# CONSEDVATION DIVISION

	Form	C-103
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STRICT 1 D. Box 1980, Hobbs, NM 88240 P.O. Box 2088		WELL API NO.	WELL API NO. 30-045-30383  5. Indicate Type of Lease STATE FEE	
DISTRICT II Santa Fe, New Mexico 87504-2088 P.O. Drawer DD Artesia, NM 88210				
DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410			6. State Oil & Gas I Federal NMSF	
STINDBY NO	TICES AND DEPORTS (	ON MELLS	rederal MMS1	079900
SUNDRY NOTICES AND REPORTS ON WELLS  (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.)			O A 7. Lease Name or U	nit Agreement Name
1. Type of Well: OIL GAS WELL WELL	OTHER			
<ol><li>Name of Operator Richardson Operating Com</li></ol>	pany		8. Well No.	
3. Address of Operator 3100 LaPlata Highway, Fa			9. Pool name or Wile Basin FC/Twi	dcat .n Mounds FS - PC
4. Well Location				
Unit Letter A : 835	5 Feet From The No.	rth Line and	860 Feet From	The East Line
Section 9	Township 29N	Range 14W	1 11/21 1/1	n Juan County
	10. Elevation (Show 5240 ' UG	whether DF,RKB,RT,GR,etc	.)	
	ppropriate Box to Indic			
NOTICE OF INT	ENTION TO:		SUBSEQUENT RE	PORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WO	DRK L A	LALTERING CASING
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE D	PRILLING OPNS P	PLUG AND ABANDONMENT
PULL OR ALTER CASING		CASING TEST	AND CEMENT JOB	
OTHER: Downhole Commingling	g Application	OTHER:		
12. Describe Proposed or Completed Oper- SEE RULE 1103.	ations. (Clearly state all pertinent	details, and give pertinent da	tes, including estimated date of s	starting any proposed work)
Richardson Operating Compa Mounds Fruitland Sand - PC these "pre-approved" pools	C in this well. Please	e see the attached	Basin Fruitland Coal for details on down	and the Twin hole commingling
Your consideration and app	roval of this applica	tion is appreciate	ed.	
				The state of the s
DHC 964				
1. 1. 1	is true and complete to the best of n			DATE 10/50/02
SIGNATURE Charles Nee	1000	TITLE Agent		DATE
TYPE OR PRINT NAME Charles Nee (This space for State Use)		NEMETY ALL		
APPROVED BY	BA STAND AND STANDS OF THE	· versit # 2 6/	is indicated in	OCT 3 0 2002

Richardson Operating Company ROPCO 9-1 API No. 30-045-30383 835' FNL & 860' FEL Sec 9, T29N, R14W, NMPM San Juan County, New Mexico

## Down-hole Commingling Application (Details)

The Navajo 9-1 is a recently drilled Twin Mounds Fruitland Sand – PC / Basin Fruitland Coal well.

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

The Twin Mounds Fruitland Sand - PC formation is perforated at 888' - 898' in this well. Basin Fruitland Coal formation perforate: 865' - 887'.

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; therefore, based on production from wells in this Township and wells in Sections 32 & 33 or T30N, R14W, Richardson will allocate the production as follows:

<u>FS - PC Production</u> = 0.51 x Total Production. <u>Fruitland Coal Production</u> = 0.49 x Total Production.

\* The data used and the corresponding calculations are attached for reference.

The down-hole commingling will not reduce the value of the total remaining production of this well.

Ownership between the two pools is not identical.

Richardson Operating Company has sent notice to all interest owners in the spacing units by certified mail (return receipt) of their intent to apply for down-hole commingling. No objection was received within 20 days of sending the notice.

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

Your consideration and approval of this application is appreciated.

#### 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 ROPCO 9-1 well. Production data was obtained from the On-Gard system when possible. The POPCO 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 Section 4, T29N, R14W and the eight adjacent sections.

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:

PC avg. = 180

Section 32 1301 (141	T ** * ·	
Fruitland Coal:	Dugan Bi Knobs Com 90	23 Mcf/day
	Dugan Bi Knobs 91	75 Mcf/day
	2	•
Pictured Cliffs:	Dugan Bi Knobs 1	52 Mcf/day
	Dugan Bi Knobs 2R	104 Mcf/day
	Richardson WF State 32-1	42 Mcf/day
	Menandson W1 State 32-1	12 Webau
FC avg. = 49		
PC avg. = 66	Section 32 allocation = 43%	FC, 57% PC
C		
Section 33 T30N R14	<b>4W</b> :	
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
104.6. 515		, <b> ,</b>
Section 4 T29N R14	W:	
	Richardson Ropco 4 #3	425 Mcf/day
Commingiou 1 C/1 C.	radiatason raped 1 113	120 11102 000
Pictured Cliffs:	Richardson Ropco 4 #2	231 Mcf/day
	Richardson Ropco 4 #4	129 Mcf/day
	<b>F</b>	•
Comm. avg. = 425		
	~	EG 430/ BG

Section 4 allocation = 57% FC, 43% PC

## Richardson Operating Company

Downhole Commingling Allocation Methodology (Continued)

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#### 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 ROPCO 9 No.1 will be 49% Fruitland Coal and 51% Pictured Cliffs.