Midland Division
Exploration and Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX79705-4500 9 02
(915)-686-5400

January 20, 1993

State of New Mexico Energy & Minerals Department Oil Conservation Division P.O. Box 2088 Santa Fe, NM 87504-2088

Gentlemen:

Application to Downhole Commingle the

Dakota and Mesaverde Gas Producing zones
in State Com AG #29E, 1500' FNL & 1565' FWL,

Sec. 36, T-29N, R-10W, San Juan County, New Mexico

It is proposed to downhole commingle the Dakota and Mesaverde Gas zones in this well to return it to economic operation and to maximize the efficient and effective recovery of Gas at this location.

After failing a packer leakage test in November, 1991, this dual completion was shut-in. Economic evaluation of the continued operation of this well as a dual completion has shown that it can only be economically returned to production if it can be downhole commingled and operated as a single completion.

The Dakota and Mesaverde producing rates had declined to marginal levels of 22 MCFGPD and 58 MCFGPD respectively prior to shut-in. Elimination of excess operational equipment and operating expense associated with dual operation would contribute to the maximization of the producing lives and recoveries from each pool. Downhole commingling would permit the elimination of one tubing string, one separator and one tank now required for the operation of this dual completion and would eliminate maintenance costs with maintaining isolation of the two completions.

The following attachments are submitted in support of this application:

- 1. EXHIBIT A is a plat (a) showing Dakota wells in the area, (b) identifying the subject well, and (c) outlining the Dakota proration unit.
- 2. EXHIBIT B is a plat (a) showing Mesaverde wells in the area, (b) identifying the subject well, and (c) outlining the Mesaverde proration unit.
- 3. EXHIBIT C is the most recently filed GOR test (C-116) and documents the producing rates for each completion prior to being shut-in in November of 1991.
- 4. EXHIBITS D and E are current decline curves for Dakota and Mesaverde production.

- 5. EXHIBIT F is a plot of shut-in tubing pressures for both zones. The last recorded surface pressures can be converted to estimated bottom hole pressures of 706 psia for the Dakota and 569 psia for the Mesaverde.
- 6. WI, RI, AND ORRI ownerships are identical for both formations.
- 7. EXHIBITS G & H are respectively Dakota and Mesaverde gas analyses. BTU values are very similar for both and since sales are based on a \$/BTU rate, revenue for the combined gas stream will be the same as for the separated sales streams of the dual completion. Therefore, there would be no revenue or royalty loss due to commingling.
- 8. Allocation percentages based on the last reported C-116 tests are suggested as follows:

<u>Oil Gas Water</u>

Basin Dakota 50% 33% 0%

Blanco Mesaverde 50% 67% 100%

9. Additional interest owners in both completions of this well are: Amoco Production Company, Meredian, and Southland Royalty. Copies of this application were sent by certified mail to each and EXHIBIT I includes copies of each certified mail receipt to them.

