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Submit 3 Copies To Appropriate District State of New Mexico			Form C-103			
Office District I Energy, Minerals and Natural Resources			Revised March 25, 1999			
1625 N. French Dr., Hobbs, NM 88240			WELL API NO.			
District II			30-045-30726			
1301 W. Grand Ave., Artesia, NM 88210 District III 1220 South St. Francis Dr.			5. Indicate Type of Lease			
1000 Rio Brazos Rd., Aztec, NM 87410			STATE	FEE FEE		
District IV 1220 S. St. Francis Dr., Santa Fe, NM			6. State Oil &	Gas Lease No.		
87505						
SUNDRY NOTION (DO NOT USE THIS FORM FOR PROPOSE DIFFERENT RESERVOIR. USE "APPLIC PROPOSALS.) 1. Type of Well: Oil Well Gas Well	7. Lease Name or Unit Agreement Name: N/A					
2. Name of Operator	Outer		7. Well No.			
Richardson Operating Company			WF Federal 31 #2			
3. Address of Operator			9. Pool name or Wildcat			
3100 La Plata Highway Farmingto	on, NM 87401 505-564-31	100	Bas. Fr. Coal & Twin Mounds PC			
4. Well Location						
Unit Letter_D:_	890feet from the North	line and 909_	feet from	n the West	line	
Section 31	Township 30N	Range 14W	NMPM	San Juan	County	
	10. Elevation (Show wheth					
5360' UG						
11. Check A	ppropriate Box to Indica					
NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF				EPORT OF:	1	
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WOR	к 🗆	ALTERING (CASING 🗌	
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRI	LLING OPNS.	PLUG AND ABANDONM	IENT	
PULL OR ALTER CASING	MULTIPLE COMPLETION	CASING TEST AI CEMENT JOB	ND 🗆	, i.b, ii.to 01111		
OTHER: Downhole Commingle App	olication 🗹	OTHER:			Ε.	
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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 "pre-approved pools."						
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111101	310AZ		948879B			
I hereby certify that the information above is true and complete to the best of my knowledge and belief.						
	•					
SIGNATURE	TITL	E_Operations Manager_		_DATE_09/03/	2003	
Type or print name Drew Carnes			Talan	hone No. (505)	564_2100	
(This space for State use)		MCDI Arm.				
(Imo space, for State ase)		reputy onl & Gas inspe E	(TA D *	SEP	25 2003	
APPPROVED BYConditions of approval, if any:	TITL	E	- i uk, dist. 🕮	DATE	~ ~ ZUU3	

Richardson Operating Company

Downhole Commingling Application

The WF Federal 31 #2 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 697'-707', 661'-662', and 603'-607'. The Twin Mounds Pictured Cliffs is perforated at 709'-710'.

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. <u>Fruitland Coal Production</u> = 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.

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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 31 #2 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: Duga

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

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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 31 #2 will be 49% Fruitland Coal and 51% Pictured Cliffs.