

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

C/SF
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

MESA PETROLEUM CO. ✓

3. ADDRESS OF OPERATOR

1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701-4493

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

At surface

2310' FNL & 968' FEL SE 1/4 NE 1/4

At proposed prod. zone SAME

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

31 miles North/Northeast of Roswell, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any) 330'/330'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT. 3970'

16. NO. OF ACRES IN LEASE

160 (COM)

19. PROPOSED DEPTH

4400'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

20. ROTARY OR CABLE TOOLS

ROTARY

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

3676' GR

22. APPROX. DATE WORK WILL START*

APRIL 2, 1982

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	10 3/4"	40.5#	950'	SURFACE 700/300
9 1/2"	7 5/8"	26.4#/23#	1600'	TIE BACK 700/300
7 7/8"/6 1/2"/6 1/4"	4 1/2"/5 1/2"	10.5#/15.5#	4400'	COVER ABO 300

Propose to drill 14 3/4" hole with mud or air to approximately 950' and run 10 3/4" casing. Will cement to surface and test casing with cementing head to 600 psi. Will reduce hole to 9 1/2" and drill on mud or air to approximately 1600' and run 7 5/8" casing if circulation has been lost and cement with sufficient amounts to tie-back to 10 3/4" casing. Will then reduce hole to 6 1/2" or 6 1/4", test BOP's and casing and drill to total depth. If hole conditions are favorable, the 7 5/8" casing will be omitted and the hole will be reduced to 7 7/8" and drilled to total depth. Either 4 1/2" or 5 1/2" casing will be run as production casing depending upon hole sized drilled to TD.

Operator's gas sales are dedicated.

Posted ID-1
API + NL Book
4-9-82

XC: MMS (6), TLS, CEN RCDS, ACCTG, MEC, LAND, ROSWELL, REM, FILE, (PARTNERS)
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 R. P. Mathis TITLE REGULATORY COORDINATOR DATE 4-1-82

(This space for Federal or State office use)

APPROVED

PERMIT NO.

APPROVAL DATE

(Orig. Sgd.) GEORGE H. STEWART

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL: APR 2, 1982 / NOCD APPROVAL ON NON-STD LOCATION.

FOR

JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions On Reverse Side

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

Operator Mesa Petroleum Co.			Lease Helen Federal Com			Well No. 2
Unit Letter H	Section 1	Township 7 South	Range 25 East	County Chaves		
Actual Postage Location of Well: 2310 feet from the North line and 968 feet from the East line						
Ground Level Elev. 3676	Producing Formation ABO		Pool Pecos Slope ABO		Dedicated Acreage: NE 1/4 160 Acres	

