

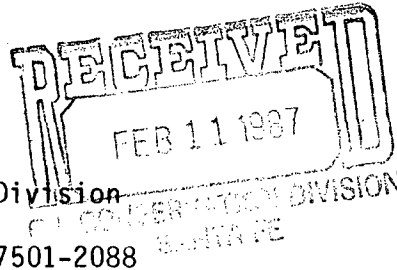


**Union Texas Petroleum**

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

February 9, 1987

Mr. William J. LeMay  
N.M. Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501-2088



Re: Jicarilla H #12M  
1695' FSL; 990' FEL  
Section 17, T26N-R4W  
Rio Arriba County, NM

Dear Mr. LeMay:

Union Texas Petroleum Corporation is applying for an administrative downhole commingling order for the referenced well in the Basin Dakota, Wildhorse Gallup and Blanco Mesaverde fields, as per Order #R-7508. The ownership of the zones to be commingled is common. The offset operators are Amoco, Southern Union, Meridian Oil and Columbus Energy. The Bureau of Land Management and these offset operators will receive notification of this proposed downhole commingling.

The referenced well was completed on November 30, 1986. The Dakota zone was perforated with 29 holes from 7650' to 7729' and fraced with 100,000# of sand in 20# crosslinked gel water. The Gallup interval was perforated from 7063' to 7073' with 4 shots per foot and fraced with 40,000# of sand in slick water. The Mesaverde was perforated from 5002' to 5600' with 31 holes and fraced with 150,000# of sand in slick water.

The attached initial potential test, which includes all three zones together, indicates that this well is only marginal with a Q=1124 MCF/D and a CAOF of 2318 MCF/D. Pitot test gauges during the well's completion operations indicate that all three producing intervals contribute to the total production: Mesaverde 43%, Gallup 25%, and Dakota 32%. Since the well is cased with only 4-1/2" pipe, to triple complete would be impossible. A dual completion would introduce waste since at least one side would be too weak to produce, or one interval would have to be squeezed, or both.

The following table lists other wells on our Jicarilla H lease that are commingled. These wells have not experienced any detrimental effects due to the commingling.

<u>Well</u>	<u>Location</u>	<u>Formation</u>	<u>Commingled Date and Order</u>
Jicarilla H #7	K 19 26 4	Gal-DK	9/81 R-5861
Jicarilla H #7E	D 19 26 4	MV-Gal-DK	4/84 R-7508
Jicarilla H #12	A 17 26 4	Gal-DK	4/84 R-7509
Jicarilla H #8	K 19 26 4	Gal-DK	8/85 DHC-562

The reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed downhole commingling. The fluids from each zone are compatible and no precipitates will be formed to cause damage to either reservoir. The daily production will not exceed the limit of Rule 303c, Section 1a, Part 1. Both fluids have an API oil gravity close to 58°. The initial shut-in casing pressures for the Mesaverde, Gallup and Dakota are 900 psi, 950 psi and 1550 psi, respectively.

The District Office in Aztec will be notified anytime the commingled well is shut-in for seven (7) consecutive days.

To allocate the commingled production to each of the zones, Union Texas Petroleum will consult with the District Supervisor of the Aztec District Office of the Division to determine an allocation formula for each of the productive zones.

Included with this letter is a plat showing ownership of offsetting leases, letters to the offset operators, wellbore diagram, and data sheet.

