

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [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]

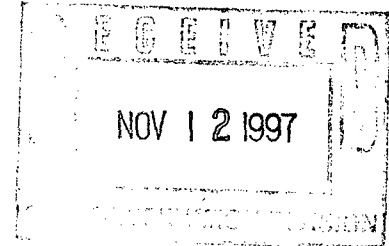
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
☐ NSL ☐ NSP ☐ DD ☐ 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 - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all 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, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Robin S. McCarley
Print or Type Name

Robin S. McCarley
Signature

Technical Assistant
Title

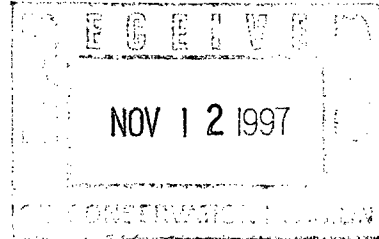
11/07/97
Date



Arch Petroleum Inc.

November 6, 1997

State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505-6429



Re: C. D. Woolworth Lease, Well #4
Unit L, Section 30-T24S, R37E
Lea County, New Mexico

Gentlemen:

Your administrative approval is requested for an exception to Rule 303-C to permit down-hole commingling of Jalmat Yates Seven Rivers and Langlie Mattix Seven Rivers Queen production in the subject well.

Please find enclosed all pertinent data regarding this application as outlined in Rule No. 303-C.

Sincerely,

Robin S. McCarley
Technical Assistant

Enclosures

cc: State of New Mexico
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240-1980

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
811 South First St., Artesia, NM 88210-2835
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A
New 3-12-96

APPROVAL PROCESS:

Administrative Hearing

EXISTING WELLBORE

X YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

Arch Petroleum Inc. 10 Desta Drive, Suite 420E Midland, Texas 79705
Operator Address

C. D. Woolworth 4 L 30 24S 37E Lea
Lease Well No. Unit Ltr. - Sec - Twp - Rge County

OGRID NO. 000962 Property Code 014899 API NO. 30-025-25464 Spacing Unit Lease Types: (check 1 or more)
Federal State (and/or) Fee X

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	(33820) Jalmat Tansill		(37240) Langlie Mattix
2. Top and Bottom of Pay Section (Perforations)	3190 - 3335		3414 - 3662
3. Type of production (Oil or Gas)	Oil		Oil
4. Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 1400 b. (Original)	a. b.	a. 1450 b.
6. Oil Gravity (° API) or Gas BTU Content	35.6		26.5
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give 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 * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates: 11/05/97 5 BO 69 MCF 60 BW	Date: Rates: 	Date: Rates: 07/02/97 2 BO 13 MCF 10 BW
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 72 % Gas: 86 %	Oil: % Gas: %	Oil: 28 % Gas: 14 %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? X Yes No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes No

11. Will cross-flow occur? Yes X No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. Yes No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? X Yes No

13. Will the value of production be decreased by commingling? Yes X No (If Yes, attach explanation)

14. 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. X Yes No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). DHC-1480

16. 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 all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Robin S. McCarley TITLE Technical Asst. DATE 11/07/97

TYPE OR PRINT NAME Robin S. McCarley TELEPHONE NO. (915) 685-1961

ARCH PETROLEUM INC.

C. D. WOOLWORTH #4

Approval is requested for an exception to Rule 303-C to permit down-hole commingling of the Jalmat Yates Seven Rivers and Langlie Mattix Seven Rivers Queen production in the subject well.

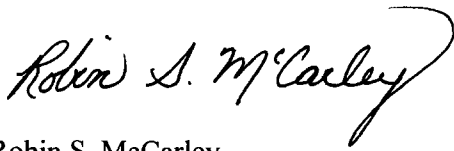
The C. D. Woolworth lease has permission to surface commingle other production from the Jalmat and Langlie Mattix zones as well as permission to down-hole commingle production from these zones in our C. D. Woolworth #5 well under Administrative Order DHC-1480.

This Langlie Mattix is currently being pumped into a tank.

The fluids show no evidence of incompatibility; therefore, down-hole commingling is not expected to result in reservoir damage. Ownership in the two pools is common and correlative rights will not be violated.

Should secondary recovery operations become practical in the future, the two zones could be separated at such time without damaging either reservoir.

Offset operators have been notified of the intent to down-hole commingle the subject well by letter dated October 2, 1997.



