

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

Gifford, Mitchell & Wisenbaker

3. ADDRESS OF OPERATOR

1280 Midland National Bank Tower Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1980' FNL & 660' FEL of Section

At proposed prod. zone

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

6 miles Southwest of Jal, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

640

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

N/A

19. PROPOSED DEPTH

3300'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

GR = 3024'

22. APPROX. DATE WORK WILL START*

June 28, 1978

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#	1400'	750 sacks
7 7/8"	5 1/2"	14#	3300'	450 sacks

SEE ATTACHED FOR
CONDITIONS OF APPROVAL"APPROVAL TO FLARE GRANTED
WHILE DRILLING AND TESTING."Unless Drilling Operations have
Commenced, this drilling approvalExpires ~~June 30, 1978~~
June 30, 1978

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

TITLE

Production Clerk

DATE

(This space for Federal or State office use)

PERMIT NO.

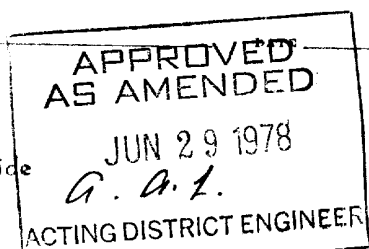
APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

*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.

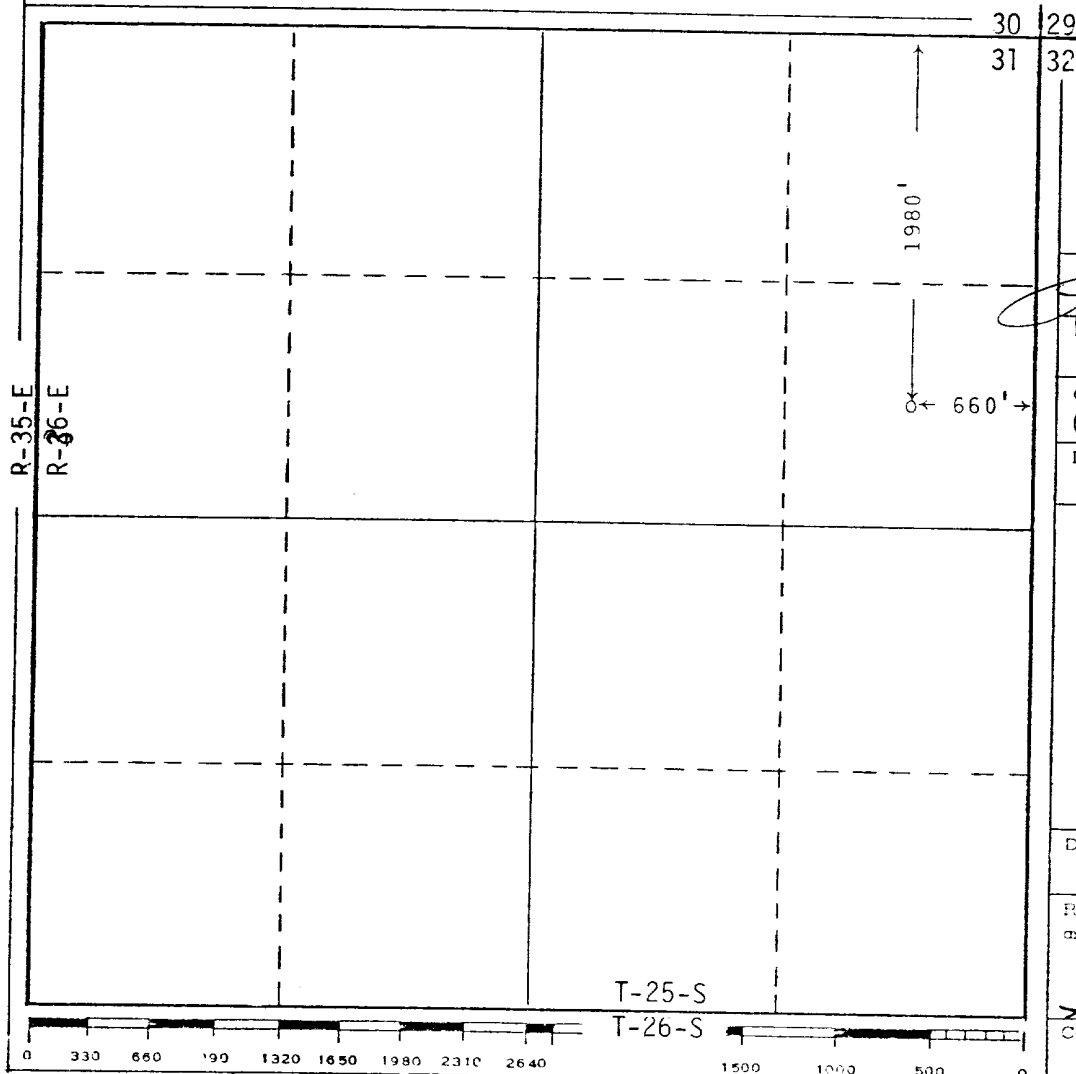
Operator GIFFORD, MITCHELL & WISENBAKER		Lessee Spotted Tail, Federal		Well No. 1
Unit Letter H	Section 31	Township 35 South	Range 36 East	County Lea
Actual Footage Location of Well: 1980 feet from the north line and 660 feet from the east line				
Ground Level Elev: 3024'	Producing Formation Yates	Pool Wildcat	Dedicated 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 _____