Yours truly,



P. M. Pippin  
Production Engineer

PMP:lmg

cc: Frank Chavez-OCD

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP O BOX 21088  
SANTA FE, NEW MEXICO 87501Form C-122  
Revised 10-1-78

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date: 2/4/87	
Company: Union Texas Petroleum Corp.			Connection: Gas Company of New Mexico		
Pool: Blanco/Wild Horse/Basin			Formation: Mesaverde/Gallup/Dakota		Unit:
Completion Date: 12/18/86		Total Depth: 7850	Plug back TD: 7800	Elevation: 6702 G.L.	Farm or Lease Name: Jicarilla "H"
Csg. Size: 4.50	Wt.: 23.0	d: 6.366	Set At: 3700	Perforations: From 5002 To 7729	Well No.: 12M
Tub. Size: 2.375	Wt.: 4.7	d: 1.995	Set At: 7686	Perforations: From 7654 To 7660	Unit: I Sec. 17 Twp. 26N Rye. 4W
Type well - Single - Fractured - G.G. or G.O. Multiple: Gas - Gas-Multiple				Prover Set At:	County: Rio Arriba
Producing Thru: Tubing		Reservoir Temp. °F: 8	Mean Annual Temp. °F:	Baro. Press. - P <sub>g</sub> : 12	State: New Mexico
L: 7654	H:	G <sub>g</sub> : 0.690	% CO <sub>2</sub> :	% N <sub>2</sub> :	% H <sub>2</sub> S: Prover: Meter Run: Taps:

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI	2"		3/4"				626		563		7 days
1.							85	62°	490	62°	3 hours
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>L</sub>	Gravity Factor F <sub>g</sub>	Super. Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd
1	12.3650		97	0.9981	0.9325	1.007	1124
2							
3							
4							
5							

NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2					Specific Gravity Separator Gas _____ X X X X X X X X
3					Specific Gravity Flowing Fluid _____ X X X X X
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

NO.	P <sub>c</sub>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	638	502	252,004	155,040	2.6254	2.0624
2						
3						
4						
5						

Absolute Open Flow: 2318 Mcfd @ 15.025				Angle of Slope @ _____ Slope, n. 0.75	
Remarks: _____					
Approved By Division		Conducted By: Bruce Voiles		Calculated By: John C. Rector	
				Checked By:	


UNION TEXAS PETROLEUM CORPORATION

Jicarilla H #12M

Mesaverde-Gallup-Dakota Commingle Application

Rio Arriba County

New Mexico

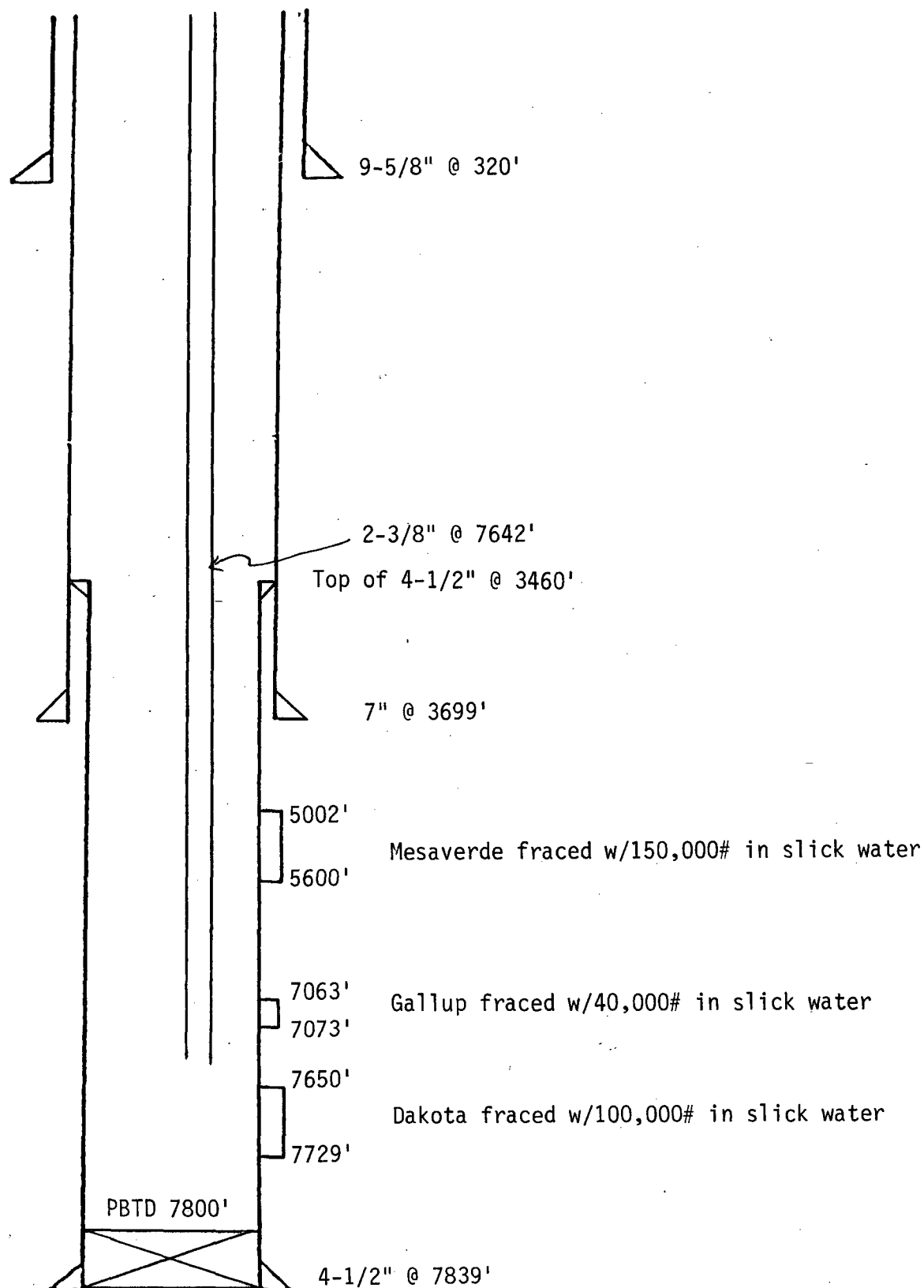
8 Meridian Columbus		9  Amoco	T26N
17  UTP		16  So. Union	
20  UTP		21  So. Union	

