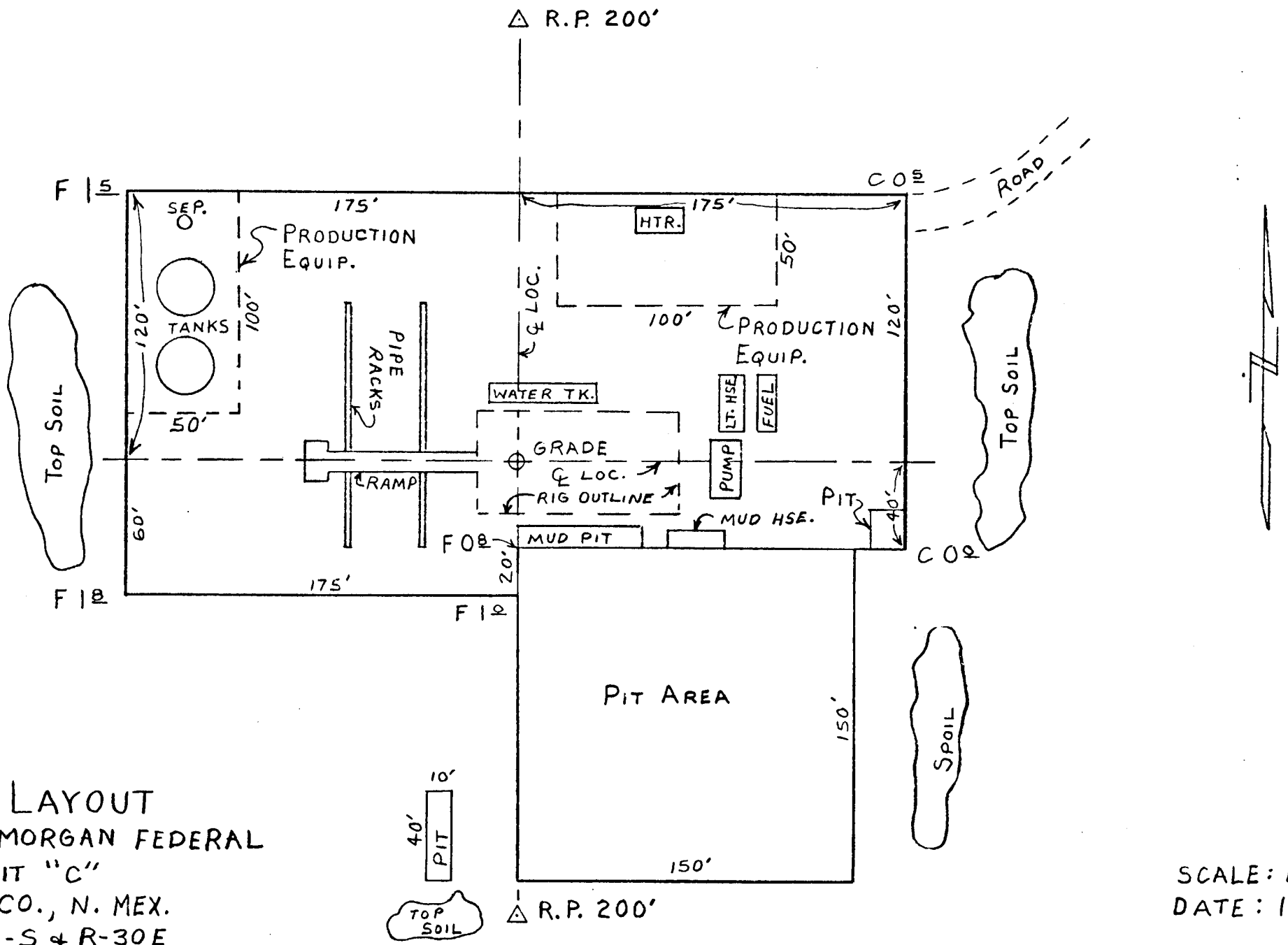
SCALE:

1" =12 MI.

