Form 3160-5 (September 2001)

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

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an

FORM APPROVED OMB No. 1004-01/55 Expires: January 31, 2004

5. I	Lease	Se	rial	N	o.

N	M	JX A	10	1163

llottee or Tribe Name

5.	If	ln	dia	n,	A

abandoned well. Use Form 3160-3 (APD) for such proposals. 7. If Unit or CA/Agreement, Name and/or No.

SUBMITINIA	IPLICATE - Other Instruc	:tions or	ı reverş	7777		
1. Type of Well				Farmingto	MAKS	N/A
Oil Well Gas Well	Other		(O)	SEP 2000	6	8. Well Name and No.
2. Name of Operator			4	CEP 2003	-3	WF Federal 19 #3
Richardson Operating Company			4		<b>65</b>	9. API Well No.
3a. Address		3b. Phone	NO. (inclu	de aren prode DIV	(0)	30-045-31067
3100 La Plata Highway Farming		505-564-3	100	DIST. 3	. 23	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec.,	T, R., M., or Survey Description)		1		~\\\\	B. Fruit. Coal & Twin Mounds PC
1698' FSL & 1931' FWL			W.	>02 02%	Store	11. County or Parish, State
Sec. 19, T30N, R14W			40	06.15.36.36		
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12. CHECK AP	PROPRIATE BOX(ES) TO	INDICAT	E NAT	JRE OF NOT	ICE, RE	PORT, OR OTHER DATA
TYPE OF SUBMISSION			т	VPF OF ACT	ON	

-	Acidize	Deepen	Production (Start/Resume)	Water Shut-Off
✓ Notice of Intent	Alter Casing	Fracture Treat	Reclamation	■ Well Integrity
Subsequent Report	Casing Repair	New Construction	Recomplete	Other Downhole
	Change Plans	Plug and Abandon	Temporarily Abandon	Commingling App.
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal	
3. Describe Proposed or Complete If the proposal is to deepen dire	ed Operation (clearly state all pectionally or recomplete horizon	ertinent details, including estitally, give subsurface location	mated starting date of any proposed and measured and true vertical de	work and approximate duration thereof pths 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 only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.) Twin Mounds

Richardson Operating Company proposes to downhole commingle the Basin Fruitland Coal and Harper Hith Pictured Cliffs in this well. Attached is a copy of the application to downhole commingle these "pre-approved pools", as per NMOCD Rule 303C (3) (b) (vii).

No OCD approval 9-16-03

CONDITIONS OF APPROVAL Adhere to previously issued stipulations.

SEE ATTACHED FOR **CONDITIONS OF APPROVAL** 

14. 1 hereby certify that the foregoing is true and correct Name (PrintedlTyped)				
Drew Carnes	Title (	Operations Manager		
Signature	Date (	09/03/2003		
THIS SPACE F	OR FEDERAL OR	STATE OFFICE USE		
Approved by (Signature)Original Signed: Stephen Ma	son	Name (Printed/Typed)	Title	SEP 1 0 2003
Conditions of approval, if any, are attached. Approval of this noticertify that the applicant holds legal or equitable title to those righwhich would entitle the applicant to conduct operations thereon.	ce does not warrant or its in the subject lease	Office	·	Date

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.

## Richardson Operating Company

## **Downhole Commingling Application**

The WF Federal 19 #3 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 974'-984', 953'-954', and 870'-874'. The Twin Mounds Pictured Cliffs is perforated at 989'-990'.

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:

<u>Pictured Cliffs Production</u> = 0.49 x Total Production. Fruitland Coal Production = 0.51 x 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 19 #3 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:	Duga	n Bi Knobs Com 90	23 Mcf/day
	_	D177 1 04	

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

Pictured Cliffs: Richardson Ropco 10 #2 115 Mcf/day

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 19 #3 will be 49% Fruitland Coal and 51% Pictured Cliffs.

# **Conditions of Approval:**

Notice of Intent: Down hole commingle

Richardson Operating Company WF Federal 19 # 3 1698 FSL & 1931 FWL Sec 19, T30N, R14W API No. 3004531067

Due to the Basin Fruitland Coal and Twin Mounds Pictured Cliffs intervals being Close in proximately to each other, and lack of reliable production history to make accurate determinations. You will be given authorization to produce the well with your proposed Allocation rates until <u>October 1, 2004</u>. At the end of period, you will be required to resubmit your allocations rates to the Farmington Field Office, to the attention of Matt Halbert..