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Form 3160-3  
(September 2001)FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

070 Farmington, NM

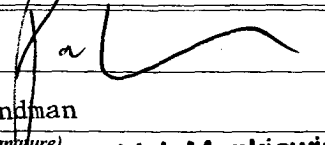
## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMM-080101
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Richardson Operating Company		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 3100 La Plata Hwy, Farm, NM 87401	3b. Phone No. (include area code) 564-3100	8. Lease Name and Well No. Federal 32-17 #3
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1950' FSL & 1585' FEL At proposed prod. zone Same		9. API Well No. 30-045- 31979
14. Distance in miles and direction from nearest town or post office* 12 miles SE of Blanco, NM		10. Field and Pool, or Exploratory Basin Fruitland Coal
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 690'	16. No. of Acres in lease 472.88	11. Sec. T, R, M., or Blk. and Survey or Area Sec. 17-T28N-R8W, NMPM
17. Spacing Unit dedicated to this well S/2 320.00 Acres	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 425'	12. County or Parish San Juan
19. Proposed Depth 2350'	20. BLM/BIA Bond No. on file BLM Nationwide #158293308	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5760 GL	22. Approximate date work will start* Upon apporval	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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 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). | 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 10/21/03
Title Landman		
Approved by (Signature) David J. Mankiewicz	Name (Printed/Typed)	Date JAN 21 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 action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

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

NMOC

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB No. 1004-0135  
Expires January 31, 2004**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMM-080101
2. Name of Operator Richardson Operating Company		6. If Indian, Allottee or Tribe Name N/A NM 89346
3a. Address 3100 La Plata Hwy, Farm, NM 87401	3b. Phone No. (include area code) 564-3100	7. If Unit or CA/Agreement, Name and/or No. N/A 30-045-31979
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1950' FSL & 1585' FEL-Sec. 17-T28N-R8W NWSE		8. Well Name and No. Federal 32-17 #3
		9. API Well No. 30-045- 31979
		10. Field and Pool, or Exploratory Area Basin Fruitland Coal
		11. County or Parish, State San Juan Co., NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Change Well Name</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleting, include subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

NOV 21 2003  
BY lt

Richardson Operating Company requests the name of the well as referenced above be changed from the original APD application, which as the Federal 33-17 #3. Per OCD requirements the infill well must have the same name as the parent well, which is the Federal 32-17 #2. The APD filed on 10/21/03 had the name of the well as the Federal 33-17 #3. Therefore the well name shall be the Federal 32-17 #3. All other information submitted to the BLM will remain the same.

A revised C-102 is attached.

This well has not been drilled.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Paul Lehrman		Title Landman	ACCEPTED FOR RECORD NOV 21 2003
Signature <u>Paul Lehrman</u>		Date 11/18/03	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE			
Approved by <u>/s/ David J. Mankiewicz</u>		Title	FARMINGTON DISTRICT OFFICE NOV 21 2003 BY <u>lt</u> JAN 21 2004
Conditions of approval, if any, are attached. Approval of this notice 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.		Office	

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)

FARMINGTON

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- <b>31979</b>	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code <b>4643</b>	Property Name FEDERAL 32-17	Well Number 3
OGRD No. 19219	Operator Name RICHARDSON OPERATING COMPANY	Elevation 5760'