Very truly yours,

Jerry W. Hoover

Senior Conservation Coordinator

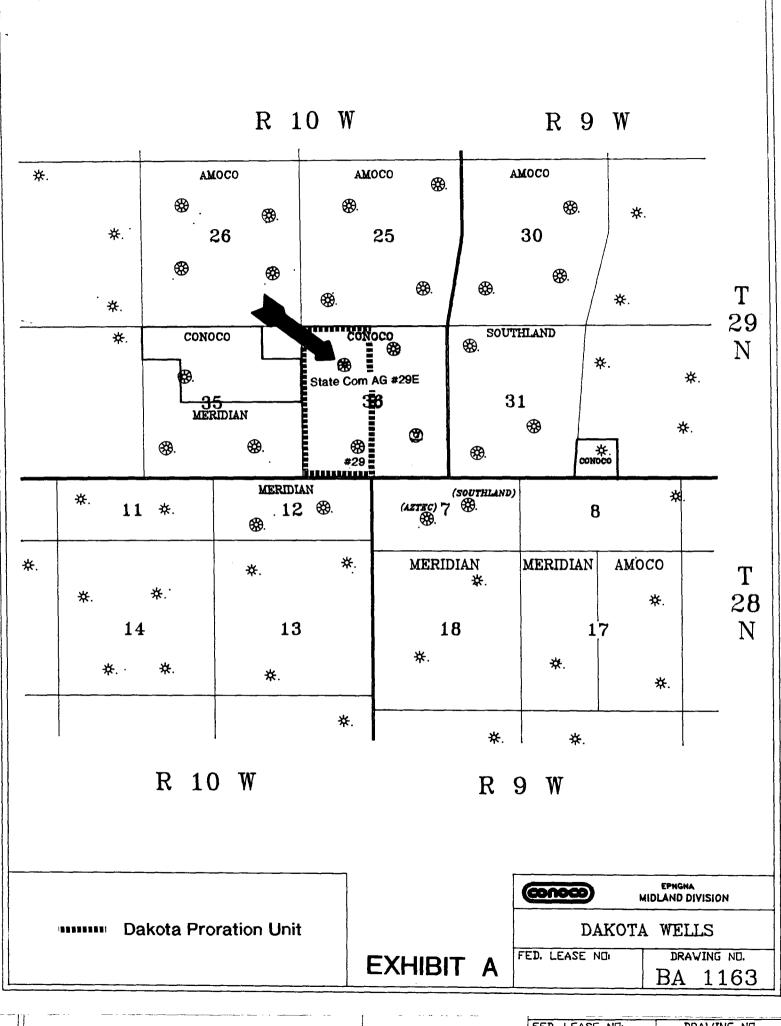
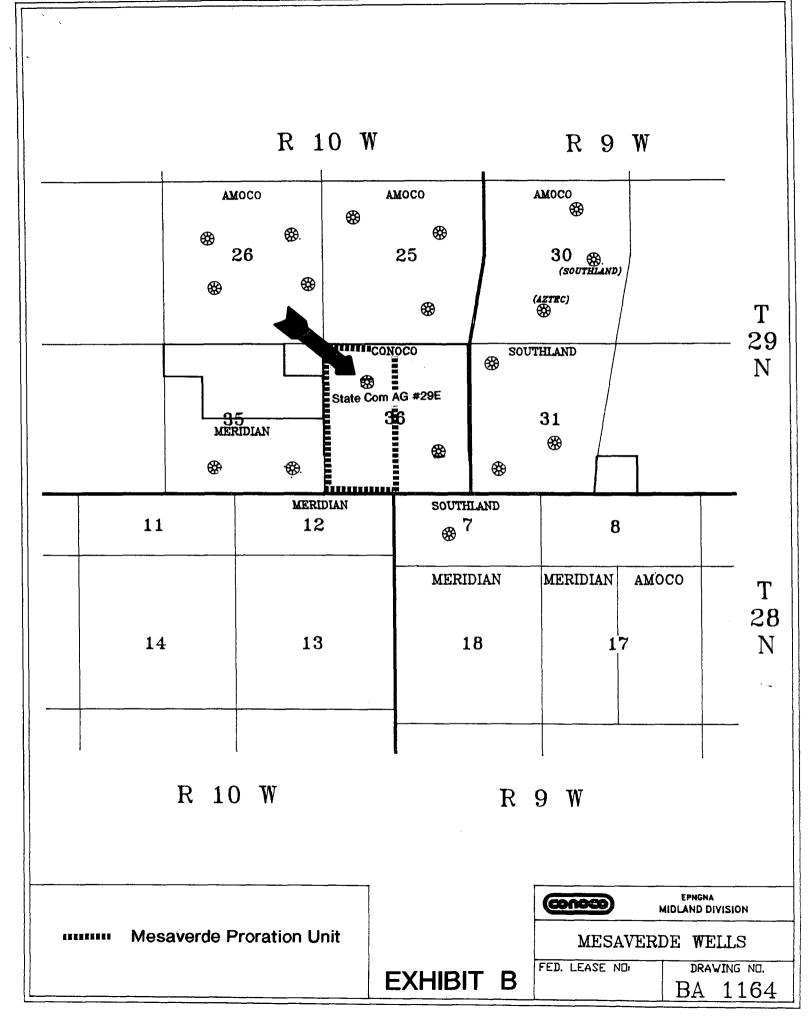


EXHIBIT B FED. LEASE NO. BA 1164



**Revised 1/1/89** 

Form C-116

State of New Mexico Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION** 

Santa Fe, New Mexico 87504-2088 P.O. Box 2088

000 Rio Brazos Rd., Aztec, NM 87410

P.O. Drawer DD, Artesia, NM 88210

DISTRICT II

DISTRICT III

P.O. Box 1980, Hobbs, NM 88240

DISTRICT

Submit 2 copies to Appropriate District Office.

