

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 BORE ☐ MULTIPLE BORE ☐

2. NAME OF OPERATOR
Mesa Grande Resources, Inc.

3. ADDRESS OF OPERATOR
1200 Philtower Building, Tulsa, Oklahoma 74103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface 1650' FNL & 1650' FWL, Sec. 16-25N-2W, NMPM
At proposed prod. zone
same as SURFACE above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
8 miles north of Lindrith, New Mexico

16. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest dril. unit line, if any) 990'

16. NO. OF ACRES IN LEASE
440

17. NO. OF ACRES ASSIGNED
TO THIS WELL 160/160

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 2200' +

19. PROPOSED DEPTH
6250'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
7270 GR

22. APPROX. DATE WORK WILL START*
March 12, 1989

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"	36#	300' +	150 sx. (180 ft. ³)
7 7/8"	4 1/2"	10.5#	6250' +	1360 sx. (2092 ft. ³)

PROPOSED PROGRAM:

- The proposed well will be drilled through the Mesa Verde Formation and will evaluate the hydrocarbon potential of the Chacra and Mesa Verde zones. The completion program will be determined at total depth after log analysis.
- A BOP will be installed after surface casing is set and cemented. Prior to drilling out from under surface, BOP will be tested to 500# SIP. All subsequent work will be conducted through BOP.
- Drilling mud will be low solid non-dispersed; 50-55 visc., 8.5-9.2 ppg.

CONTINUED ON SEPARATE SHEET

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 Alan P. Emmendorf TITLE Geologist DATE Feb. 1, 1989
(This space for Federal or State office use)

PERMIT NO. Approval of this action does

APPROVED BY not warrant that the applicant
CONDITIONS OF APPROVAL, IF ANY: holds legal or equitable rights
or title to this lease.

RECEIVED
APPROVAL DATE Feb 1 1989

APPROVED
AS AMENDED

DATE Feb 1 1989
APPROVED BY Ed E. Farrell
AREA MANAGER

CON. DIV.
DIST. 3

See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-78

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

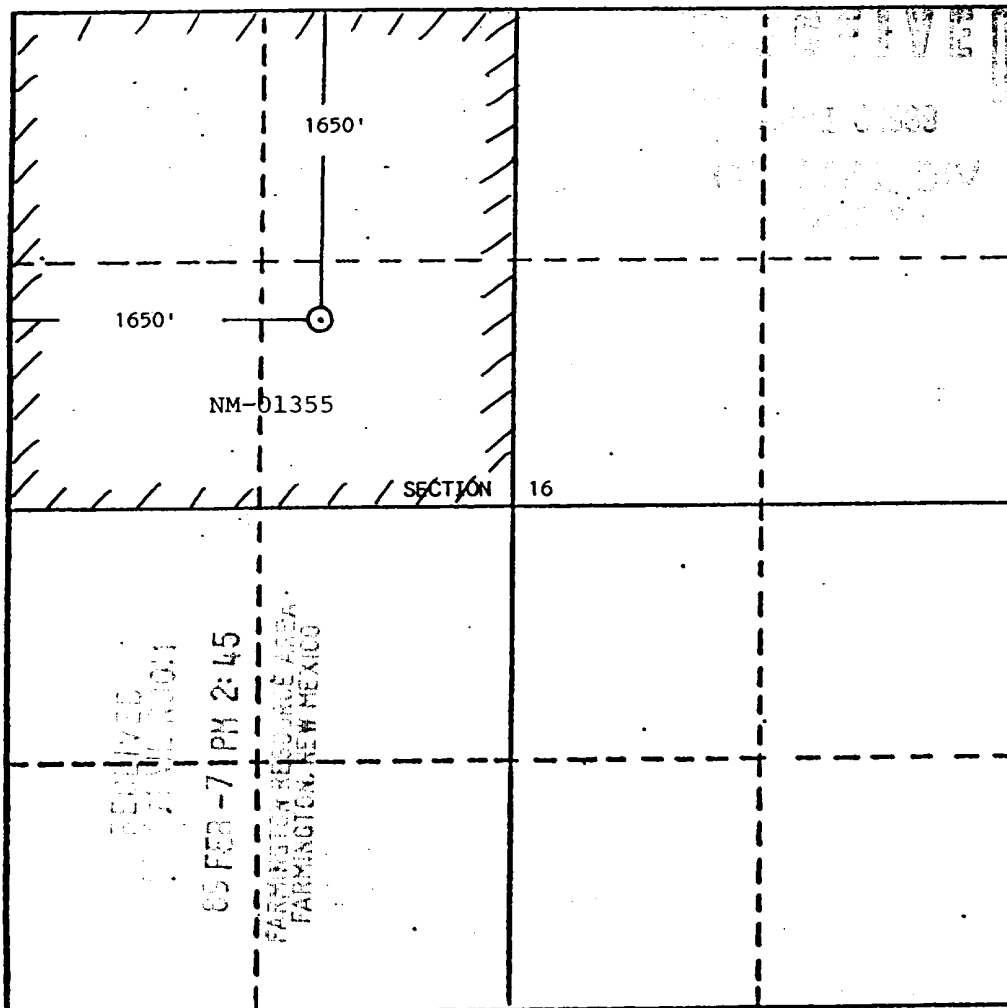
Operator Mesa Grande Resources, Inc.			Lease North Lindrith 16		Well No. 4
Unit Letter F	Section 16	Township 25 North	Range 2 West	County Rio Arriba	
Actual Footage Location of Well: 1650 feet from the North line and 1650 feet from the West line					
Ground Level Elev. 7270	Producing Formation Chacra/Mesa Verde	Pool Wildcat Chacra/Mesa Verde		Dedicated Acreage: 160 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.