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

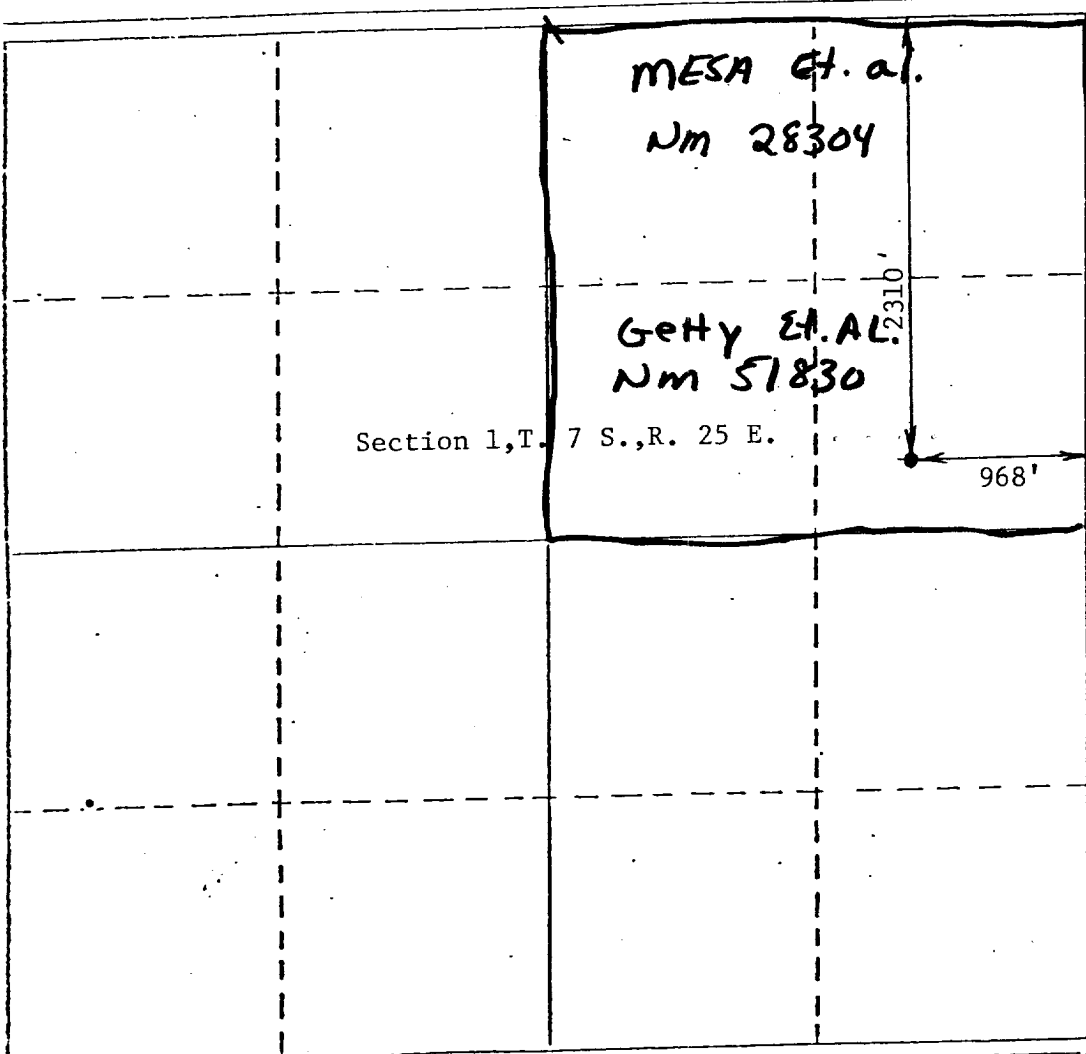
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Communitization in progress

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
Lloyd Reed

Position
Regulatory Agent

Company
Mesa Petr. Co.

Date
4-2-82

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
April 1, 1982
Registered Professional Engineer and/or Land Surveyor
John D. Jaquess, P.E. & L.S.
Certificate No.
6290

APPLICATION FOR PERMIT TO DRILL

MESA PETROLEUM CO.
HELEN FED COM #2
2310' FNL & 968' FEL, SEC 1, T7S, R25E
CHAVES COUNTY, NEW MEXICO

LEASE NO. NM-51830

In conjunction with Form 9331-C, Application For Permit to Drill subject well, the following additional information is provided:

1. Applicable portions of the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, Roswell District, Geological Survey of September 1, 1980 will be adhered to.

2. Geological markers are estimated as follows:

SEVEN RIVERS	Surface
SAN ANDRES	444
GLORIETA	1378
TUBB	2931
ABO	3598

3. Hydrocarbon bearing strata may occur in the Abo formation(s). No fresh water is expected to be encountered below 900'.

4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. See Exhibit VI. Anticipate drilling with mud, air or foam using ram type preventer and rotating head for well control. The 10 3/4" casing will be set at approximately 950' to protect any fresh water zones and cemented to the surface. The 7 5/8" casing will be set at approximately 1600' if water zones have been encountered or omitted if not and ram type preventers installed. Sufficient amounts and kinds of cement would be used to ensure any water, gas, or oil zones encountered are isolated and shut off down to the casing point if run. The 4 1/2" production casing will be set at total depth or shallower depending upon the depth of the deepest commercial hydrocarbon bearing strata encountered.

5. No drill stem test or coring program is planned. The logging program may consist of a GR-CNL from surface total depth and FDC from casing point to total depth.