## GAS - OIL RATIO TEST

	County	San Juan	on Special	OD. DURING TEST	WATER GRAV. OIL GAS HAND BBLS. OIL BBLS. M.C.F. CU,FT/BBL.	1 58 58,000	1 22 22,000			
		Basin Dakota	Completion	$\vdash$	HOUPS I	54	24			
			Scheduled X	DAILY		195	434	Shared with State Com AG #29		
3			Schedul	1	PRESS.	<b>!</b>				
AAU AA		de	ہ ح۔	CHOKE		1	}			
		Blanco Mesaverde	TYPE OF TEST - (X)	SU	FATS	ĒΉ	[IT4			
TOTAL OFFICE PROPERTY	Pool			PATEOF	TEST	10-1-91	10-1-91			
5	_		79705		Œ	29N 10W	29N 10W			
			百	M	1	29N	29N			
				Midland, TX 7	Midland,	LOCATION	ø	36	36	
,							n	ĒΉ	Ĺτι	
			100W	WELL	ð.	29E	29E			
			Suite	Suite						
	Operator	Conoco Inc.	Address #10 Desta Drive, Suite 100W		LEASE NAME	State Com AG (Mesaverde)	State Com AG (Dakota)			

### Instructions:

which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in order that well can be assigned increased allowables when authorized by the Division.

I hereby certify that the above information is true and

complete to the best of my knowledge and belief.

Sr. Conservation

Coordinator

Jerry W. Hoover Printed name and title

Signature

1/19/93 Date

Telephone No.