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

Position

Production Clerk

Company

Gifford, Mitchell & Wisenbaker

Date

6/22/78

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.

June 21, 1978

Date Surveyed

Gary N. Haner

Registered Professional Engineer and/or Land Surveyor

Certificate No.

5657

GIFFORD, MITCHELL & WISENBAKER
#1 STANDING BEAR FEDERAL and
#1 SPOTTED TAIL FEDERAL

1. Geologic name of the surface formation.

Quaternary Alluvium

2. Estimated tops of important geologic markers.

Rustler	1,000'
Salado	1,600'
Tansill	3,150'
Yates	3,350'

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

Water - Ground water anticipated 200 - 300'
Oil - 3,250'

4. Proposed Casing Program:

<u>String</u>	<u>Size, Weight, Grade</u>	<u>Minimum Condition</u>	<u>Depth Interval</u>
Surface	8-5/8" /24/ H-40	Class II	0-1400'
Production	5 1/2" /14 /H-40	Class II	0-3300'

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

5. Minimum specifications for pressure control equipment:

a) Casinghead Equipment

Casinghead: 8-5/8" STC x 4-1/2" 2000 psi WP screwed
Tubinghead: 4-1/2" x 2-3/8" 2000 psi screwed
Tree: 2-3/8" 2000 psi WP screwed

b) Blowout Preventers

Refer to attached drawing. The BOP will be installed after the 8-5/8 surface casing is set and will be no smaller than 10" API nor less than 2000 psi WP.

c) BOP Control Unit

Remotely located, hydraulically operated.

d) Testing

When installed on the 8-5/8" casing, the BOP will be tested to a low pressure (200-300 psi) and to at least 1500 psi. Thereafter, it will

be tested approximately weekly to 1500 psi. An operational test of the BOP will be performed each round trip but no more than once a day. The pipe ram will be closed around the drill pipe, and the blind rams will be closed while the pipe is out of the hole.

6. Type and anticipated characteristics of drilling fluid:

Surface hole will be drilled with a minimum weight fresh water spud mud compatible with operating conditions.

Production hole will be drilled with brine water. Depending on hole conditions and DST and core requirements, the system may be mudded up as follows:

Type: Saturated Brine
Weight: 9-10 ppg
Funnel Viscosity: 28-35 sec.
Water Loss: 10-30 cc.
Solids: Minimum
pH: 10.5+

Not less than 75 barrels of fluid will be in the pits.