DATE: 1-17-79

EXHIBIT B

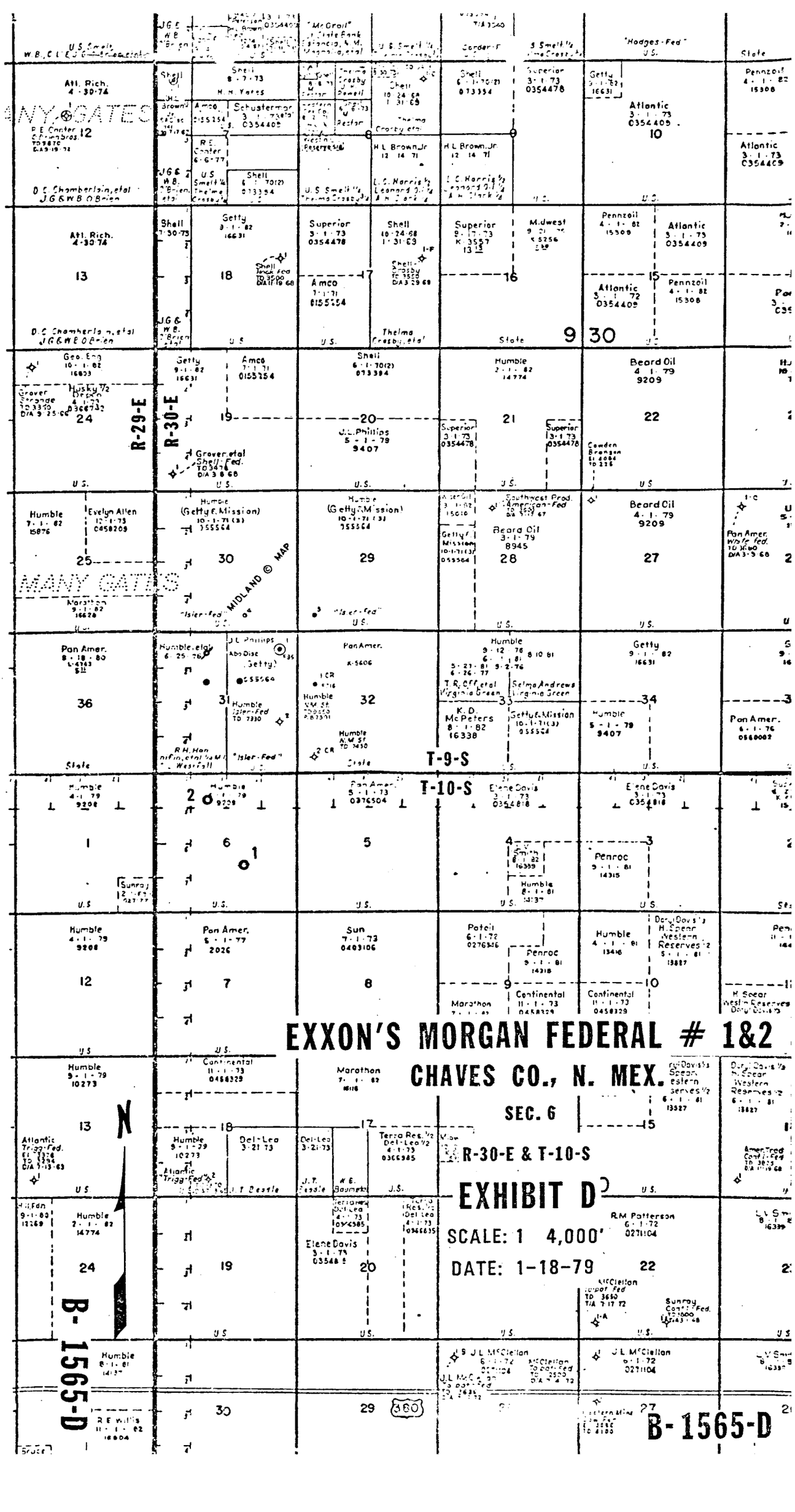
R- 1565-A



ITE LAYOUT
. 1 MORGAN FEDERAL
(HIBIT "C"
/ES CO., N. MEX.
T-10-S & R-30E

SCALE: 1"=60'
DATE: 1-17-79

B- 1565-C


EXXON'S MORGAN FEDERAL # 1&2
CHAVES CO., N. MEX.
SEC. 6
R-30-E & T-10-S
EXHIBIT D
SCALE: 1 4,000'
DATE: 1-18-79
N
B-1565-D
B-1565-D
R-30-E
R-29-E
T-9-S
T-10-S
MIDLAND © MAP
MANY GATES
MANY GATES
Att. Rich. 4-30-74
Shell 8-7-73 H.H. Yates
Amco 0155354
Schustermar 3-1-73 0354409
Superior 3-1-73 0354478
Getty 9-1-82 16631
Atlantic 3-1-73 0354409
Pennzoil 4-1-82 15308
Shell 6-1-70(2) 013354
Shell 10-24-68 1-31-69
H.L. Brown Jr 12-14-71
Shell 10-30-73
Shell Tenneco Fed TD 3500 D/A 11-19-68
Shell Crosby Fed TD 3520 D/A 3-29-69
Superior 9-1-73 K-3527 13 15
Midwest 9-21-73 K-5256 5-29
Pennzoil 4-1-82 15309
Atlantic 3-1-72 0354409
Geo. Eng 10-1-82 16603
Husky 1/2 Dreco 4-1-73 0366732
Grover Strange TD 3370 D/A 9-25-68
Getty 9-1-82 16631
Amco 7-1-71 0155354
Grover et al Shell Fed. TD 3471 D/A 3-8-68
Shell 6-1-70(2) 013394
J.L. Phillips 5-1-79 9407
Humble 2-1-82 14774
Beard Oil 4-1-79 9209
Camden Branson St 4084 TD 3215
Humble 7-1-82 15876
Evelyn Allen 12-1-73 0458209
Humble (Getty & Mission) 10-1-71(3) 055564
Humble (Getty & Mission) 10-1-71(3) 055564
Amerada 3-1-82 15010
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Beard Oil 3-1-79 8945
Southwest Prod. American Fed TD 3550 D/A 5-17-67
Beard Oil 4-1-79 9209
Pan Amer. Wolfe Fed. TD 3590 D/A 3-9-68
Marathon 9-1-82 16628
Pan Amer. 8-18-80 L-4743 5 11