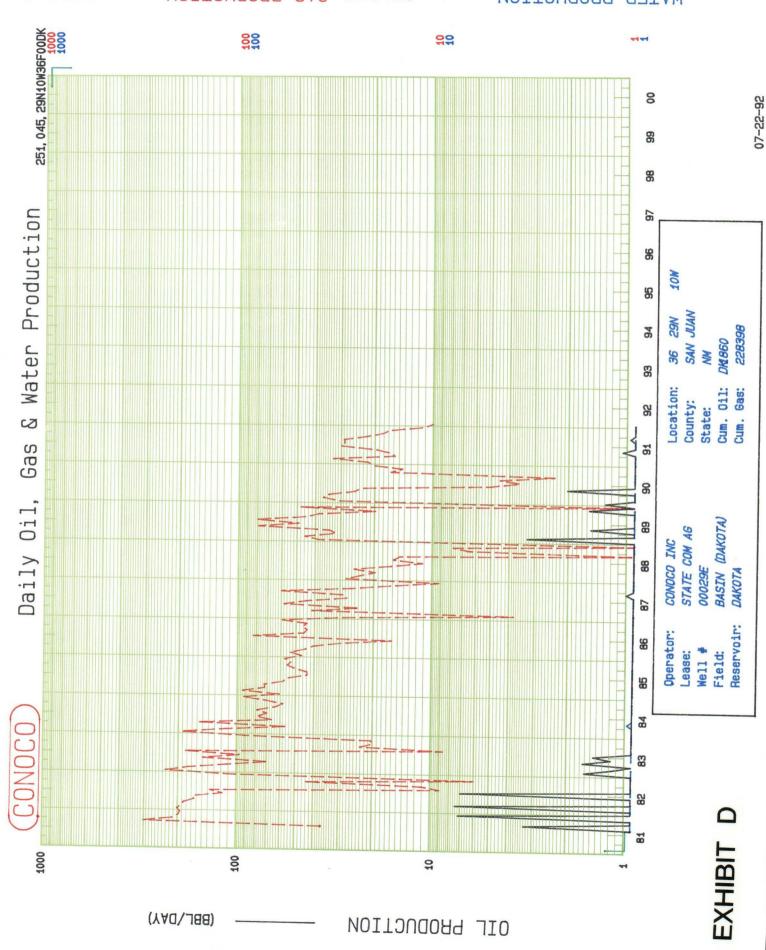
(915) 686-6548

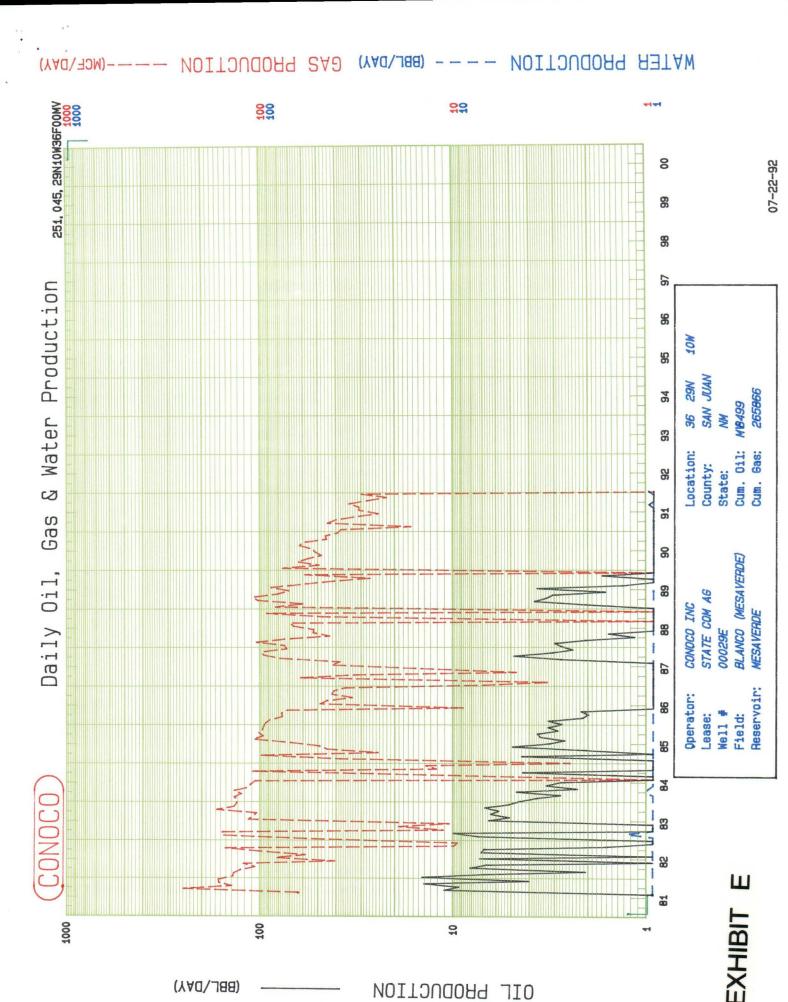
Gas volumes must be reported in MCP measured at a pressure base of 15.025 psia and a temperature of 60° P. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

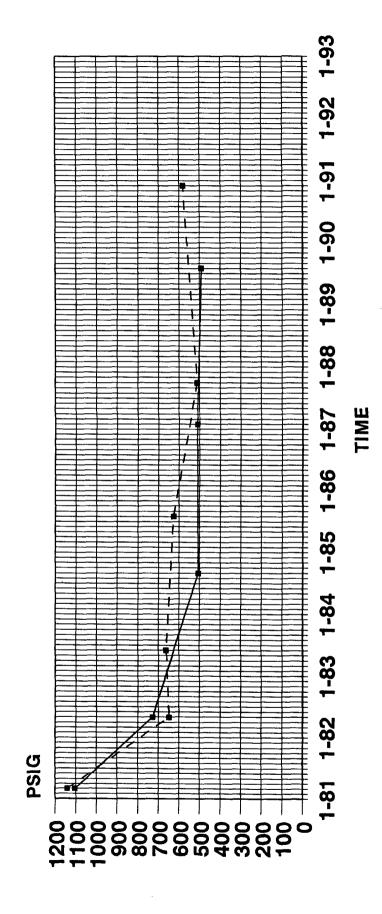
(See Rule 301, Rule 1116 & appropriate pool rules.)

## EXHIBIT C





# SAN JUAN OPERATIONAL UNIT STATE COM AG #29E SHUT-IN TUBING PRESSURE



→ MESAVERDE → DAKOTA

WELL DELIVERABILITY TEST REPORT (FORM C-122A)
WELL COMPLETED FEBRUARY 14, 1981

### EXHIBIT F



1115 FARMINGTON AVE. - FARMINGTON, NM 87401

(505) 325-6622

ANALYSIS NO. CON10037

### WELL/LEASE INFORMATION

COMPANY: CONOCO, INC.

WELL NAME: STATE COM AF 28

LINE PRESSURE:

LOCATION:

SAMPLE TEMP.:

LEASE:

WELL FLOWING: YES

FORMATION: Dakota

DATE SAMPLED: 11/91

METER NO .:

SAMPLED BY: CONOCO

REMARKS:

### ANALYSIS

COMPONENT	MOLE %	GPM	*B.T.U.	*SP. GR.
NITROGEN	0.833	0.0000	0.00	0.0081
C02	1.578	0.0000	0.00	0.0240
METHANE	81.052	0.0000	820.49	0.4489
ETHANE	9.315	2.5417	165.22	0.0967
PROPANE	3.450	0.9700	87.02	0.0525
I-BUTANE	0.691	0.2304	22.51	0.0139
N-BUTANE	1.105	<b>0.355</b> 3	36.12	0.0222
I-PENTANE	0.638	0.2381	25.58	0.0159
N-PENTANE	0.570	0.2107	22.91	0.0142
HEXANE	0.768	0.3418	39.50	0.0247
TOTAL	100.000	4.8880	1219.35	0.7211