7. Auxiliary Control Equipment:

- a) Lower Kelly Cock
- b) Full opening ball type safety valve to fit each size of drill pipe on the rig floor on trips.

8. Testing, logging, and coring program to be followed:

0 - T.D.: Gamma Ray, Sonic, FDC-CNL, and DLL or DIL
3250-3350: Possible 2DST's depending on shows
3250-3300: Approximate 50' core in pay zone

9. No abnormal temperatures or pressures are anticipated. The pressure can be controlled by the hydrostatic head of drilling fluid in the hole. Hydrogen sulfide gas is expected to be minimal.
10. It is anticipated that the drilling operations will begin

SURFACE USE PLAN

Gifford, Mitchell & Wisenbaker - Exploratory Wells

No. 1 Standing Bear Federal - Lease No. M.N. 6727 - 660' FNL and 660' FWL of Section 5, 26S, 36E
No. 1 Spotted Tail Federal - Lease No. N.M. 10195 - 1,980' FNL and 660' FEL, Section 31, 25S, 36E
Lea County, New Mexico

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 Exhibit "A".

From Jal, go southwesterly on paved road 3 miles to Bennett; continue on improved road approximately 1-1/2 miles to a graded road going westerly. Proceed westerly on graded road 4 miles, then Northerly 1 mile to drillsites.

2. PLANNED ROADS - It is planned to construct approximately 9,000' of new road as shown on Exhibit "A" of which 4,500' will serve Standing Bear Federal #1 and 4,500' will serve Spotted Tail Federal #1. The existing access road will be improved by grading, widening and adding caliche where necessary. Caliche will be hauled from a pit near the Anthony ranch house located on private lands.

- 1). Width of the new road to be constructed will be approximately 16 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 cattleguards will be required.
- 8) The proposed new road is center-line flagged.

3. LOCATION OF EXISTING WELLS WITHIN TWO MILE RADIUS -

- 1) Water wells - There are windmills located approximately one mile northeast of each drillsite and a water well at the Anthony ranch house approximately 2 miles southeast of the drillsite.
- 2) Abandoned wells - Several dry holes are shown on Exhibit "A" within 2 miles of drillsite.

- 3) Temporarily abandoned wells - None
 - 4) Disposal wells - None
 - 5) Drilling wells - There is a well currently drilling approximately 3/4 of a mile South of the Standing Bear proposed location.
 - 6) Producing wells - None
 - 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. There are no tank batteries, production facilities or pipelines within one mile of the location controlled by lessee.
 - 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 shown on Exhibit "B".
 - 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 pumped or hauled from an existing water well located approximately 2 miles southeast of drillsite at the Anthony Ranch. In the event brine water is used, it will be hauled by truck from a source outside the area. In the event water is pumped, the pipeline will be laid on the surface of the ground along the access road to the drillsite.
 - B. The pipeline is shown on Exhibit "A" from the water source to the drillsite.
 - C. No water well will be drilled.
6. SOURCE OF CONSTRUCTION MATERIALS -
- A. Caliche will be obtained from a privately owned pit northeast of the Anthony ranch house as shown on Exhibit "A".

- B. No construction materials will be used from Federal or Indian 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 traversed by the access road.
- E. The reserve pit will be approximately 125' 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 private lands owned by Frank Anthony.
- 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:

Jim Salners
1280 Midland National Bank Tower
Midland, TX 79701
Office Phone: (915) 682-6282
Home Phone: (915) 683-8927

