

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ROW/APD

FORM APPROVED  
Budget Bureau No. 1004-0136  
Expires: February 28, 1995

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. Lease Designation and Serial No.  
NM-33031

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Serendipity #4

9. API Well No.

30-C45-29976

10. Field and Pool, or Exploratory Area  
WAV Fruitland Pictured Cliffs

11. Sec., T., R., M., or BLK.

and Survey or Area

Section 26, T26N, R13W

12. County or Parish

San Juan

13. State

NM

1a. Type of Work

DRILL ☒DEEPEN ☐

b. Type of Well

Oil Well ☐Gas Well ☒Other ☐Single Well ☒Multiple Well ☐

2. Name of Operator

Merrion Oil &amp; Gas Corporation

3. Address and Telephone No.

610 Reilly Ave Farmington NM 87401  
ph: (505) 327-9801

4. Location of Well (Footages)

At Surface 1080' fml &amp; 1450' fel (nw ne)

At proposed prod. zone

Same

14. Distance in Miles and Directions from Nearest Town or Post Office

22 miles south of Farmington NM, near Chaco Plant

15. Distance from Proposed Location to Nearest Property or Lease Line, Ft

1080'

16. No. of Acres in Lease

400 acres

17. No. of Acres Assigned to This Well

160 acres

18. Distance from Proposed Location to Nearest Well Drilling, Completed, or Applied for, on this Lease, FT

+/-2691'

19. Proposed Depth

+/-1387'

20. Rotary or Cable Tools

Rotary

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"  
As soon as permitted

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

150' GR, 6155' RKB

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7" J55	23 ppf	~120' KB	~30 sx (35 cuft)
6-1/4"	4-1/2" J55	10.5 ppf	~1387' KB	~108 sx (165 cuft)

Merrion proposes to drill 8-3/4" hole with native mud to approx 120' and set 7" 23# J55 surface casing, cement to surface with ~30 sx 'B' w/ 2% CaCl<sub>2</sub> (35 cuft). Will drill 6-1/4" hole to TD @ approx 1387' KB with low solids non-dispersed mud system. Run open hole surveys. Will set 4-1/2" 10.5 ppf J55 production casing from TD to surface. Will cement with 42 sx 'B' w/ 2% SMS (87 cuft) and tail in with 66 sx 'B' (78 cuft) cement to fill from total depth to surface. A cementing chronology will be recorded and submitted to the BLM after completion of the job. Top of Cement should circulate to surface (will adjust volumes based upon caliper log).

A ~5 bbl water spacer will be pumped ahead of the lead slurry to prevent mud contamination of the cement. If cement does not reach surface, a temperature log or cement bond log will be run to determine top of cement.

The production casing will be centralized through the Pictured Cliffs and Fruitland intervals and through any usable water zones. Turbo-centralizers will be placed just below and into the base of the lowest usable water zone.

Will test Pictured Cliffs through perforated casing. Will fracture stimulate and put on for production test. Drilling operations below surface casing will be conducted with a Bag type BOP in place, minimum working pressure 1000 psig. Additional drilling technical details attached.

A pipeline route approval is also proposed as part of this APD as per the enclosed topographic map.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM. If proposal to deepen, give present productive zone and proposed new productive zone.

COPIES: BLM+4, WELL FILE+1

24. I hereby certify that the foregoing is true and correct

Signed

Steven S. Dunn

Title Drilling &amp; Prod Manager

Date September 30, 1999

(This space for Federal or State office use)

Permit No.

Approval Date

10/2/00

Application approval does not warrant or certify that applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any:

APPROVED BY

TITLE

DATE

10/2/00

NMOOD

2040 South F acheco, Santa Fe, NM 87505

16		<p><b>17 OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i></p> <p>Signature <u><i>Connie S. Dinning</i></u></p> <p>Printed Name <u>Connie S. Dinning</u> <i>For</i></p> <p>Title <u>Contract Engineer</u></p> <p>Date <u>9-30-99</u></p>
		<p><b>18 SURVEYOR CERTIFICATION</b></p> <p><i>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 belief.</i></p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor <u><i>Gerald G. Huddleston</i></u></p> <div style="text-align: center;"> </div> <p>Certificate Number _____</p>

**MERRION OIL & GAS  
CORPORATION**

**TOPO LOCATOR MAP**

**SERENDIPITY No. 4**

1080' fml & 1450' fel (nw ne)  
Sec 26, T26N, R13W, NMPM  
San Juan County, New Mexico

