

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL
1b. TYPE OF WELL

2. OPERATOR
MERIDIAN OIL INC.

3. ADDRESS & PHONE NO. OF OPERATOR
P O BOX 4289
FARMINGTON, NM 87409

4. LOCATION OF WELL
790'N 1485'E

5. LEASE NUMBER
NM-011393

6. IF INDIAN, ALL. OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
CLEVELAND

9. WELL NO.
221

10. FIELD, POOL, OR WILDCAT
BASIN FRUITLAND COAL

11. SEC. T. R. M OR BLK.
SEC. 17 T27N R09W NMPM

14. DISTANCE IN MILES FROM NEAREST TOWN
15 miles S.of Blanco NM

12. COUNTY
SAN JUAN

13. STATE
NM

15. DISTANCE FROM
PROPOSED LOCATION 790'
TO NEAREST PROPERTY
OR LEASE LINE.

16. ACRES IN LEASE 17. ACRES ASSIGNED TO WELL
1280 320.00

18. DISTANCE FROM
PROPOSED LOCATION
TO NEAREST WELL DR. 500'
COMPL., OR APPLIED
FOR ON THIS LEASE.

19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS
2249' ROTARY

21. ELEVATIONS (DF, FT, GR, ETC.)
6312'GL

22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

"Approval of this action does
not warrant that the applicant
holds legal or equitable title
or title to this lease."

*SEE OPERATIONS PLAN

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"WELL LOG REQUIREMENTS".

24. AUTHORIZED BY:

REGULATORY AFFAIRS

DATE

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-73.

Well Name: 221 CLEVELAND 790'N 1485'E
 Sec. 17 T27N R09W SAN JUAN NEW MEXICO
 BASIN FRUITLAND COAL Elevation 6312'GL

Formation tops: Surface- Nacimiento
 Ojo Alamo- 1274
 Kirtland- 1468
 Fruitland- 1969
 Fruitland Coal Top- 2150
 Fruitland Coal Base- 2248
 Intermediate TD- 2130
 Total Depth- 2249
 Pictured Cliffs- 2251

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 200	Spud	8.4 - 8.9	40-50	no control
	200 - 2130	Non-dispersed	8.4 - 9.1	30-60	no control
	2130 - 2249	Formation Water	8.4		no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2130	7"	20.0#	K-55
	6 1/4"	2080 - 2249	5 1/2"	15.5#	K-55
Tubing Program:		0 - 2249	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe.

5 1/2" production casing - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

Cementing:

9 5/8" surface casing - cement with 106 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (125 cu ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 105 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 320 cu ft. of slurry, of sufficient volume to circulate to surface. As necessary, run temperature survey at 8 hours. WOC 12 hours. Test casing to 1500 psi for 30 minutes.

5 1/2" liner - do not cement.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesa, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

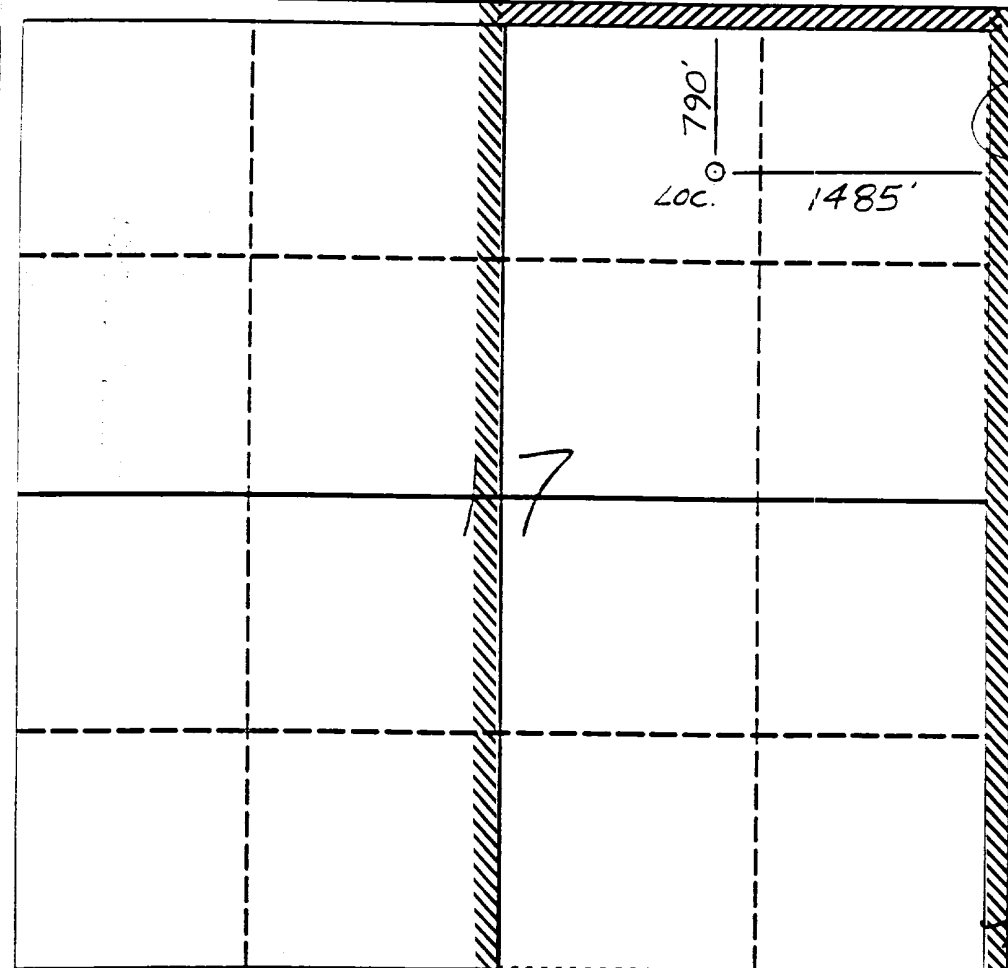
All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.		Lease Cleveland (NM-011393)		Well No. 221	
Unit Letter B	Section 17	Township 27 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 790 feet from the North line and 1485 feet from the East line					
Ground level Elev. 6312	Producing Formation Fruitland Coal		Pool Basin	Dedicated Acreage: 320.00 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatching 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 interest 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, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature: *Peggy Bradfield*

