

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR
Richardson Operating Co. (303) 830-8000

3. ADDRESS AND TELEPHONE NO.
1700 Lincoln, Suite 1700, Denver, Co. 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)
At surface 795' FSL & 665' FEL
At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
4 air miles NE of Kirtland, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
795'

16. NO. OF ACRES IN LEASE
1,120

17. NO. OF ACRES ASSIGNED TO THIS WELL
160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
3/4 mile

19. PROPOSED DEPTH
1,300'

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5,500' ungraded ground

22. APPROX. DATE WORK WILL START*
Dec. 20, 1999

5. LEASE DESIGNATION AND SERIAL NO.
NM-97843

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A 2.3904

8. FARM OR LEASE NAME, WELL NO.
WF Fed. 29 #2

9. AP WELL NO.
30-045-30058

10. FIELD AND POOL, OR WILDCAT
Twin Mounds PC Ext.

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
29-30n-14w NMMPM

12. COUNTY OR PARISH
San Juan

13. STATE
NM

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------------|-----------------|---------------|-------------------------|
| 8-3/4" | 7" (K-55) | 20# | 120' | ≈36 cu ft & to surface |
| 6-1/4" | 4-1/2" (K-55) | 10.5# | 1,300' | ≈235 cu ft & to surface |

This action is subject to technical and procedural review pursuant to 40 CFR 3165.3 and appeal pursuant to 40 CFR 3165.4.

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

This APD is also serving as a road right-of-way application. The APD will amend Richardson's existing road right-of-way grant NM-99904. Newly applied for portion is 25' wide and 6,000' long (=3.44 acres) in SESW & S2SE4 Sec. 31 and W2NW4 Sec. 33, T. 30 N., R. 14 W.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Brian [Signature] CONSULTANT (505) 466-8120 DATE 11-19-99
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 12/21/99

Application approval does not warrant or certify that the 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 ch se TITLE _____ DATE 12/21/99

*See Instructions On Reverse Side

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

1999 NOV 22 AM 11:56

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | |
|----------------------------|---|--------------------|-----------------------------------|
| API Number 30-045-30058 | | Pool Code 86620 | Well Name TWIN MOUNDS PC EXT. |
| Property Code 23904 | Property Name WF Federal 29 | | Well Number 23904 2 |
| OCRID No. 019219 | Operator Name RICHARDSON OPERATING COMPANY | | Elevation 5500' |

10 Surface Location

| | | | | | | | | | |
|---------------------|---------------|------------------|---------------|---------|---------------|------------------|---------------|----------------|----------|
| UL or lot no. P. | Section 20 | Township 30 N | Range 14 W | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| | | | | | 795 | South | 665 | East | San Juan |

11 Bottom Hole Location If Different From Surface

| | | | | | | | | | |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| | | | | | | | | | |

| | | | |
|--------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
| | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | | | | | | |
|----|---|--|--|--|--|--|
| 16 | <p style="text-align: center;">* RECEIVED DEC 27 1999 OIL CON. DIV. DIST. 3</p> | | | | 17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief | |
| | | | | | Signature BRIAN WOOD | |
| | | | | | Printed Name CONSULTANT | |
| | | | | | Title NOV. 19, 1999 | |
| | | | | | Date | |
| | | | | | 18 SURVEYOR CERTIFICATION 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 | |
| | | | | | Date of Survey NOV 19 1999 | |
| | | | | | Signature and Seal of Professional Surveyor: 6844 REGISTERED LAND SURVEYOR | |
| | | | | | Certificate Number | |

795'

665'

Richardson Operating Co.
WF Federal 29 #2
795' FSL & 665' FEL
Sec. 29, T. 29 N., R. 14 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

| <u>Formation Name</u> | <u>GL Depth</u> | <u>KB Depth</u> | <u>Subsea Elevation</u> |
|-----------------------|-----------------|-----------------|-------------------------|
| Kirtland Sh | 000' | 5' | +5,500' |
| Fruitland Fm | 520' | 525' | +4,980' |
| Pictured Cliffs Ss | 1,075' | 1,080' | +4,425' |
| Total Depth (TD)* | 1,300' | 1,305' | +4,200' |

* all elevations reflect the ungraded ground level of 5,500'

2. NOTABLE ZONES

| <u>Gas Zones</u> | <u>Water Zones</u> | <u>Coal Zones</u> |
|--------------------------|---------------------|---------------------|
| Fruitland Fm (525') | Fruitland Fm (525') | Fruitland Fm (525') |
| Pictured Cliffs (1,075') | | |

