

DATE IN 2/21/01	3/13/01	ENGINEER DC	LOGGED MV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

105431403

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

2895

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Certification

I hereby certify that I, or personnel under my supervision, have reviewed the applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common.

I understand that any omission of data (including API numbers, pool codes, etc.), pertinent information and any required notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Cathleen Colby
 Print or Type Name

Cathleen Colby
 Signature

Land Manager
 Title

2-16-01
 Date

e-mail address

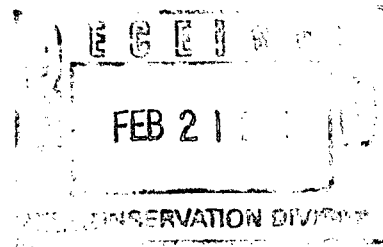


RICHARDSON OPERATING COMPANY

1700 Lincoln, Suite 1700
Denver, Colorado 80203 (303) 830-8000
FAX (303) 830-8009

February 16, 2001

Ms. Lori Wrotenberry
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87504



RE: Downhole Commingle Application
WF Federal 28-3
845' FSL, 1652' FWL 28-30N-14W
San Juan County, NM
Basin Fruitland Coal and Harper Hill
Pictured Cliffs

Dear Ms. Wrotenberry:

This is a request for administrative approval for downhole commingling of the production from the captioned formations.

We have attached for your review, an acreage plat outlining the dedicated acreage and a proposed allocation formula with a short discussion of the history of the well.

The Bureau of Land Management is being notified of this application by certified return receipt mail. A copy of this letter to the BLM is also enclosed.

Thank you for your consideration and approval of this application. If you have any questions or concerns please do not hesitate to contact the undersigned.

Sincerely,

Cathleen Colby
Land Manager

CC/cos
enclosures

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87504

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-A
Revised May 15, 2000

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87505

APPLICATION TYPE
☒ Single Well
Establish Pre-Approved Pools
EXISTING WELLBORE
☐ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Richardson Operating Company 1700 Lincoln St., Suite 1700, Denver, CO 80203
Operator Address
WF Federal 28 #3 N 28-30N-14W San Juan
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No 019219 Property Code 24567 API NO. 30-045-30379 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal		Harper Hill Pictured Cliffs
Pool Code	71629		78160
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	992'-998'; 1002'-1010'		1013'-1025'
Method of Production (Flowing or Artificial Lift)	to be determined		to be determined
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	200		200
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1000		1000
Producing, Shut-In or New Zone	shut-in waiting on pipeline		shut-in waiting on pipeline
Date and Oil/Gas/Water Rates of Last Production (Note: For new zones with no production history applicant shall be required to attach production estimates and supporting data)	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production supporting data or explanation will be required.)	Oil Gas % %	Oil Gas % %	Oil Gas % %

ADDITIONAL DATA

Are all working, royalty and overriding interests identical in all commingled zones? Yes ☒ No ☐
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐
Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐
Will commingling decrease the value of production? Yes ☐ No ☒
If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application? Yes ☒ No ☐
NMOCD Reference Case No. applicable to this well: _____

Attachments:
C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
Production curve for each zone for at least one year. (If not available, attach explanation.)
For zones with no production history, estimated production rates and supporting data.
Data to support allocation method or formula.
Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
Any additional statements, data, or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application
Bottomhole pressure data.

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

SIGNATURE Cathleen Colby TITLE Land Manager DATE 2/16/01
TYPE OR PRINT NAME Cathleen Colby TELEPHONE NO. (303) 830-8000

Richardson Operating Company
WF Federal 28-3
Commingling Application

The WF Federal 28-3 is a newly drilled Basin Fruitland Coal/Harper Hill Pictured Cliffs well. This is part of Richardson's development program in their WF (West Farmington) field. This is the second Pictured Cliffs and Fruitland Coal well in this section. The first such well in the section is Richardson's WF Federal 28-1 (Unit A, Sec. 28, T30N, R14W), which was approved for downhole commingling of the Fruitland Coal and Pictured Cliffs formations in Administrative Order DHC-2435. Richardson also has two Pictured Cliffs wells in this Section. The WF Federal 28-2 (Unit J, Sec. 28, T30N, R14W) first delivered January 9, 2000. The WF Federal 28-4 (Unit F, Sec. 28, T30N, R14W) has been drilled, but is not yet producing.