### \* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

COMPRESSIBILITY FACTOR (1/Z)

REAL SPECIFIC GRAVITY

BTU/CU.FT. (DRY) CORRECTED FOR (1/Z) 1248.2 BTU/CU.FT. (WET) CORRECTED FOR (1/Z) 1226.5

ANALYSIS RUN AT 15.025 PSIA & 60 DEGREES F

CYLINDER PRESSURE: 117 PSIG

DATE RUN: 11/26/91

1.0036

0.7233

ANALYSIS RUN BY: CHELLE DURBIN

### EXHIBIT G

08-11-87

EL PASO NATURAL GAS COMPANY MEASUREMENT DEPARTMENT POST OFFICE BOX 1492 EL PASO, TEXAS 79978

MAILEE 04515 CHROMATOGRAPHIC GAS ANALYSIS REPORT

MESA OPERATING LTD PARTNERSHIP P. O. BOX 2009 AMARILLO, TX 79189

### Mesaverde Formation

ANAL DATE	00-00-00	METER STATION NAME STATE COMPARC#28ECM	ivá.	METER STA 93761 OPER 6014
TYPE CODE	SAMPLE DATE	EFF. DATE USE MOS	H2S GRAIN	S LOCATION
00 ***	07-31-87	08-01-87 06	0	4 F 13
		NORMAL MOL%	GPM	
C02		. 62	. 000	
H2S		. 00	. 000	
N2		. 43	. 000	
METHANE		75.40	. 000	
ETHANE		12.94	3.461	
PROPANE		6.77	1.866	
ISO-BUTANE		1.06	. 347	
NORM-BUTANE	:	1.62	. 511	·
ISO-PENTANE	:	. 49	.179	
NORM-PENTAN	(E	. 38	.138	
HEXANE PLUS	•	. 29	.126	
		100.00	6.628	
SPECIF	FIC GRAVITY		.756	5
	RE HEATING VAL F 014.73 PSIA	UE , 60 DEGREES,DRY)	1300	3
RATIO	OF SPECIFIC H	EATS	1.27	2
NO TES	ST SECURED FOR	H2S CONTENT		
### TYPE CO	DDE EXPLANATIO	N: SINGLE METER ANALYSIS	DATE REGULATORY MARKETING WF	-4-87

### P 451 210 209

### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL (See Reverse)

234-555	Sent to Amoco Production Co.				
1989-2	Street and No. Box 800				
U.S.G.P.O. 1989-234-555	P.O. State and ZIP Code Denver, CO 80201				
ે U.S	Postage	S			
	Certifie <b>ATS</b> e				
	Special Delivery Fee				
	Restricted Delivery Fee				
	Return Receipt showing to whom and Date Delivered				
<sup>5</sup> Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery				
June,	TOTAL Postage and Fees	S			
3800	Postmark or Date				
-orm	1/20/93				
PSF					

### P 451 210 211

### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

	(See Heverse)					
U.S.G.P.O. 1989-234-555	Sent to Meredian					
1989	P. O. Box 4289					
3.G.P.O	Familington, NM 87499					
Ü.S	Postage	S				
	Certified Fee XX					
	Special Delivery Fee					
	Restricted Delivery Fee					
	Return Receipt showing to whom and Date Delivered					
PS Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery					
Jen	TOTAL Postage and Fees	S				
800	Postmark or Date					
Ë	1/20/93					
For						
δ						

### P 451 210 210

### RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED NOT FOR INTERNATIONAL MAIL

(See Reverse)

	(See neverse)					
234-556	Sent to SouthLand Royalty  c/o Meredian					
1989-	Street and NoO. Box 4289					
. U.S.G.P.O. 1989-234-555	P.O. State and ZIP Code Farmington, NM	87499				
÷ U.S	Postage	S				
	Certified Fee					
	Special Delivery Fee					
	Restricted Delivery Fee					
10	Return Receipt showing to whom and Date Delivered					
PS Form 3800, June 1985	Return Receipt showing to whom, Date, and Address of Delivery					
Jun.	TOTAL Postage and Fees	S				
3800	Postmark or Date					
e e	1/20/93					
PS F						