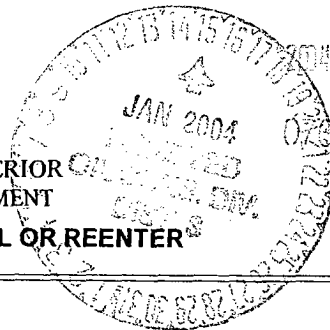


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED



FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

5. Lease Serial No.
NMSF-079065

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
N/A

8. Lease Name and Well No.
FRPC 29 #4R-4Y

9. API Well No.
30-045-32117

10. Field and Pool, or Exploratory
W. Kutz PC & Basin Fruitland Coa

11. Sec., T., R., M., or Blk. and Survey or Area
P Sec. 29-T29N-R13W, NMPM

12. County or Parish
San Juan

13. State
NM

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

2. Name of Operator

Richardson Operating Company

3a. Address

3100 La Plata Highway, Farm., NM

3b. Phone No. (include area code)

564-3100

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 730' FSL & 715' FEL

At proposed prod. zone Same

14. Distance in miles and direction from nearest town or post office*

2 Miles SW of Farmington, New Mexico

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

730'

16. No. of Acres in lease

1,470.81

17. Spacing Unit dedicated to this well

PC 160.00 (SE/4) FR 320.00 E/2

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

3,570'

19. Proposed Depth

1600'

20. BLM/BIA Bond No. on file

BLM Nationwide #158293308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

5830 GL

22. Approximate date work will start*

Immediate

23. Estimated duration

2 weeks

24. Attachments

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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Name (Printed/Typed)

Paul Lehrman

Date

1/12/04

Title

Landman

Approved by (Signature)

/s/ David J. Markiewicz

Name (Printed/Typed)

Date

JAN 14 2004

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.

*(Instructions on reverse)

This is a replacement well for the FRPC 29 #4 which encountered downhole problems.
The FRPC 29 #4 will be p & A'd and the new hole moved 30' easterly.
No additional Archaeology required per letter from La Plata dated 1/12/04. See attached.

This action is subject to technical and
procedural review pursuant to 43 CFR 3100.2
and appeal pursuant to 43 CFR 3160.4

NMOCD

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

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045- 32117	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 31057	Property Name FRPC 29	Well Number 4RY
OGFD No. 19219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5830'

Surface Location									
UL or Lot P	Sec. 29	Twp. 29 N.	Rgn. 13 W.	Lot Id.	Feet From 730'	North/South SOUTH	Feet From 75'	East/West EAST	County SAN JUAN

Borehole Location if Different From Surface									
UL or Lot	Sec.	Twp.	Rgn.	Lot Id.	Feet From	North/South	Feet From	East/West	County
Dedication	Job #	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

	E/2 Fruitland Coal		
		29	
			P

730'

75'

OPERATOR CERTIFICATION

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

Signature

Printed Name

Paul Lehrman

Title

Landman

Date

1/12/04

SURVEYOR CERTIFICATION

I hereby certify that the well location 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.

Date of Survey

12 January 2004

Signature of Registered Professional Surveyor

6844

REGISTERED LAND SURVEYOR

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045- 32117	Pool Code 79680	Pool Name West Kutz Pictured Cliffs
Property Code 31057	Property Name FRPC 29	Well Number 4 R Y
OGPD No. 19219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5830'