R4W

# WELL BORE DIAGRAM FOR

Jicarilla H #12M

1695' FSL; 990' FEL  
Section 17, T26N-R4W  
Rio Arriba County, NM  
Elevation: 6706' G.L.



# WORKOVER DATA SHEET

WELL NAME Jicarilla H #12M

DATE 2/09/87

LOCATION 1695' FSL; 990' FEL, Section 17, T26N-R4W  
Rio Arriba County, New Mexico

DATUM KB (12' above G.L.)

ELEVATION 6707' G.L.

TOTAL DEPTH 7839'

FIELD FORMATION Blanco Mesaverde  
Wildhorse Gallup  
Basin Dakota

UNICON W.I. 50%

COMPLETED

11-30-86

INITIAL POTENTIAL

SICP = 626 PSI  
Q = 1124 MCF/D  
AOF = 2318 MCF/D

PLUG BACK TOTAL DEPTH

7800'

CASING RECORD

CASING SIZE

WT. & GRADE

DEPTH SET

CEMENT

TOP CEMEN

9-5/8"

40.0# K-55

320'

175 sxs

Circ. cmt

7"

23.0# K-55

3699'

305 sxs

Top cmt @2500'

4-1/2"

10.50# K-55

3460'-7839'

550 sxs

Circ. cmt

TUBING RECORD

2-3-8"

4.7# J-55

7642'

WELL HEAD

LOGGING RECORD

Induction and Neutron Density

STIMULATIONS

Dakota (7650'-7729') w/29 holes & fraced w/100,000# sand in 20# crosslinked gel water.

Gallup (7063'-7073') w/4 spf & fraced w/40,000# sand in slick water.

Mesaverde (5002'-5600') w/31 holes & fraced w/150,000# sand in slick water.

