(August 19<mark>9</mark>9)

la. Type of Work:

1b. Type of Well:

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

1,589

FORM APPROVED OMB No. 1004-0136 pires November 30, 2000

UNITED STATES						Expires Novellie			
DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT					VED	5. Lease Serial No. NMSF-079065			
	A DDL ICATI			RILL OR REE	NTED			6. If Indian, Allottee or	Tribe Name
	AFFLICATI	ON FOR F	ENWITT TO DI		7(1)3	JAN -8	AM 9:	5N/A	
Type of Work:	drill		REENTE	ER	070	Farming	itaa N	7. If Unit or CA Agreem N/A 8. Lease Name and Well	ent, Name and No. 7
Type of Well:	Oil Well	Gas Well	Other	☐ Singl	e Zone	Multiple	e Zone	F-RPC 29 #3	No.
Name of Operat		N OPERA	ATING CO.					9. API Well No. 30-045-	327
Address 3100 FAR		A HIGHV N, NM 87		3b. Phone No. (rea code) -3100		10. Field and Pool, or Ex W KUTZ PC & BA	•
				any State requirer	nents.*)			11. Sec., T., R., M., or Bl	k. and Survey or Area
At surface At proposed pro			1530' FWL	-				人 29-29n-13w	NMPM
Distance in miles 2 AIR MIL			n or post office* INGTON					12. County or Parish SAN JUAN	13. State
Distance from proposed* 16. No. of Acres in lease			se	17. Spacing Unit dedicated to this well					

to nearest well, drilling, completed, applied for, on this lease, ft. 1,774 1.400 21. Elevations (Show whether DF, KDB, RT, GL, etc.)

22. Approximate date work will start*

23. Estimated duration

PC: 160 AC. (SW4) COAL: 320 AC. (V

#158293308 (BLM - NATIONWIDE)

FEBRUARY 1, 2003

2 WEEKS

24. Attachments

1,470.81

19. Proposed Depth

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

3a. Address 3100 LaPLATA HIGHWAY

(Also to nearest drig, unit line, if any)

18. Distance from proposed location*

location to nearest property or lease line, ft.

5.515' GL

14. Distance in miles and direction from nearest town or post office* 2 AIR MILES SW OF FARMINGTON

- 2. A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

20. BLM/BIA Bond No. on file

- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

Comments

25. Signature

Title

Notice of Staking filed as "RPC 29 3"

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR \$165.4

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

BRIAN WOOD

. Richardson

PHONE: 505 466-8120

1-4-03 FAX: 505 466-9682

Approved by (Signature) Isl David J. Mankiewicz

Name (Printed/Typed)

Name (Printed/Typed)

Title

Office

Application approval does not warrant or certify the 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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

State of New Mexico Energy. Minerals & Mining Resources Department OL CONSERVATION DIVISION 2040 South Pacheco

2040 South Pacheco Santa Fe. NM 87505 MEPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number		Pool Code	Pool Name		
30-045-,	31327	71629 & 79680	BASIN FRUIT. COAL & WEST	r KUTZ PC	
Property Code		Propert	y Name	Well Number	
31057		FRPC	• 3		
OGRID No.		Operato	r Nane	Bevation	
- 019219		- RICHARDSON OPER	RATING COMPANY	55l5 ⁻	

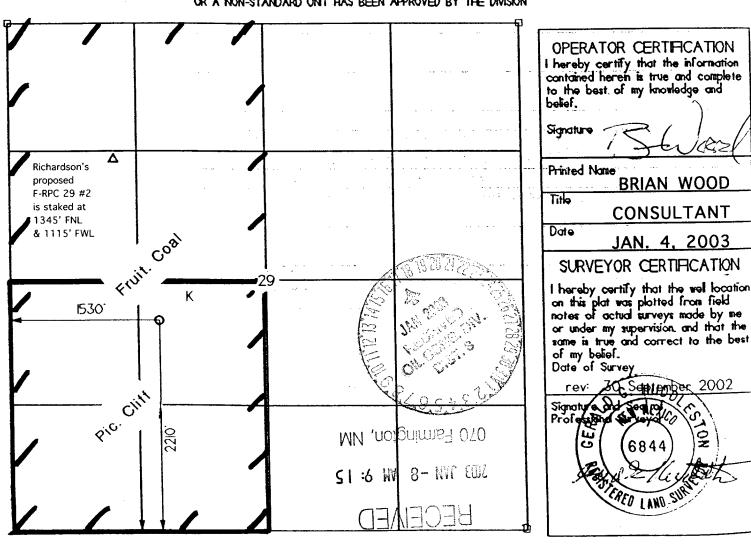
Surface Location Lot lan Feet from North/South Feet from> County UL or Lot Sec. Tup. Rgo. East/West 29 WEST SAN JUAN K 29 N. 13. W. 2210 SOUTH 1530'.

Battom Hole Lacation If Different From Surface

UL or Lat Sec. Trip. Rge. Lat Idn. Feet from North/South Feet from East/West County

Dedication Joint? Consolidation Order No.

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



Richardson Operating Company F-RPC 29 #3 2210' FSL & 1530' FWL Sec. 29, T. 29 N., R. 13 W. San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation Name	GL Depth	KB Depth	Elevation
Kirtland Shale	000'	5'	+5,515'
Fruitland Fm	915'	920'	+4,600'
Pictured Cliffs Ss	1,240'	1,173'	+4,275'
Total Depth (TD)*	1,400'	1,405'	+4,058'

^{*} all elevations reflect the ungraded ground level of 5,515'

2. NOTABLE ZONES

Gas Zones	Water Zones	Coal Zones
Fruitland	Fruitland	Fruitland

Pictured Cliffs

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 1,000 psi.



Richardson Operating Company F-RPC 29 #3 2210' FSL & 1530' FWL Sec. 29, T. 29 N., R. 13 W. San Juan County, New Mexico

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 kelly, floor safety valve, and choke manifold all rated to 2,000 psi. Maximum expected pressure is ≈ 560 psi.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	Weight (lb/ft)	<u>Grade</u>	<u>Age</u>	GL Setting Depth
8-3/4"	7"	20	K-55	New	120'
6-1/4"	4-1/2"	10.5	K-55	New	1,400'

Surface casing will be cemented to surface with ≈ 36 cu. ft. (≈ 30 sacks) Class B + 2% CaCl₂. Volume is based on 100% excess, yield of 1.18 cu. ft./sk, and slurry weight of 15.6 PPG. W.O.C. = 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 mud to the surface. Forty barrels of fresh water will next be circulated. Lead with ≈ 170 cubic feet (≈ 83 sacks) of Class B with 2% metasilicate (yield = 2.06 cubic feet per sack, slurry weight = 12.5 pounds per gallon). Tail with ≈ 110 cubic feet (≈ 93 sacks) of Class B with 2% CaCl₂ (yield = 1.18 cubic feet per sack, slurry weight = 15.6 pounds per gallon). Total cement volume is ≈ 280 cubic feet 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. Seven centralizers will be spaced on every other joint starting above the shoe. Seven turbolizers will be placed on every other joint starting from the top of the well.

