

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CO. (reverse side)
Artesia, NM 86810

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

Meridian Oil Inc.

3. ADDRESS OF OPERATOR

21 Desta Drive, Midland, Texas 79705

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

At surface

610' FSL & 660' FEL, Sec. 35, T-18-S, R-30-E

At proposed prod. zone

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

12 miles southeast of Loco Hills, New Mexico

15. DISTANCE FROM PROPOSED*

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

610'

16. NO. OF ACRES IN LEASE

80

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

19. DISTANCE FROM PROPOSED LOCATION*

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

1370'

18. PROPOSED DEPTH

3450'

20. ROTARY OR CABLE TOOLS

Rotary

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

3508' GR

22. APPROX. DATE WORK WILL START*

8-31-87

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# | 500' | 350 sx. Cl "C", Circulate |
| 7 7/8" | 5 1/2" | 15.5# | 3450' | Volume may vary w/zone development (by Temp Survey) |

Drill 12 1/4" hole to 500'. Set 8 5/8" csg @ 500'. Cmt w/350 sx. Circulate. Test Queen & intermediate horizons. If commercial, run 5 1/2" csg to TD. Cmt with sufficient volume to bring above all prospective zones. Est TOC @ surface. Perf & stimulate Queen for production.

MUD PROGRAM: 0-500' spud mud; 500-2500' brine; 2500-TD brine & gel & sweeps.

MW 9.8-10, VIS 33-36. BHP @ TD expected to be 1600 psi.

BOP PROGRAM: 10"-3M BOP stack to be installed on 8 5/8" and left on for remainder of drilling. Stack to consist of blind ram BOP & one pipe ram BOP. Test BOP's after each new installation w/rig pump.

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

Cathy Nohe

TITLE

Operations Tech III

DATE

8/12/87

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

8/24/87

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

All distances must be from the outer boundaries of the Section.

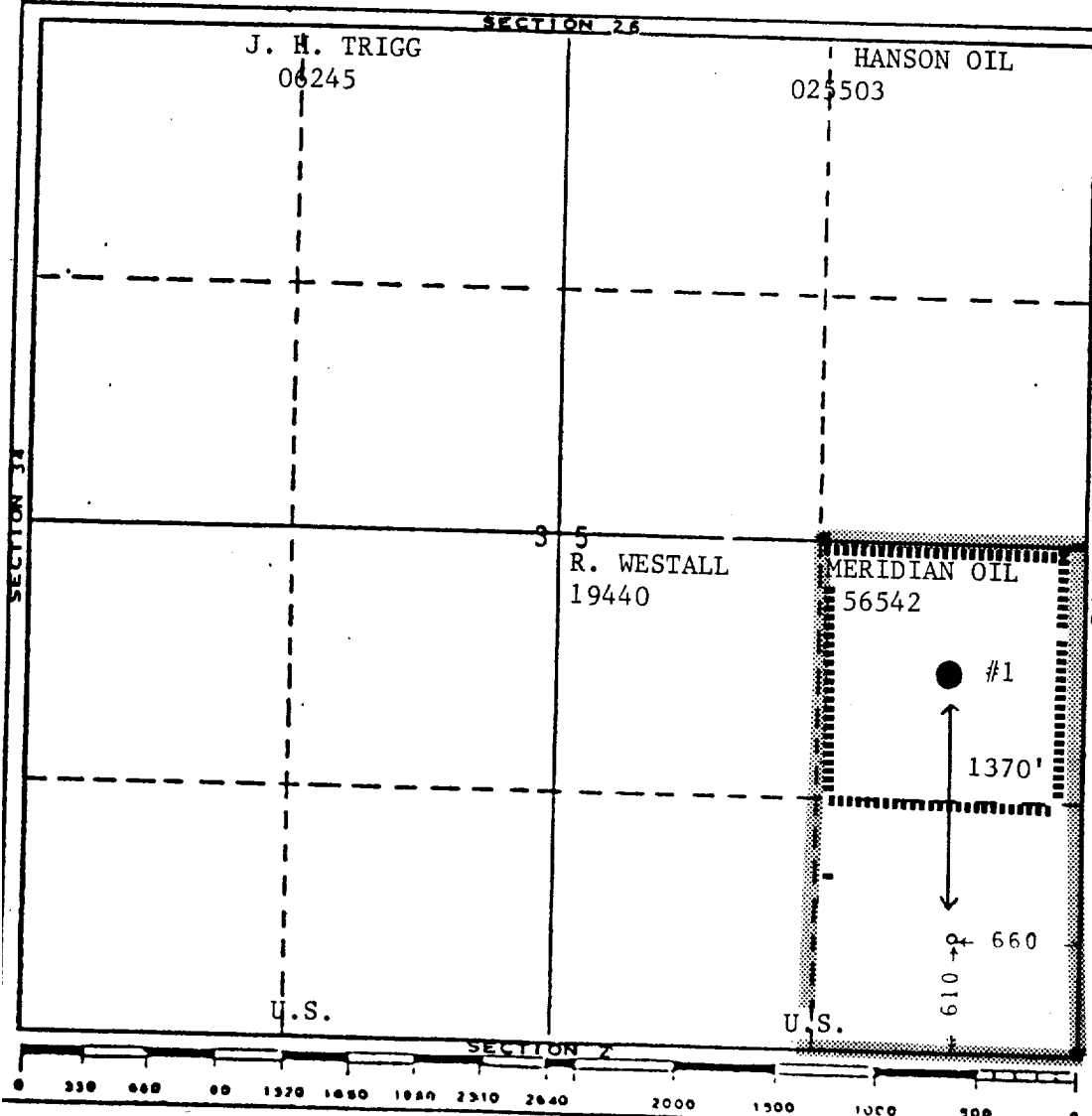
| | | | | | | |
|----------------------------------|------------------------------|-----------------------------|--------------------------------|-----------------------|--|------------|
| Operator: MERIDIAN OIL, INC. | | | Lease: CULWIN 35 FEDERAL LEASE | | | Well No. 2 |
| Unit Letter: <u>I</u> | Section: 35 | Township: 18-S | Range: 30-E | County: EDDY | | |
| Actual Footage Location of Well: | | | | | | |
| 610 feet from the south line and | | 660 feet from the east line | | | | |
| Ground Level Elev. 3508' | Producing Formation Y-SR-Q-G | | Pool Shugart | 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 _____