WORKOVER HISTORY

None

PRODUCTION HISTORY

None



**Union Texas Petroleum**

February 9, 1987

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Bureau of Land Management  
Caller Service 4104  
Farmington, New Mexico 87499

Gentlemen:

Union Texas Petroleum Corporation is in the process of applying for a downhole commingling order for their Jicarilla H #12M well located 1695' FSL, 990' FEL, Section 17, T26N-R4W, N.M.P.M., Rio Arriba County, New Mexico, in the Basin Dakota, Wildhorse Gallup and Blanco Mesaverde.

The purpose of this letter is to notify you of such action. If you have no objections to the proposed commingling order, we would appreciate your signing the attached copy of this letter and returning it to this office.

Your prompt attention to this matter would be appreciated.

Yours truly,

P. M. Pippin  
Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_



**Union Texas Petroleum**

February 9, 1987

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Amoco Production Company  
501 Airport Drive  
Farmington, New Mexico 87401

Gentlemen:

Union Texas Petroleum Corporation is in the process of applying for a downhole commingling order for their Jicarilla H #12M well located 1695' FSL, 990' FEL, Section 17, T26N-R4W, N.M.P.M., Rio Arriba County, New Mexico, in the Basin Dakota, Wildhorse Gallup and Blanco Mesaverde.

The purpose of this letter is to notify you of such action, as our records indicate that you are the owner and operator of acreage which adjoins the area in which the downhole commingling is requested. If you have no objections to the proposed commingling order, we would appreciate your signing the attached copy of this letter and returning it to this office.

Your prompt attention to this matter would be appreciated.

Yours truly,

P. M. Pippin  
Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_





**Union Texas Petroleum**

February 9, 1987

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Columbus Energy Corporation  
P. O. Box 2038  
Farmington, New Mexico 87499

Gentlemen:

Union Texas Petroleum Corporation is in the process of applying for a downhole commingling order for their Jicarilla H #12M well located 1695' FSL, 990' FEL, Section 17, T26N-R4W, N.M.P.M., Rio Arriba County, New Mexico, in the Basin Dakota, Wildhorse Gallup and Blanco Mesaverde.

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Yours truly,

P. M. Pippin  
Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_



**Union Texas Petroleum**

February 9, 1987

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Meridian Oil, Inc.  
3535 East 30th Street  
P. O. Box 4289  
Farmington, New Mexico 87499

Gentlemen:

Union Texas Petroleum Corporation is in the process of applying for a downhole commingling order for their Jicarilla H #12M well located 1695' FSL, 990' FEL, Section 17, T26N-R4W, N.M.P.M., Rio Arriba County, New Mexico, in the Basin Dakota, Wildhorse Gallup and Blanco Mesaverde.

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Your prompt attention to this matter would be appreciated.

Yours truly,

P. M. Pippin  
Production Engineer

PMP:lmg

The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_



**Union Texas Petroleum**

February 9, 1987

375 U.S. Highway 64  
Farmington, New Mexico 87401  
Telephone (505) 325-3587

Southern Union Exploration Company  
P. O. Box 2179  
Farmington, New Mexico 87499

Gentlemen:

Union Texas Petroleum Corporation is in the process of applying for a downhole commingling order for their Jicarilla H #12M well located 1695' FSL, 990' FEL, Section 17, T26N-R4W, N.M.P.M., Rio Arriba County, New Mexico, in the Basin Dakota, Wildhorse Gallup and Blanco Mesaverde.

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Production Engineer

PMP:lmg

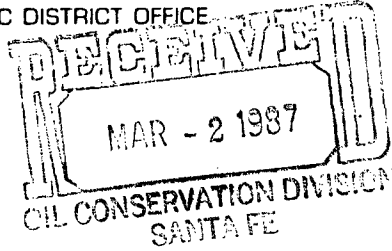
The above downhole commingling request  
is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE



1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-6178

OIL CONSERVATION DIVISION  
BOX 2088  
SANTA FE, NEW MEXICO 87501

DATE 2-23-87

RE: Proposed MC \_\_\_\_\_  
Proposed DHC X \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 2/11/87  
for the U.S.P. Jimilla #12M I-17-26N-4W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

Frank D. Dy