

DHC

2/3/97



Arch Petroleum Inc.

January 2, 1997

New Mexico Oil Conservation Division
Energy and Minerals Department
P. O. Box 2088
Santa Fe NM 87501

Re: C. D. Woolworth #6
Unit M., 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,

Bobbie Brooks
Production Analyst

Enclosures

cc: New Mexico Oil Conservation Division
P. O. Box 1980
Hobbs NM 88240

33820
ARCH PETROLEUM INC

C. D. WOOLWORTH #5
37204

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 and we have permission to commingle these zones in our C. D. Woolworth #6 well..

The Jalmat is currently being pumped into a tank and the Langlie Mattix is plugged off with a CIBP.

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 January 2, 1997.

Bobbie Brooks
Bobbie Brooks - Production Analyst
1/2/97

Jalmat 80/
10000

EXHIBIT 1

DHC - C. D. Woolworth #5
Unit M, Sec. 30, T24S, R37E,
Lea County, New Mexico

OFFSET OPERATORS

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

Lanexco
P. O. Box 2730
Midland TX 79702-2730

ARCO Permian
P. O. Box 1610
Midland TX 79702

Doyle Hartman
500 North Main
Midland TX 79701

Meridian Oil Inc.
P. O. Box 4239
Houston TX 77210-4239

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



Arch Petroleum Inc.

CERTIFIED-RETURN RECEIPT

January 2, 1997

Re: DHC - C. D. Woolworth #5
Unit M, Sec. 30, T24S, R37E,
Lea County, New Mexico

To: All offset operators

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

We have previously obtained permission to downhole commingle these same zones in our C. D. Woolworth #6.

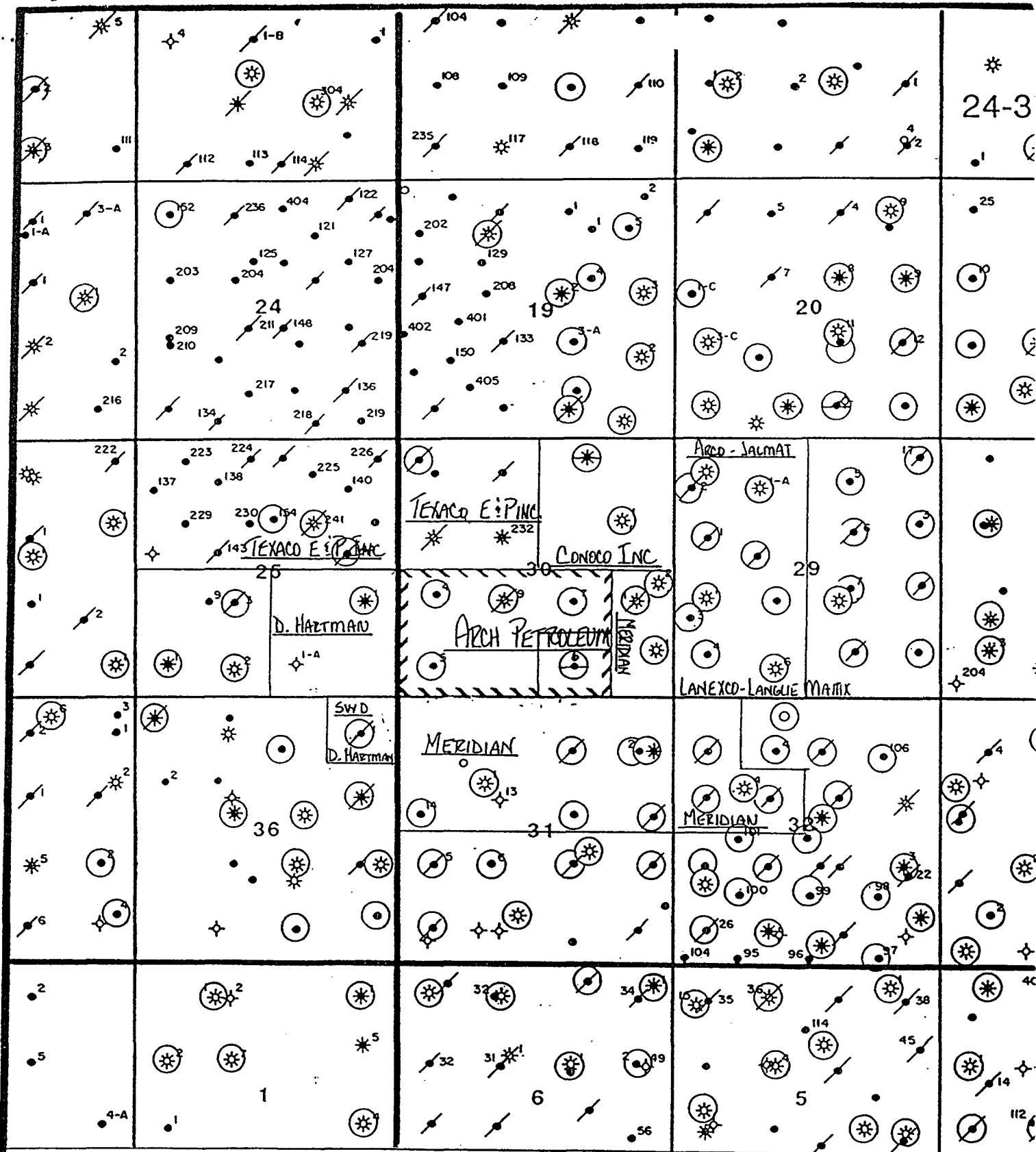
If you have any questions, please call me at 915-685-1961.

Sincerely,

A handwritten signature in cursive script that reads 'Bobbie Brooks'. The ink is black and the signature is fluid.