Humble, et al 6-25-76
J.L. Phillips Abo Disc (Getty) 035564
Humble Isler Fed TD 7330
R.H. Hanahan, et al 1/4 M.L. Westfall
Isler-Fed
Pan Amer. K-5606
Humble N.M. St. TD 7430
Humble 9-12-76 6-1-81 8 10 81 5-27-81 9-2-76 6-26-77
T.R. Off et al Virginia Green
Selma Andrews Virginia Green
K.D. McPeters 8-1-82 16338
Getty & Mission 10-1-71(3) 055564
Getty 9-1-82 16631
Humble 5-1-79 9407
Pan Amer. 6-1-76 0560002
Humble 4-1-79 9208
Humble 4-1-79 9209
Pan Amer. 5-1-73 0376504
Elene Davis 3-1-73 0354818
Elene Davis 3-1-73 0354818
Sunray 2-1-82 16277
Penroc 9-1-81 14315
Humble 8-1-81
Humble 4-1-79 9208
Pan Amer. 5-1-77 2026
Sun 7-1-73 0403106
Petco 6-1-72 0276346
Penroc 9-1-81 14218
Humble 4-1-81 13416
Davis & Spear Western Reserves 1/2 5-1-81 13827
Marathon 7-1-82
Continental 11-1-73 0458329
Continental 11-1-73 0458329
Humble 5-1-79 10273
Continental 11-1-73 0458329
Marathon 7-1-82
Atlantic Trigg-Fed. TD 3326 D/A 7-13-68
Humble 5-1-79 10273
Del-Lea 3-21-73
Del-Lea 3-21-73
Terra Res. 1/2 Del-Lea 1/2 4-1-73 0366985
Davis & Spear Western Reserves 1/2 6-1-81 13827
Amer. Trad. Conti-Fed TD 3825 D/A 11-19-68
H.L. Fan 9-1-80 12269
Humble 2-1-82 14774
Del-Lea 4-1-73 0366585
Elene Davis 3-1-73 0354818
R.M. Patterson 6-1-72 0271104
L.V. Sm 8-1-82 16339
Humble 8-1-81
McClellan Copper Fed TD 3650 T/A 7-17-72
Sunray Conti-Fed TD 3600 D/A 3-3-68
J.L. McClellan 6-1-72 0271104
J.L. McClellan 6-1-72 0271104
McClellan TD 2550 D/A 7-4-72
J.L. McClellan 6-1-72 0271104
R.E. Willis 11-1-82 16604
460
Western Mine Copper Fed TD 4180