Robin S. McCarley
Technical Assistant

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-25464	² Pool Code 37240/33820	³ Pool Name Langlie Mattix/Jalmat Oil
⁴ Property Code 014899	⁵ Property Name C. D. Woolworth	⁶ Well Number 4
⁷ OGRID No. 000962	⁸ Operator Name Arch Petroleum, Inc.	⁹ Elevation 3265

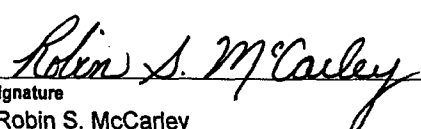
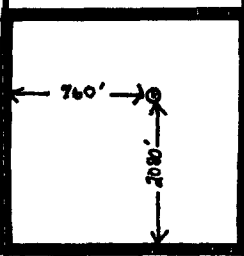
¹⁰Surface Location

UL or lot no. L	Section 30	Township 24S	Range 37E	Lot Idn	Feet from the 2080	North/South line South	Feet from the 760	East/West Line West	County Lea
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¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
¹² Dedicated Acres 40.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶					¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>  Signature Robin S. McCarley Printed Name Technical Assistant Title 09-22-97 Date
					¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown 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.</i> Date of Survey Signature and Seal of Professional Surveyer: Certificate Number

Lease	C. D. WOOLWORTH		Well No.	4	
Location	2080	FSL	and	760	FWL
Unit	L	Section	30	Township	24S
Range	37E	County	Lea	State	NM

GE 3265
 KB to GE 13'
 DF

Completion date 10-Apr-77

Initial Formation LANGLE MATTIX

From 3414' to 3662'
 BOPD GAS BWPD

Initial Production 48 81

Surface Casing

8-5/8" OD Surface
 Set @ 365 ft
 Cmt with 300 sx
 Cmt circulated YES

Completion Data:

1977 LANGLE MATTIX 3414-16,3454-56,3502-04,3563-65,
 3592-94,3628-30,3660-62

Subsequent Workovers or Reconditionings:

1997 JALMAT PERFS ADDED :
 3190' - 3371', 2 JHPF, TOTAL OF 24 HOLES
 ACIDIZED W/120 GAL. 15% HCL NEFE ACID
 FRAC W/27,000 GAL. SFG 3000 AND 38,000 # 20/40 SAND

10/97 SET RETRIEVABLE BRIDGE PLUG AND BEGAN
 TESTING JALMAT COMPLETION

JALMAT PERFS
 3190-3371'

LANGLIE MATTIX PERFS
 3414-3662'

PBTD 3680'
 TD 3700'

Production Casing

4 1/2" OD
 9 1/2" #
 Grade K-55
 Set @ 3700 ft
 Cmt with 1100 sx
 TOC @ SURF

EXHIBIT 1

OFFSET OPERATORS

DHC - C. D. Woolworth #4
Unit L, Sec. 30, T24S, R37E
Lea County, New Mexico



Conoco, Inc.
P. O. Box 2197
Houston, TX 77079-1175



Doyle Hartman
500 North Main
Midland, Texas 79701



Burlington Resources
P. O. Box 4239
Midland, Texas 77210-4239



Texaco E & P Inc.
4601 DTC Boulevard
Denver, CO 80237-2549

November 6, 1997





Arch Petroleum Inc.

November 6, 1997

Re: DHC - C. D. Woolworth #4
Unit L, Sec. 30, T23S, R37E
Lea County, New Mexico

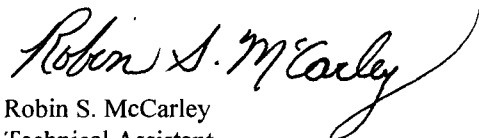
To: All Offset Operators

We are enclosing our application to down-hole commingle the production from the Langlie Mattix and Jalmat zones in the above well.

We have previously obtained permission to down-hole commingle these same zones in our C. D. Woolworth #5 and #6.

If you have any questions, please call me at (915) 685-1961.

Sincerely,



Robin S. McCarley
Technical Assistant

Enclosures



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

DHC-1763

GOVERNOR

11/19/97

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	
DHC	X
NSL	
NSP	
SWD	
WFX	
PMX	

Gentlemen:

I have examined the application for the:

Arch Petroleum Inc CD Woolworth #4-L-3D-24-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

None

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1

/ed