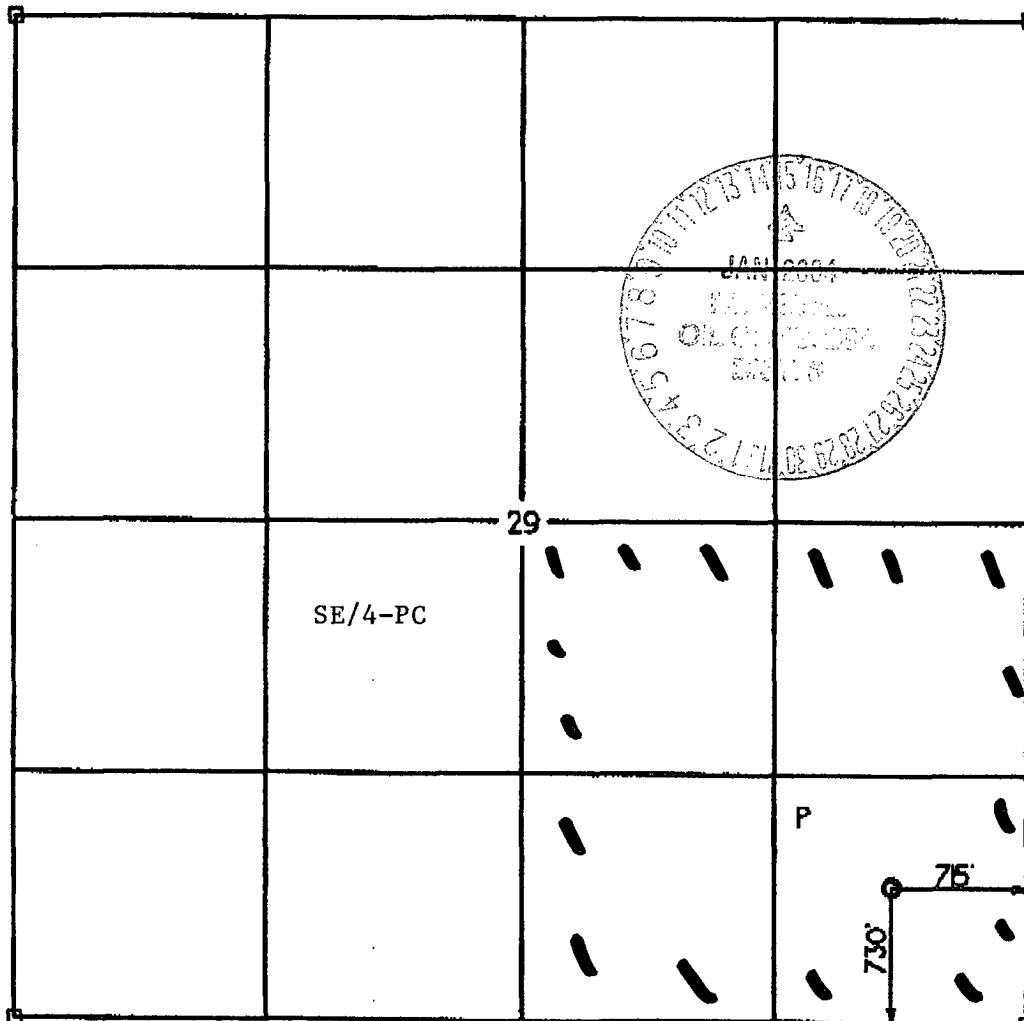
Surface Location

UL or Lot	Sec.	Twp.	Rgn.	Lot Id.	Feet From	North/South	Feet From	East/West	County
P	29	29 N.	13 W.		730'	SOUTH	75'	EAST	SAN JUAN

Bottom Hole Location if Different From Surface

UL or Lot	Sec.	Twp.	Rgn.	Lot Id.	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



OPERATOR CERTIFICATION

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

Signature

Printed Name

Paul Lehrman

Title

Landman

Date

1/12/04

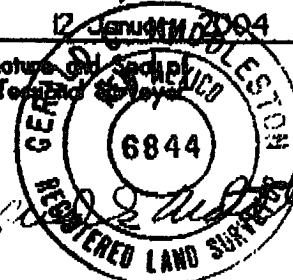
SURVEYOR CERTIFICATION

I hereby certify that the well location 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.

Date of Survey

12 JANUARY 2004

Signature of Registered Professional Surveyor



Richardson Operating Company
FRPC 29 #4R-4Y
730' FSL & 715' FEL
Section 29, T29N, R13W, 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>
Ojo Alamo Ss	000'	5'	+5,830'
Kirtland Shale	150'	155'	+5,680'
Fruitland Formation	1330'	1335'	+4,500'
Pictured Cliffs Ss	1530'	1535'	+4,300'
Total Depth (TD)*	1600'	1605'	+4,205'

*All elevations reflect the ungraded ground level of 5,830'

2. NOTABLE ZONES:

<u>Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland	Ojo Alamo	Fruitland Coal
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. Centralizers will be run through the Ojo Alamo. A turbulizing centralizer will be run at the base of the Ojo Alamo to ensure an adequate cement procedure. 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 less than 1000 psi.

Drilling Program
Richardson Operating Company

Page Two

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	K-55	New	120'
6 1/4"	4 1/2"	10.5	K-55	New	1600'

Surface casing will be cemented to surface with ≈ 100 cu.ft. (≈ 35 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. Forty-five barrels of fresh water will then be circulated. Lead with ≈ 200 cu.ft. (≈ 100 sx) Class B with 2% metasilicate (yield = 2.06 cu.ft./sk, slurry weight = 12.5 ppg). Tail in with ≈ 130 cu.ft. (≈ 115 sx) Class B with 2% CaCl (yield = 1.18 cu.ft./sk, weight = 15.6 ppg). Total cement volume is ≈ 330 cu.ft. based on 100% 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. Six centralizers will be spaced every other joint starting above the shoe. Six 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 run 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 immediately upon approval. It should take 5 days to drill and 5 days to complete the well.