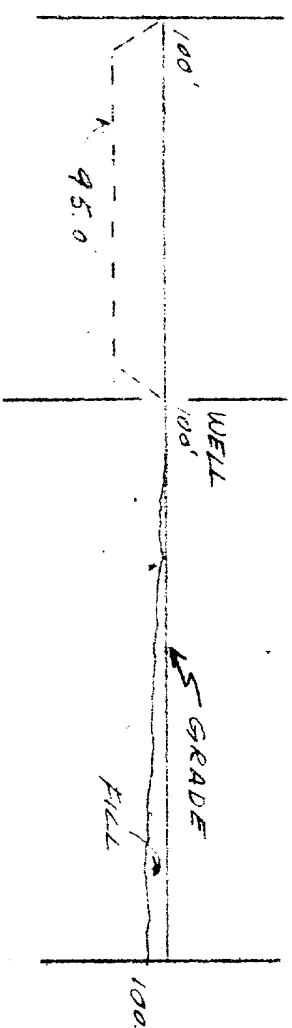
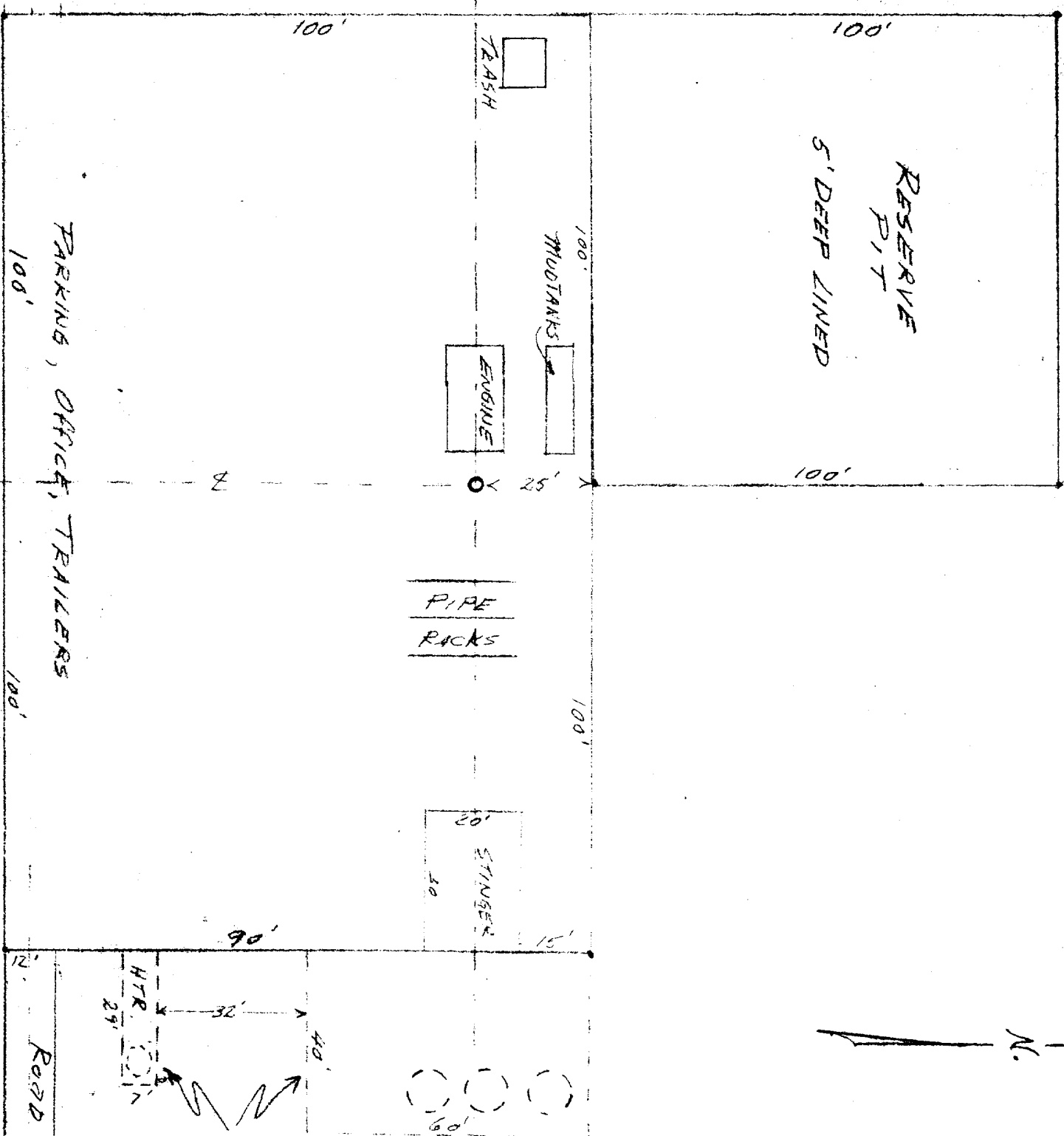
13. CERTIFICATION - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that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

