

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
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1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-103  
Revised March 25, 1999

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-045-30725
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Richardson Operating Company		6. State Oil & Gas Lease No.
3. Address of Operator 3100 La Plata Highway Farmington, NM 87401 505-564-3100		7. Lease Name or Unit Agreement Name: N/A
4. Well Location  Unit Letter D : 732 feet from the North line and 928 feet from the East line  Section 30 Township 30N Range 14W NMPM San Juan County		7. Well No. WF Federal 30 #4
10. Elevation (Show whether DR, RKB, RT, GR, etc.) 5495' UG		9. Pool name or Wildcat Bas. Fr. Coal & Twin Mounds PC

11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

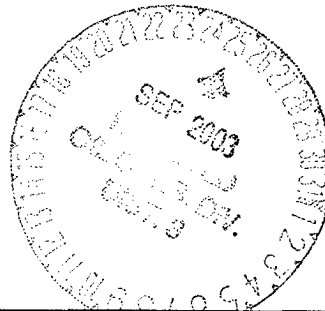
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐  
OTHER: Downhole Commingle Application ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: ☐

12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.

Richardson Operating Company proposes to downhole commingle the Basin Fruitland Coal and Twin Mounds Pictured Cliffs in this well. Please see the attached for details on downhole commingling these "preapproved pools."



OFFC 1311A2

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

SIGNATURE [Signature] TITLE Operations Manager DATE 09/23/2003

Type or print name Drew Carnes

Telephone No. (505) 564-3100

(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. IV DATE SEP 25 2003

Conditions of approval, if any:

Richardson Operating Company  
Downhole Commingling Application

The WF Federal 30 #4 is a newly drilled Basin Fruitland Coal/Twin Mounds Pictured Cliffs well. This well is part of Richardson's development program.

Pursuant to Order R-11363, Richardson Operating company seeks approval to downhole commingle the "Pre-approved pools and areas": Basin-Fruitland Coal (71629) and Twin Mounds Pictured Cliffs (86620) in this well.

The Basin-Fruitland Coal is perforated at 918'-927', 900'-901', and 819'-821'. The Twin Mounds Pictured Cliffs is perforated at 929'-930'.

Due to the intermingled nature of the pools and since neither pool has enough data to prepare a reliable production forecast or predict the ultimate reserves, Richardson Operating Company proposes to allocate the production on a 49/51 basis:

Pictured Cliffs Production =  $0.49 \times \text{Total Production}$ .

Fruitland Coal Production =  $0.51 \times \text{Total Production}$ .

Please see the attached document for the methodology used to determine allocation.

The downhole commingling will not reduce the value of the total remaining production of this well.

Ownership between the two pools is identical.

A copy of this application has been submitted via Sundry Notice Form 3160-5 to the Bureau of Land Management.

## Richardson Operating Company

### Downhole Commingling Allocation Methodology

This document describes the methodology used in determining the allocation between the proposed pools to be commingled in the WF Federal 30 #4 well. Production data was obtained from the OnGard system when possible. The Ropco 4 #3 data was obtained using current production for Richardson Operating Company files. For consistency the average production from the wells was calculated by using a minimum of 6 months of initial production in the well. This average should represent the initial potential of the well. Data was gathered for the Section 4 T29N, R14W and the eight adjacent sections. Analysis was performed in October, 2002.

The data from four sections did not provide a reliable correlation to determine the allocation: Section 34, T29N R14W, Section 5, Section 8, and Section 9 T29N R14W.

#### Section 32 T30N R14W:

Fruitland Coal:	Dugan Bi Knobs Com 90	23 Mcf/day
	Dugan Bi Knobs 91	75 Mcf/day
Pictured Cliffs:	Dugan Bi Knobs 1	52 Mcf/day
	Dugan Bi Knobs 2R	104 Mcf/day
	Richardson WF State 32-1	42 Mcf/day

FC avg. = 49

PC avg. = 66

**Section 32 allocation = 43% FC, 57% PC**

#### Section 33 T30N R14W:

Fruitland Coal:	Richardson WF Federal 33-1	203 Mcf/day
Pictured Cliffs:	Dugan Cline #1R	75 Mcf/day
	Richardson WF Federal 33 #3	555 Mcf/day

FC avg. = 203

PC avg. = 315

**Section 33 allocation = 39% FC, 61% PC**

#### Section 4 T29N R14W:

Commingled FC/PC:	Richardson Ropco 4 #3	425 Mcf/day
Pictured Cliffs:	Richardson Ropco 4 #2	231 Mcf/day
	Richardson Ropco 4 #4	129 Mcf/day

Comm. avg. = 425

PC avg. = 180

**Section 4 allocation = 57% FC, 43% PC**

**Section 3 T29N R14W:**

Fruitland Coal:	Dugan Federal 1 #99	187Mcf/day
	Richardson WF Federal 3 #2	160 Mcf/day

Pictured Cliffs:	Dugan Federal 1 #7	266 Mcf/day
	Richardson WF Federal 3 #1	128 Mcf/day

FC avg. = 174

PC avg. = 160

**Section 3 allocation = 47% FC, 53% PC****Section 10 T29N R14W:**

Fruitland Coal:	Dugan Federal 1 #98	165 Mcf/day
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Pictured Cliffs:	Richardson Ropco 10 #2	115 Mcf/day
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FC avg. = 165

PC avg. = 115

**Section 10 allocation = 59% FC, 41% PC****Summary:****Section 32 allocation = 43% FC, 57% PC****Section 33 allocation = 39% FC, 61% PC****Section 4 allocation = 57% FC, 43% PC****Section 3 allocation = 47% FC, 53% PC****Section 10 allocation = 59% FC, 41% PC****AVERAGE = 49% FC, 51% PC**

**The proposed allocation for the WF Federal 30 #4 will be 49% Fruitland Coal and 51% Pictured Cliffs.**