Based on recent Richardson Operating wells in this township, it is anticipated that both zones will have similar bottom hole pressures of approximately 200 psi. Both zones produce some water and no liquid hydrocarbons. Neither zone is fluid sensitive and fluids from the two zones are compatible.

Since neither zone has enough data to prepare a reliable production forecast, or predict the ultimate reserves, Richardson Operating proposes to allocate the production based on the initial production rates from the Pictured Cliffs. The well will be perforated and stimulated in the Pictured Cliffs formation. The stimulation will then be cleaned up and the well flow tested. The production based on the flow test will establish the Pictured Cliffs base rate. The Fruitland Coal formation will be completed separately but it will be produced with the Pictured Cliffs. The Fruitland Coal production will be the total measured production minus the Pictured Cliffs production.

Assuming a 7% decline rate from the Pictured Cliffs, the proposed allocation formula is as follows:

Pictured Cliffs Production = Pictured Cliffs base rate $\times e^{(-Dt)}$, where $D = 7\%/yr$ and $t =$ time in years since first production.

Fruitland Coal Production = Total Production – Pictured Cliffs production.

State of New Mexico
Energy, Minerals & Mining Resources Department

Form C - 102

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

200 SEP 21 AM 11:40

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

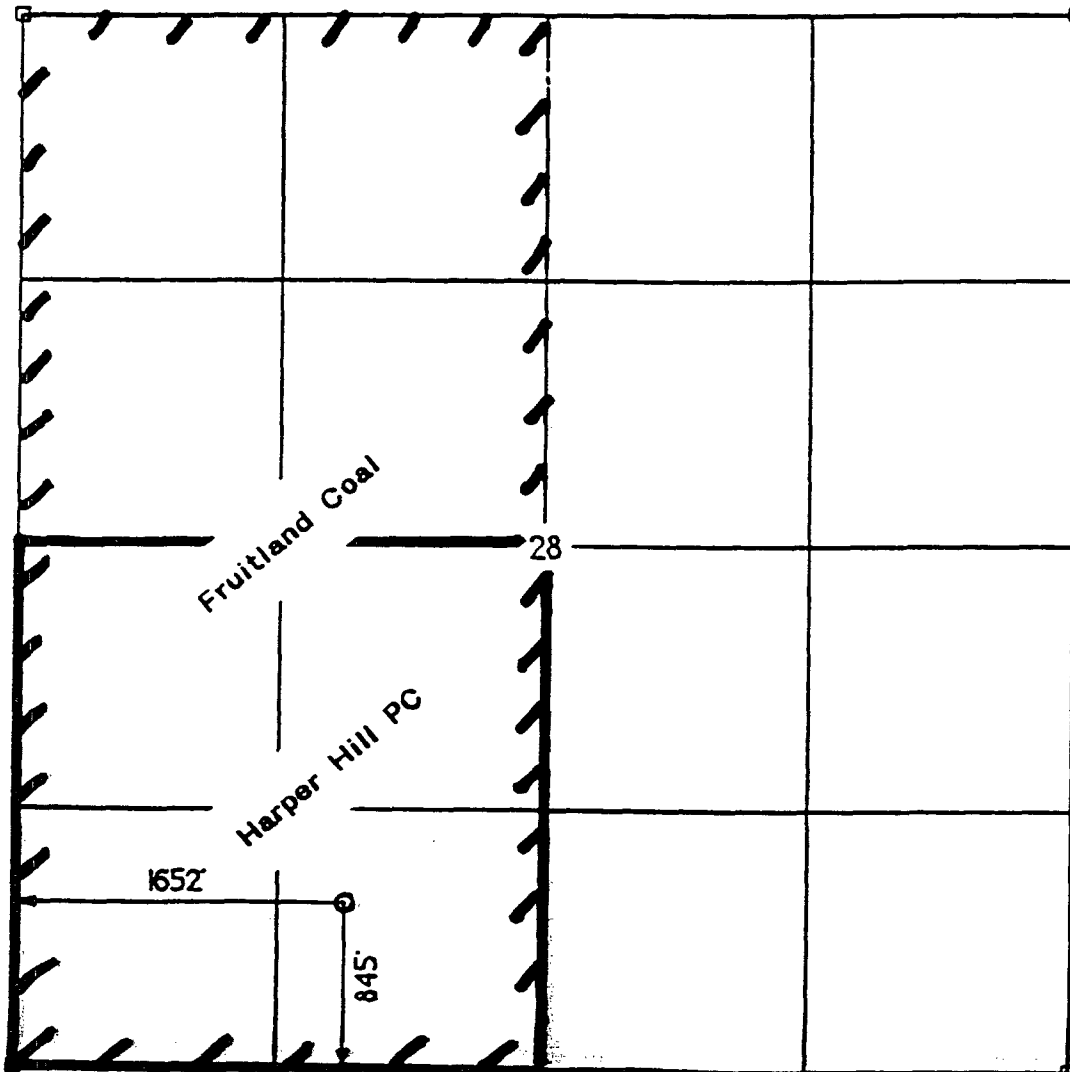
APA Number	Pool Code	Pool Name
	71629 & 78160	FRUIT. COAL & HARPER HILL PC
Property Code	Property Name	Well Number
	WF FEDERAL	28 - 3
OGRD No.	Operator Name	Elevation
019219	RICHARDSON OPERATING COMPANY	5520'