6. Anticipated drilling time is ten days with completion operations to follow as soon as a completion unit is available.

MULTI-POINT SURFACE USE AND OPERATION PLAN

MESA PETROLEUM CO.
HELEN FED COM #2
2310' FNL & 968' FEL, SEC 1, T7S, R25E
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM-51830

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operational plan in both the actual and post drilling completion operations.

1. Existing Roads:

A. Exhibit I is a portion of a highway map showing the location of the proposed well as staked. The proposed well is approximately 31 miles North and East of Roswell, New Mexico.

B. Directions: Travel North from Roswell on U.S. Highway 285 for approximately 18 miles to Mile Marker 132 (El Paso Gas Plant) and turn East, take left fork and continue East for 11 miles to junction with county road (Red Bluff Ranch) and continue East 1 mile then turn North $1\frac{1}{2}$ miles to just before the Helen Fed Com #1 and turn East $\frac{1}{2}$ mile to the location.

2. Planned Access Road:

A. Length and width: The new access road will be 12' wide (20' ROW) and approximately $\frac{1}{2}$ mile of new lease road.

(See Exhibit II)

B. Construction: The new road will be constructed by grading and topping with compacted caliche. The surface will be crowned, with drainage on both sides. (See Exhibit III)

C. Culverts, Gates and Cattleguards: None.

D. Cut and Fill: In order for the location to be level, approximately 5' from the South and West will be moved to the North and East for fill.

3. Location of Existing Wells:

Existing wells within a one-mile radius are depicted by Exhibit IV.

4. Location of Existing and/or Proposed Facilities:

If the well proves to be commercial, the necessary production facilities, gas separation process equipment and tank battery, will be installed on the drilling pad.

5. Location and Type of Water Supply:

It is planned to drill the proposed well with air. If needed, water will be obtained from commercial sources and will be trucked to the wellsite over the exiting roads and proposed access road shown on Exhibits I and II.

6. Source of Construction Materials:

Caliche if used for surfacing the road and wellsite pad will be obtained by the dirt contractor from an approved pit.

7. Methods of Handling Waste Disposal:

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

B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

C. All pits will be fenced with normal fencing material to prevent livestock from entering the area.

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

E. Current laws and regulations 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 finished and/or completion operations.

8. Ancillary Facilities: None required.

9. Wellsite Layout:

A. Exhibit V shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged.

B. Some leveling of the wellsite may be required. See Exhibit III for additional details.

C. The reserve pit will not be plastic lined.

10. Plans for Restoration of the Surface:

A. After completion of drilling and/or completion operations all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing a condition as possible.

B. Any unguarded pits containing fluids will be fenced until they are filled.

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. (Subject only to Surface Owner/Operator Rehabilitation Agreement if executed.) All pits will be filled and leveled within 90 days after abandonment, if drying conditions permit.

11. Other Information:

A. Topography: See NMAS, Inc. Report

B. Soil: The topsoil at the wellsite is sandy loam.

C. Flora and Fauna: See NMAS, Inc. Archaeological Report for vegetative types.

D. Ponds and Streams: Five Mile Draw is due North and East of the location.

E. Residences and Other Structures: None.

F. Land Use: Grazing.

G. Surface Ownership: The wellsite is on private surface (Cooper).

H. NMAS, Inc. has conducted an archaeological study of this site and provides this report to interested parties.

12. Operator's Representatives:

A. The field representatives repsonsible for assuring compliance with the approved surface use and operations plan are as follows:

J. James
P. O. Box 298
Roswell, New Mexico 88201
(505-622-0992) - Office
(505-622-0234) - Home

W. R. Miertschin
1000 Vaughn Building
Midland, Texas 79701
(915-683-5391) - Office
(915-682-6535) - Home

13. Certification:

I hereby certify that I, or person 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 assoicated with the operations proposed herein will be performed by Mesa Petroleum Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4-1-82

DATE

Michael P. Houston

MICHAEL P. HOUSTON
OPERATIONS MANAGER