

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NMM-99003	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		6. INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Richardson Operating Company		7. UNIT AGREEMENT NAME 23339	
3. ADDRESS AND TELEPHONE NO. 3100 LaPlata Highway, Farmington, NM 87401		8. FARM OR LEASE NAME, WELL NO. WF Federal 30 #2	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 830' FSL & 1130' FEL At proposed prod. zone		9. API WELL NO. 30045 31307	
10. FIELD AND POOL, OR WILDCAT Basin Fruitland & Twin Mo. PC		11. SEC., T., R., M., OR BLK AND SURVEY OR AREA Sec 30, T30N, R14W NMPM	
12. COUNTY San Juan		13. STATE New Mexico	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 2 air miles N of Kirtland, NM		15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 1130' (Also to nearest drip unit line, if any)	
16. NO. OF ACRES IN LEASE 960		17. NO. OF ACRES ASSIGNED TO THIS WELL 320/160 SE/4 PC	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, 2881' OR APPLIED FOR, ON THIS LEASE, FT.		19. PROPOSED DEPTH 1300'	
20. ROTARY OR CABLE TOOLS Rotary		21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5470' GR	
22. APPROX. DATE WORK WILL START* February 1, 2002		23.	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8.75"	7" (J-55)	17#	120'	~36 cu.ft. & to surface
6.25"	4.5" (J-55)	10.5#	1300'	~235 cu.ft. & to surface

Please note: The original APD for this well was approved 5/24/00 and has expired. Please reference original APD for on site and archeology reports.

The Basin Fruitland Coal has been added to this permit pursuant to New Mexico Oil Conservation Division Order No. R-11775-B.

This action is subject to technical and procedural review pursuant to 43 CFR 3165.8 and appeal pursuant to 43 CFR 3165.4

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

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 true vertical depths. Give blowout prevention program, if any.

24.

SIGNED

TITLE Operations ManagerDATE 12-26-02

(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE _____

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

/s/ David J. Mankiewicz

TITLE _____

DATE

APR 15 2003**NMOCD**

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

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

Revised February 2000
Instructions on how to
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

API Number 30-045-31307	Pool Code 71629/86620	Pool Name Basin Fruitland Coal & Twin Mounds Pictured Cliffs
Property Code 23339	Property Name WF Federal	Well Number 30-2
OCRID No. 019219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5470'

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
P	30	30° N	14 W		830	South	1130	East	San Juan

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

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

Date _____

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.

Signature and Seal of Professional Surveyor

Certificate Number

070 Farmington, NM
2002 DEC 27 PM 12: 58

RECEIVED

Richardson Operating Company
WF Federal 30 #2
830' FSL & 1130' FEL
Section 30, T30N, R14W, NMPM
San Juan County, New Mexico

DRILLING PROGRAM

1. ESTIMATED FORMATION TOPS:

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Subsea Elevation</u>
Kirtland Sh	000'	5'	+5,470'
Fruitland Fm	500'	505'	+4,970'
Pictured Cliffs Ss	750'	755'	+4,720'
Total Depth (TD)*	1,300'	1,305'	+4,170'

*All elevations reflect the ungraded ground level of 5,470'

2. NOTABLE ZONES:

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland Fm (500')	Fruitland Fm (500')	Fruitland Fm (500')
Pictured Cliffs (750')		

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 representatives recommendations.

3. PRESSURE CONTROL:

The drilling contract has not yet been awarded, thus the exact BOP model to be used is unknown. (A typical 2,000 psi model has been attached to the end of the drilling program.) 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.

Blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. BOP equipment will include a floor safety valve and choke manifold rated to 2000 psi. Maximum expected pressure is 520 psi.

**Drilling Program
Richardson Operating Company**

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4. CASING AND CEMENTING PROGRAM:

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>GL Setting Depth</u>
8 3/4"	7"	20	J-55	New	120'
6 1/4"	4 1/2"	10.5	J-55	New	1,300'

Surface casing will be cemented to surface with ~36 cu.ft. (~30 sx) Class B + 2% CaCl. Volume is based on 100% excess, yield of 1.18 cu.ft./sk, and slurry weight of 15.6 ppg. WOC = 12 hours. Pressure test surface casing to 600 psi for 30 minutes.

Production casing hole will first be cleaned of rock chips by circulating at least 150% of hole volume with drilling fluid to surface. Thirty barrels of fresh water will then be circulated. Lead with ~135 cu.ft. (~65 sx) Class B with 2% metasilicate (yield = 2.06 cu.ft./sk, slurry weight = 12.5 ppg). Tail in with ~100 cu.ft. (~85 sx) Class B with 2% CaCl (yield = 1.18 cu.ft./sk, weight = 15.6 ppg). Total cement volume is ~235 cu.ft. based on 75% excess and circulating to surface.

Production casing will have 4 1/2" cement guide shoe and self fill float collar. Float will be placed one joint above the shoe. Five centralizers will be spaced every other joint starting above the shoe. Five turbolizers will be placed every other joint starting from the top of the well.

5. MUD PROGRAM:

Surface casing hole will be drilled with fresh water. Production casing hole will be drilled with a fresh water polymer mud. Weighting material will be drill solids or, if needed, barite. Maximum expected mud weight will be 8.7 ppg. Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well while drilling.

6. CORING, TESTING, & LOGGING:

No cores or DSTs are planned. A cased hole CNL/GR will be ran from TD to surface.

7. DOWNHOLE CONDITIONS:

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum pressure will be approximately 520 psi.

8. OTHER INFORMATION:

The anticipated spud date is February 1, 2003. It should take 5 days to drill and 1 week to complete the well.