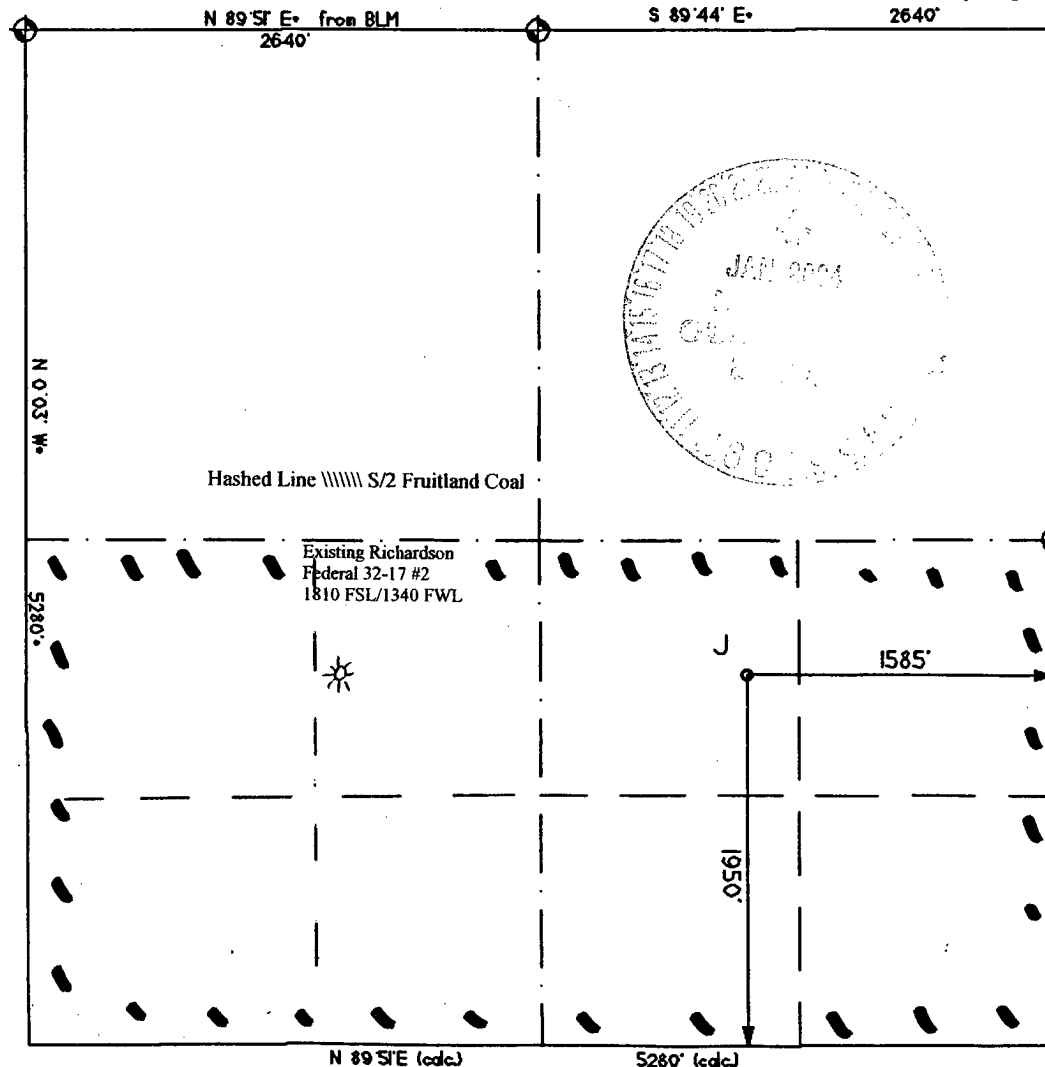
Surface Location

UL or Lot J	Sec. 17	Twp. 28 N.	Rge. 8 W.	Lot Idn.	Feet from > 1950'	North/South South	Feet from > 1585'	East/West East	County SAN JUAN
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Bottom Hole Location if Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot 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



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

10/21/03

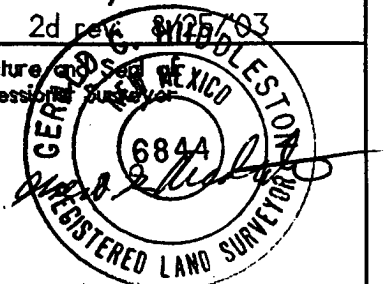
SURVEYOR CERTIFICATION

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

2d rev. 8/12/03

Signature and Seal of Professional Surveyor



**Richardson Operating Company**  
**Federal 33-17 #3**  
**1950' FSL & 1585' FEL**  
**Section 17, T28N, R8W, 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>
Nacimiento	000'	5'	+5,760'
Ojo Alamo Ss	1069'	1074'	+4,691'
Kirtland Shale	1275'	1280'	+4,485'
Fruitland Formation	1850'	1855'	+3,910'
Pictured Cliffs Ss	2150'	2155'	+3,610'
Total Depth (TD)*	2350'	2355'	+3,410'

\*All elevations reflect the ungraded ground level of 5,760'

**2. NOTABLE ZONES:**

Gas Zones

Fruitland

Pictured Cliffs

Water Zones

Ojo Alamo

Coal Zones

Fruitland Coal

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	250'
6 1/4"	4 1/2"	10.5	K-55	New	2350'

Surface casing will be cemented to surface with  $\approx 100$  cu.ft. ( $\approx 85$  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  $\approx 340$  cu.ft. ( $\approx 175$  sx) Class B with 2% metasilicate (yield = 2.06 cu.ft./sk, slurry weight = 12.5 ppg). Tail in with  $\approx 155$  cu.ft. ( $\approx 132$  sx) Class B with 2% CaCl (yield = 1.18 cu.ft./sk, weight = 15.6 ppg). Total cement volume is  ~~$\approx 465$~~  <sup>515</sup> 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  $\approx 520$  psi.

**8. OTHER INFORMATION:**

The anticipated spud date is November 30, 2003. It should take 5 days to drill and 1 week to complete the well.