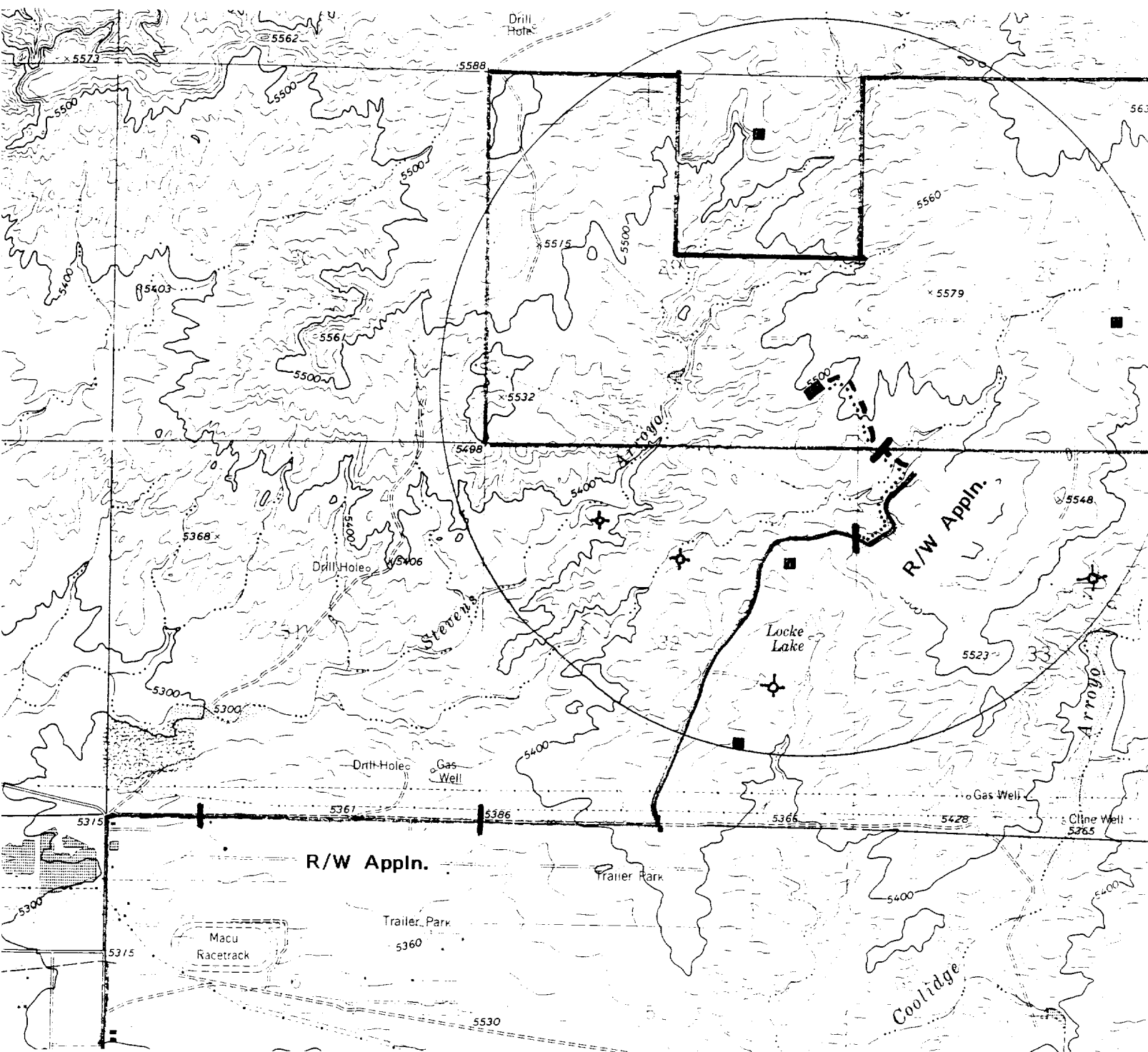
Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) Double ram or annular system with a rotating head will be used. All ram preventers and related equipment will be hydraulically tested at nipple up and after any use under pressure to 1000 psi.

Richardson Operating Co.
 WF Federal 29 #2
 795' FSL & 665' FEL
 Sec. 29, T. 29 N., R. 14 W.
 San Juan County, New Mexico

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PROPOSED WELL: ◆

EXISTING WELL: ■

NEW ROAD: - - -

EXISTING ROAD: ~ ~ ~

PIPELINE: . . .

LEASE: ┌