Alan P. Emmendorfer

Name

Alan P. Emmendorfer

Position

Geologist

Company

Mesa Grande Resources, Inc.

Date

Feb. 1, 1989

I hereby certify that the location shown on this plat was located 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

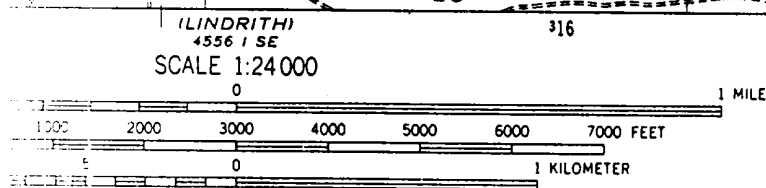
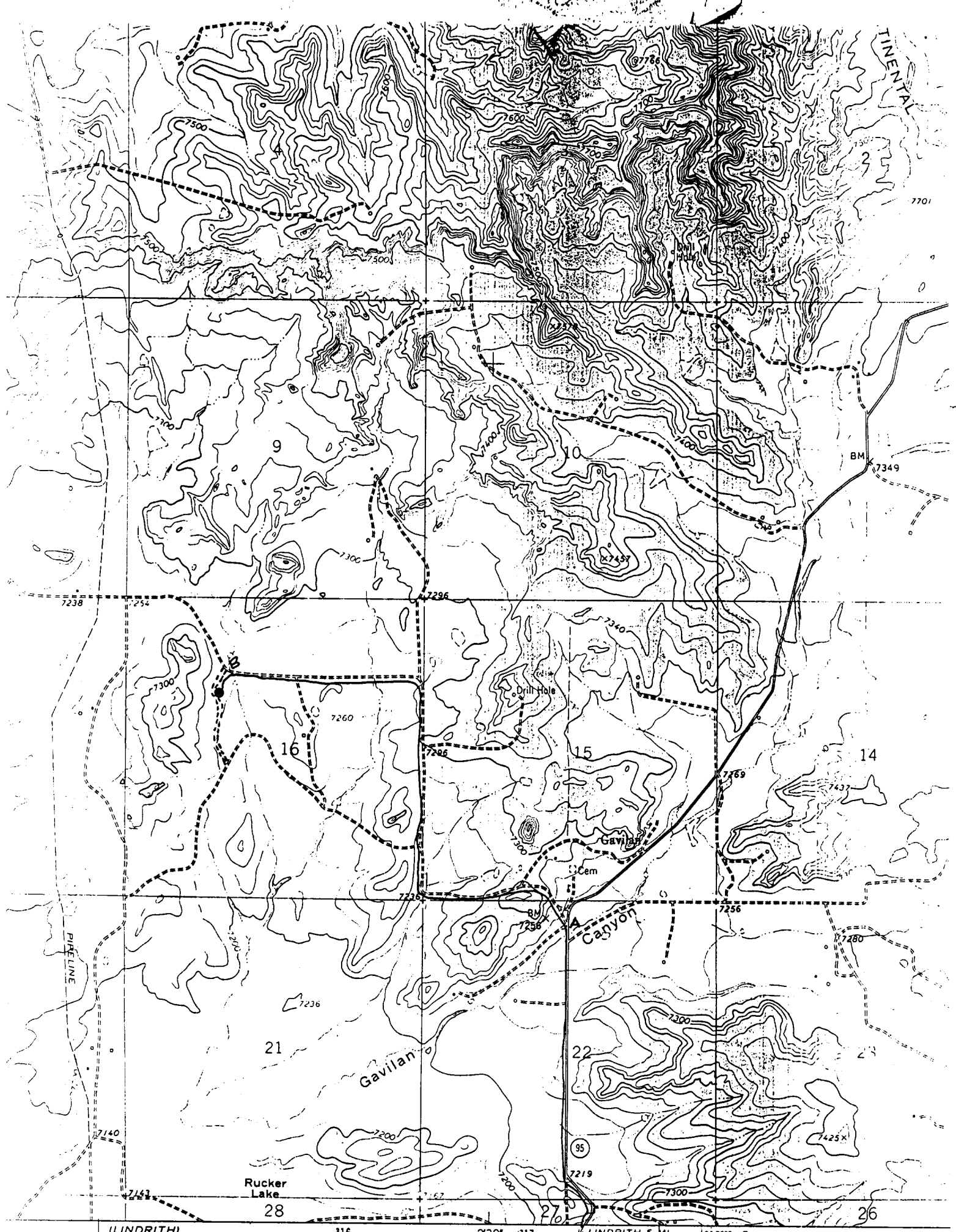
December 2, 1988

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenhoover

Certificate No. 5979

Edgar L. Risenhoover, L.S.



CONTOUR INTERVAL 20 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

Vicinity Map For:
 Mesa Grande Resources, Inc.
 North Lindrith 16 #4
 1650' FNL & 1650' FWL
 Section 16, T25N-R2W
 Rio Arriba County, New Mexico

COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 CAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

Light-duty