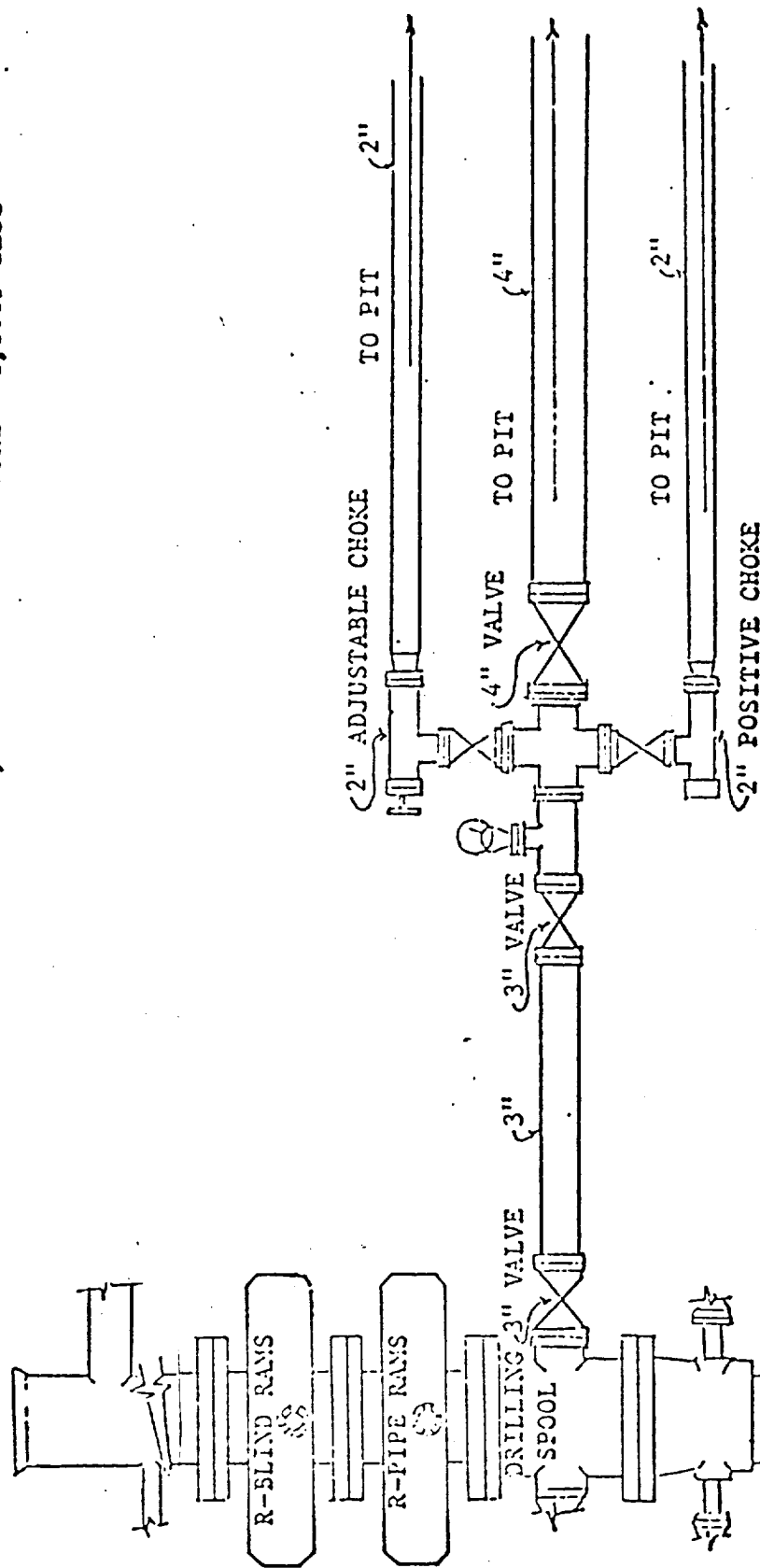
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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 Division.