Printed Name: Peggy Bradfield

Position: Regulatory Affairs

Company: Meridian Oil Inc.

Date: 5-17-89

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes, 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: 4-20-89

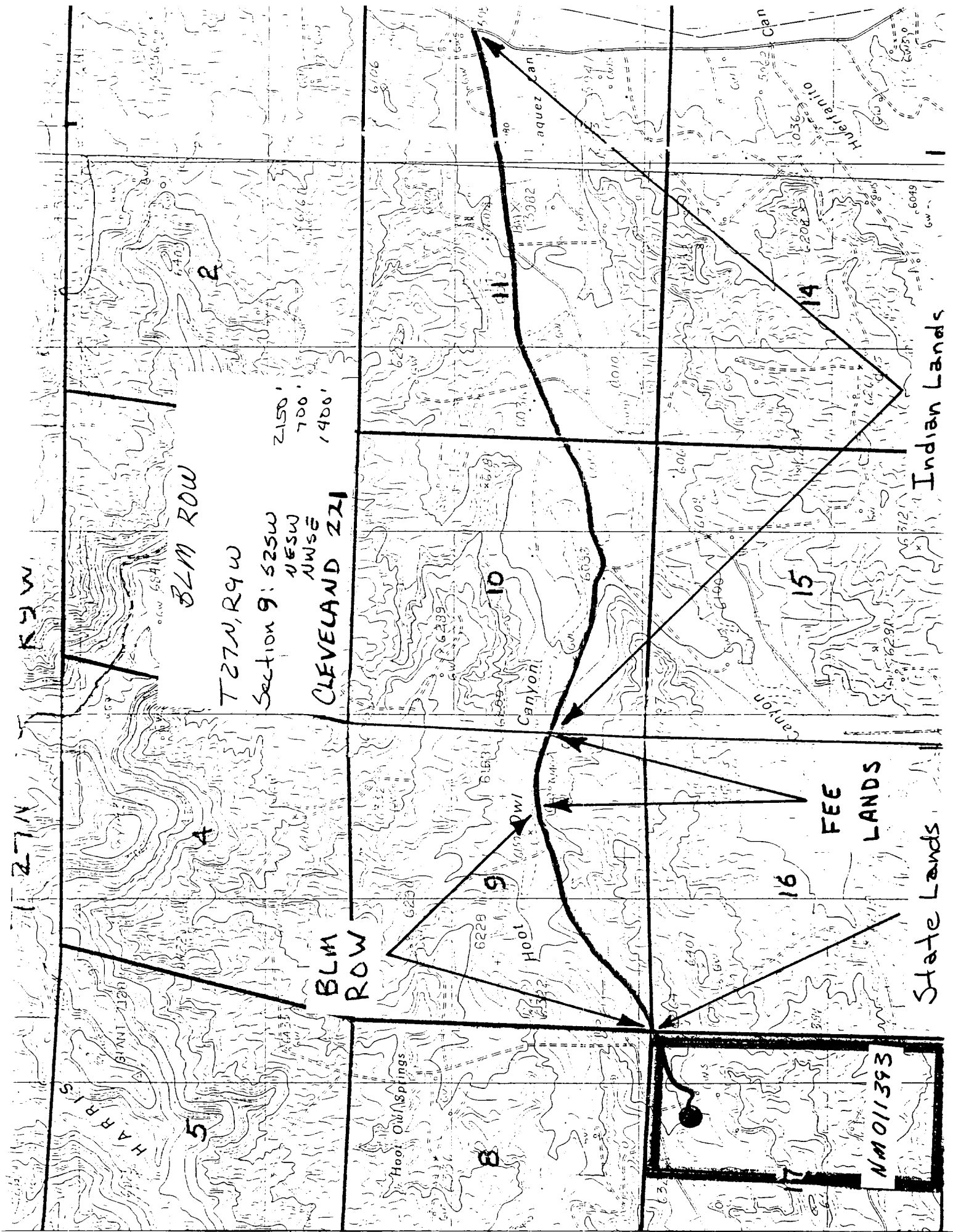
Signature of Seal: Neal E. Edwards

Professional Surveyor

REGISTERED LAND SURVEYOR

Certificate No. 6857

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0



T27N

R9W

BLM ROW

T27N, R9W

Section 9: S2SW
N2SW
N2SE

CLEVELAND 221

BLM
ROW

2150'
700'
1400'

5

9

10

11

14

15

16

FEE
LANDS

State Lands

Indian Lands

NM 011393