Gifford, Mitchell & Wisenbaker 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.

GIFFORD, MITCHELL & WISENBAKER

Date 6/21/78By 
Joe N. Gifford

EXHIBIT "B"



CROSS SECTION SCALE
 HORIZ 1"=50'
 VERT 1"=20'

SITE SCALE 1"=30'

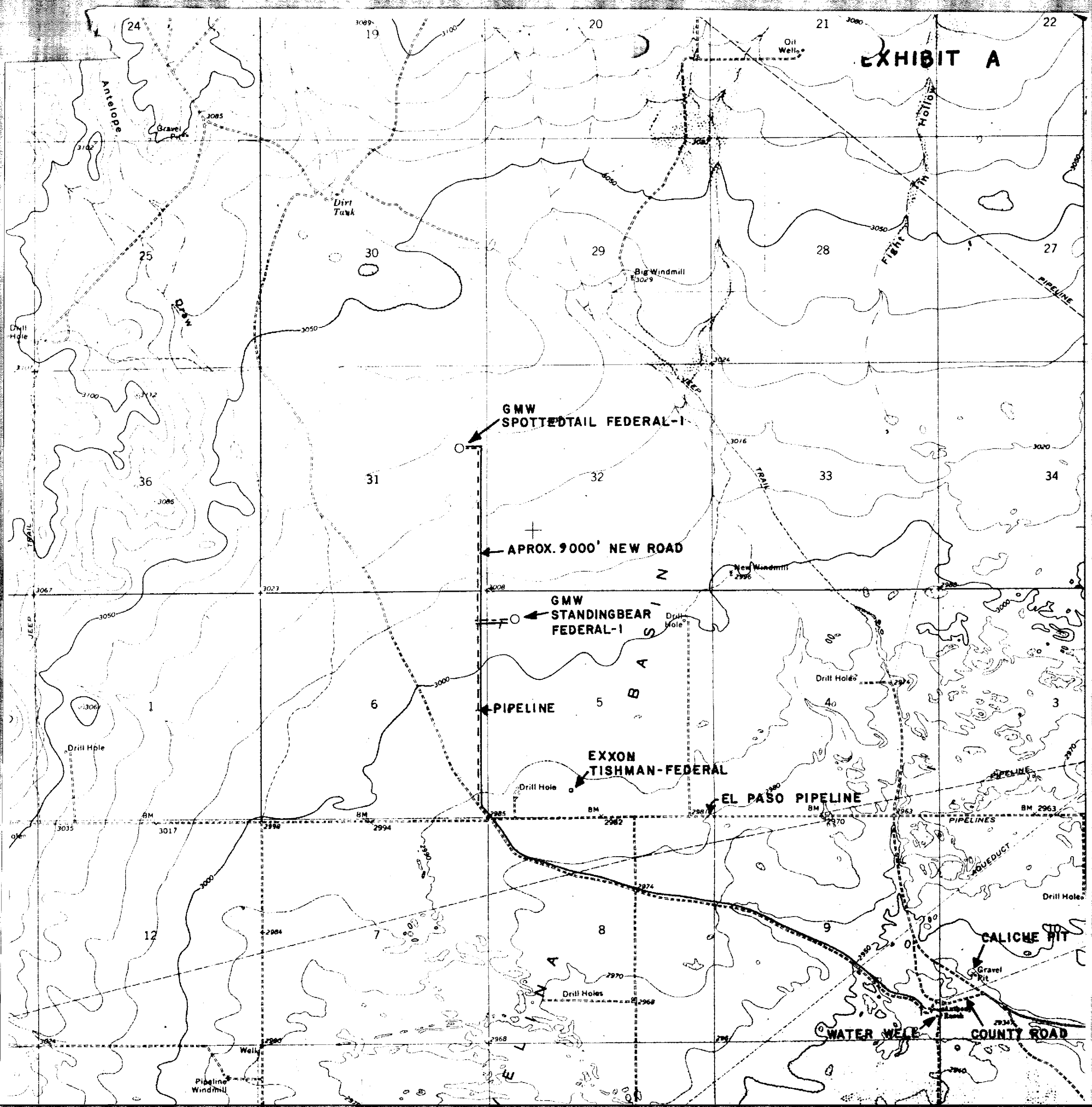
LOCATION SITE SURVEY

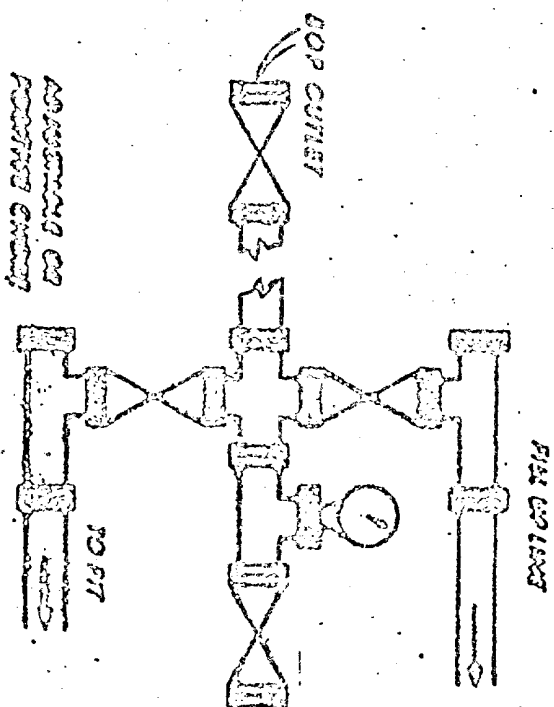
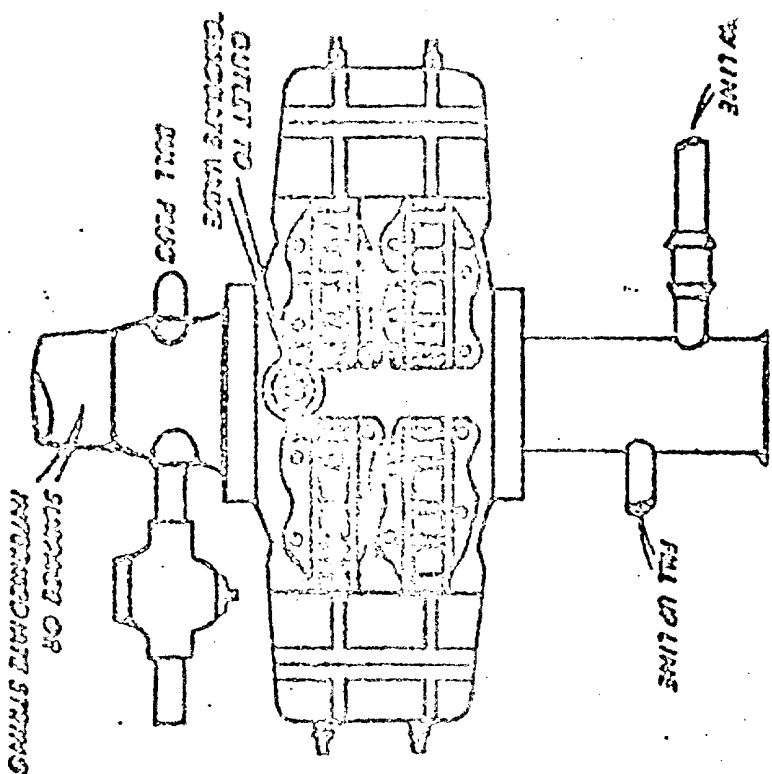
GMU-5 FETTERTAIL