| | |
|---|---------------------|
| CERTIFICATION | |
| I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. | |
| Name | Cathy Nokes |
| Position | Operations Tech III |
| Company | Meridian Oil Inc. |
| Date | 8/12/87 |
| 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 | August 4, 1987 |
| Registered Professional Land Surveyor | Earl Foote 8278 |
| Certificate No. | 8278 |

BLOW OUT PREVENTION EQUIPMENT
 10" 900s ALL FLANGED CONNECTIONS
 3,000# WORKING PRESSURE - 6,000# TEST



ATTACHMENT TO FORM C-101

MERIDIAN OIL INC.

Culwin "35" Fed No. 2
610' FSL & 660' FEL
Sec. 35, T-18-S, R-30-E
Eddy County, New Mexico
NM-56542

To supplement USGS Form 9-331C Application to Drill the following additional information is submitted concerning questions on Page 5 of NTL-6:

1. See Form 9-331C.
2. See Form 9-331C.
3. The geological name of surface formation is: Ochoa
4. See Form 9-331C.
5. See Form 9-331C.
6. The estimated tops of important geological markers are:

| | | | |
|-----------|-------|--------------|-------|
| Anhydrite | 400' | Seven Rivers | 2100' |
| Salt | 650' | Queen | 2900' |
| Base Salt | 1600' | Grayburg | 3200' |
| Yates | 1800' | | |

7. The estimated depths at which anticipated water, oil gas and mineral bearing strata are as follows:

| | | |
|--------------|-------|-------|
| Seven Rivers | 2100' | - Oil |
| Queen | 2900' | - Oil |
| Grayburg | 3200' | - Oil |

8. See Form 9-331C. All casing will be new.
9. See Form 9-331C for depths of strings. Cement volumes and additions as follows:

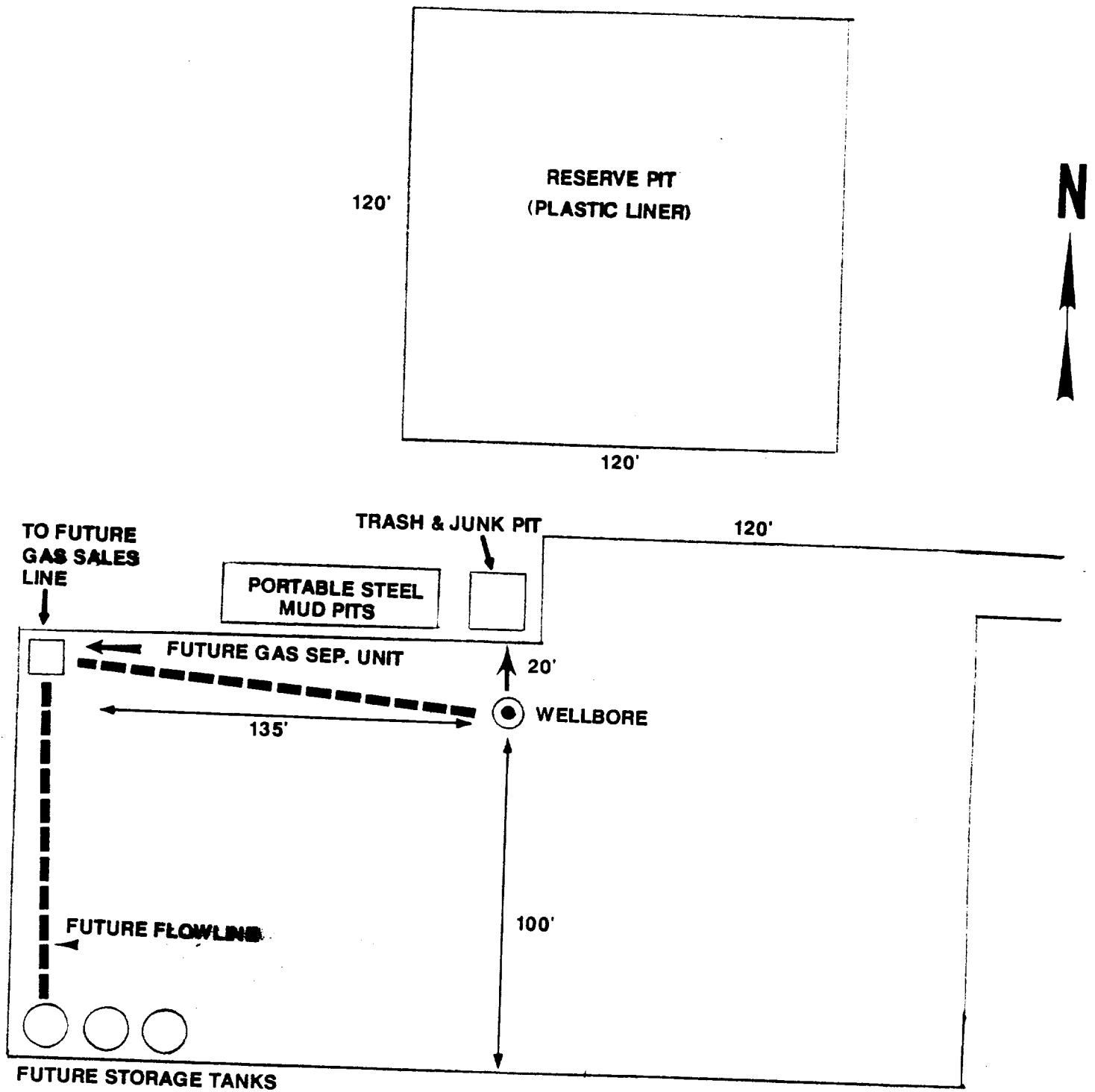
- a. 8 5/8" csg: Cement w/350 sxs C1 "C" cmt. Circ to surface.
- b. 5 1/2" csg: Lead w/700 sxs C1 "C" Lite w/18% salt and tail in w/300 sx C1 "C" w/5# salt/sx. Circulate cmt to surf.

A caliper log will be run prior to setting 8 5/8" & 5 1/2" pipe to determine exact cement volumes required.

10. The pressure control diagram is attached to Form 9-331C. The following additional information is as follows:



Fig. 1. USGS HACKBERRY LAKE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1985, Prov. Ed., showing MERIDIAN OIL COMPANY's proposed Culwin "35" Federal Lease Well No. 2, 660 FSL, 660 FEL, and access road, Section 35, T18S, R30E, NMPM, Eddy County, New Mexico.



MERIDIAN OIL

EXHIBIT "C"

Meridian Oil, 21 Desta Drive
Midland, Texas 79705

CULWIN "35" FEDERAL No. 2
610' FSL & 660' FEL
Sec. 35, T-18-S, R-30-E
Eddy County, New Mexico