Surface Location									
UL or Lot	Sec.	Twp.	Rge.	Lot Id.	Feet from	North/South	Feet from	East/West	County
N	28	30 N.	14 W.		845	SOUTH	1652	WEST	SAN JUAN

Bottom Hole Location if Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Id.	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



<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature <i>Brian Wood</i></p> <p>Printed Name BRIAN WOOD</p> <p>Title CONSULTANT</p> <p>Date SEPT. 15, 2000</p>	
<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey</p> <p>AUGUST 11, 2000</p> <p>Signature and Professional Seal</p> <p>NEW MEXICO</p> <p>REGISTERED SURVEYOR</p> <p>6844</p> <p><i>Photo MARRIED LAM SURVEY</i></p>	

Richardson Operating Company
WF Federal 28-3

FRUITLAND COAL FORMATION:

Township 30 North, Range 14 West
Section 28: W/2
Containing 320.00 acres, more or less
San Juan County, NM

Working Interest:
Richardson Production Company

Royalty Interest:
USA NMNM-97843

Overriding Royalty Interest:
Yates Petroleum Corporation
Yates Drilling Company
Abo Petroleum Corporation
Myco Industries, Inc.

PICTURED CLIFFS FORMATION:

Township 30 North, Range 14 West
Section 28: SW/4
Containing 160.00 acres, more or less
San Juan County, NM

Working Interest:
Richardson Production Company

Royalty Interest:
USA NMNM-97843

Overriding Royalty Interest:
Yates Petroleum Corporation
Yates Drilling Company
Abo Petroleum Corporation
Myco Industries, Inc.



RICHARDSON OPERATING COMPANY

1700 Lincoln, Suite 1700
Denver, Colorado 80203 (303) 830-8000
FAX (303) 830-8009

February 16, 2001

Bureau of Land Management
1235 La Plata Highway
Farmington, NM 87401

Attention: Minerals

RE: Downhole Commingling Application
WF Federal 28-3
845'FSL, 1652'FWL-Sec. 28-30N-14W
San Juan County, NM
Basin Fruitland Coal and Harper Hill
Pictured Cliffs

Gentlemen:

Enclosed you will find a copy of the above referenced application that has been submitted to the New Mexico Oil Conservation Division for administrative approval. You are being notified of this application for concurrent approval.

If you desire to submit remarks concerning the application, please send them to Ms. Lori Wrotenberry, Director, New Mexico Oil Conservation Division, 1220 S. St. Francis Dr., Santa Fe, New Mexico 87504 within 20 days from receipt of this notice. If you have no objection to the proposal, concurrent approval is requested.

Thank you for your consideration in this matter. If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Cathleen Colby
Land Manager

CC/cos
enclosures