FEDERAL-1 SEC. 31, T. 25S, R. 36E,

LEA Co. NEW MEXICO

EXHIBIT A





1. DOP VALVES AND ALL WORKING FITTINGS SHOULD BE IN GOOD WORKING CONDITION.
2. ALL EOLTS TO BE INSTALLED AND TIGHT.
3. ALL VALVES TO BE 3000 P.S.I. OR BETTER.
4. AFTER NIPPLING UP TEST RAMS AND PRESSURE UP TO 1500 PSI FOR 15 MINUTES AND CHECK FOR POSSIBLE LEAKS.
5. ALL CREW MEMBERS TO BE FAMILIAR WITH DOP AND ACCUMULATORS.
6. KEEP HOLE FULL ON TRIPS.
7. USE ONLY FLANGE TYPE FITTINGS.
8. RECHECK EOLTS FOR TIGHTNESS BEFORE 5000 FT. OR ENTERING PRODUCTION ZONES.
9. WHEN DRILLING USE:
TOP PREVENTER - DRILL PIPE RAMS
BOTTOM PREVENTER - DRILL PIPE RAMS
10. WHEN RUNNING CASING USE:
TOP PREVENTER - CASING RAMS
BOTTOM PREVENTER - CASING RAMS

U. S. Geological Survey

HOBBS DISTRICT

Gifford, Mitchell & Wisenbaker
No. 1 Spotted Tail Federal
SE $\frac{1}{4}$ NE $\frac{1}{4}$
Lea County, New Mexico

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.
2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. Operator will provide the dirt contractor with a copy of the enclosed Bureau of Land Management "Standard Requirements for all Drilling in Relation to Oil and Gas Activities in the Roswell District" prior to commencing construction of road, pad, or other associated developments.
7. In the event the oil or gas test results in a dry hole, the drill pad and access road will be ripped in accordance with "BLM Roswell District's Ripping Recommendations for Caliche or Compacted Drill Pads and Access Roads". (Reseeding of the affected areas may be required at the discretion of the BLM authorized officer).

All ripped surfaces are to be protected from vehicular travel by constructing a dead-end ditch and earthen barricade at the entrance to these ripped areas. The barricade is to be constructed using spoil material from the ditch and should be of sufficient magnitude to discourage vehicle entry.

8. All above ground structures, not subject to applicable conservation and safety requirements, shall be painted to blend with the natural surroundings unless alternate colors for specific equipment are requested and approved. The paint used should be a nonglare, nonreflective, flat, or semi gloss that simulates Fed. Stand. No. 595, color 30318.
9. Minimum required fill of cement behind the 5-1/2" casing is to the base of the salt section.

IP (Yates) Perfs 3232-3247 P 41 BOD + 38 BW. Pot based on 24 hr test. GOR NR; gty NR

CONTR	Cordoba	OPRS ELEV	3024'	GL	PD	3300'	RT
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7-18-78 F.R. 7-10-78
TD 3336'; MORT
No Cores or DST's

7-24-78 TD 3336'; PBD 3333'; Recg Ld
Perf (Yates) 3232-3324' , 2 shots
(overall)
Acid (3232-3324') 2200 gals
Frac (3232-3324') 30,000 gals + 50,000# sd

8-1-78 TD 3336'; PBD 3333'; Recg Ld

9-25-78 TD 3336'; PBD 3333'; Complete
Yates Discovery

9-30-78 COMPLETION ISSUED

9-5-13 NM
IC 30-025-70239-78