Bobbie Brooks
Production Analyst

Enclosures



C.D. WOOLWORTH LEASE

EXHIBIT 3

Lease	C. D. Woolworth		Well No.	5	
Location	660'	FSL	and	660'	FWL
Unit	M	Section	30	Township	24S
Range	37E	County	Lea	State	NM

GE 3261'
KB to GE 13'
DF to GE

Completion date 21-Mar-78

Initial Formation Langlie Mattix

From 3406' to 3692'
MCFPD

Surface csg		
9/5/08	" OD Surface	
Set @	371	ft
Cmt with	250	sx
Cmt circulated	yes	

= 3169
= 3178
= 3180
= 3182
= 3204
= 3246
= 3248
= 3262
= 3264
= 3318
= 3327
= 3329
= 3339
= 3357
= 3359
= 3361
= 3363

Jalmat Oil Perfs.

EXHIBIT 5

ARCH PETROLEUM INC.
DHC C. D. WOOLWORTH #5
JALMAT TANSILL 7RQ & LANGLIE MATTIX
WELL HISTORY

2/27/78 The well was drilled to a total depth of 3,750'. 9-5/8" casing was set @ 371' and cement was circulated to surface. 4-1/2" intermediate casing was set @3,750' and cemented. Cement was circulated..

3/21/78 Initial completion. The well was perforated in the Langlie Mattix from 3,406'-3,692'. 2 1/2" JHPF The well was completed with 6,4000 gal. 15% NE HCL acid - 7/8" RCNBS, Frac. W/ 29,504 gal. Foam pad & 1-2# 20-40 SPG. Langlie Mattix initial production began 3-21-78.

9/1/94 Added Pay in Jalmat. Set a CIBP @ 3,390' & dumped 2 sx cmt on top. Perforated f/3,169 - 3,363' w/2- 0.5" JHPF. Spot 100 gal 15% NEFE HCL acid across perms. Acidized with 4,000 gals 15% NEFE HC. Drop 51 - 1.3 RCN ball sealers. Flush and swab. Frac treat with 48,500 gals. 40# gel with 50% CO2 and 165,000# 16/30 mesh Brady sand.. POH with workstring. Ran in hole with production equipment, returned well to production on 10/21/94..

1/97 Propose to drill out CIBP and clean out to 3,696' and downhole commingle production from Jalmat and Langlie Mattix production.

EXHIBIT 6

ARCH PETROLEUM INC.

DHC - C. D. WOOLWORTH #6

JALMAT AND LANGLIE-MATTIX POOLS

RULE 303 ©(2)

- A. **Operator:** Arch Petroleum Inc., 10 Desta Drive, Suite 420E, Midland, Texas 79705.
- B. **Lease, Well and Location:** C. D. Woolworth #5, Unit M, 660' FSL, 660' FWL, Section 30, T24S, R37E, Lease County, New Mexico.
- C. **Plats** showing dedicated acreage and offset ownership - Exhibit 2 and 3.
- D. **Production decline:** The Jalmat gas is expected to decline 5.2% per year after an IP of 8 MCFPD while the oil will decline 9.5% per year after an IP of 1 BOPD. The Langlie Mattix gas is expected to decline 4.2% per year after an IP of 9 MCFPD while the oil will decline 7.3% per year after an IP of 1 BOPD.
- E. **Bottom Hole Pressure:** Jalmat BHP at 3390' is estimated to be 202 psi. Langlie Mattix BHP at 3696' is estimated to be 242 psi.
- F. **Fluid Characteristics:** The Jalmat and Langlie Mattix are currently commingled in surface storage facilities on the C. D. Woolworth lease per commingling Order PC683 dated 12-10-84. To date, there has been no evidence of fluid incompatibility.
- G. **Value of Commingled Fluids:** Jalmat and Langlie Mattix oil production is currently being commingled in surface storage facilities on the subject lease. Down-hole commingling will not effect the price. Exhibit 8 shows the relative value of commingled and non commingled liquids produced on the lease.
- H. **The suggested allocation** of produced hydrocarbons is based on the percentage of oil and gas by our latest well tests.

	Jalmat	Langlie Mattix
Oil	50%	50%
Gas	47%	53%

- I. **Statement of Notification** - Exhibit 1

EXHIBIT 7

C. D. WOOLWORTH LEASE, TANK BATTERY SECTION 30-T24S-R37E LEA COUNTY, NEW MEXICO

WELLS AND POOL	PRODUCTION		TOTAL	AVG. BOPD
	OCT. 96	NOV. 96		
JALMAT	1000	889	1889	31
LANGLIE MATTIX	1087	1090	2177	36
	BOPD	GRAVITY	\$/BBL	\$/DAY
JALMAT	31	35.5	\$ 21.885	\$ 678.44
LANGLIE MATTIX	36	35.9	\$ 21.885	\$1116.01
TOTAL				\$1794.45
COMMINGLED	67	35.7	\$ 21.885	\$1794.45
	DIFFERENCE			-0-

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 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 30-025-25790		2 Pool Code 33820/37240		3 Pool Name Jalmat/Langlie Matatix 7RQ	
4 Property Code 014899		5 Property Name C. D. WOOLWORTH			6 Well Number 5
7 OGRID No. 000962		8 Operator Name ARCH PETROLEUM INC.			9 Elevation 3261' GL

10 Surface Location

UL or lot no. M	Section 30	Township 24S	Range 37E	Lot Idn	Feet from the 660	North/South line South	Feet from the 660	East/West line West	County Lea
--------------------	---------------	-----------------	--------------	---------	----------------------	---------------------------	----------------------	------------------------	---------------

11 Bottom 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	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 hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <i>Bobbie Brooks</i> Signature Bobbie Brooks Printed Name Production Analyst Title 1-2-97 Date			
	18 SURVEYOR CERTIFICATION 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. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number			