STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

April 6, 1984

Administrative Order No. DHC-457

Amoco Production Company
Petroleum Center Building
501 Airport Drive
Farmington, NM 87401

Attention: S. D. Blossom

Re: Jicarilla Contract 155, Well No. 22, Unit I, Sec. 31, T-26N, R-5W, Basin Dakota and Blanco Mesaverde Pools, Rio Arriba County, NM

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any administrative Division Order which may have authorized the dual completion and required separation of the two zones, is hereby placed in abeyance.

In accordance with the provisions of Rule 303.C.4., total commingled condensate production from the subject well shall not exceed 30 barrels per day, and total water production from the well shall not exceed 60 barrels per day. The maximum amount of gas which may be produced daily from the well shall

be determined by multiplying current combined gas production by 125%.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Basin Dakota Pool: Condensate 76 %, Gas 82 %
Blanco Mesaverde Pool: Condensate 24 %, Gas 18 %

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,

JOE D. RAMEY,
Division Director

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 1-26-84

RE: Proposed MC _____
Proposed DHC ✓
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated Jan. 25, 1984

for the Amoco Jic Cont 155 #22 I-31-26N-5W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

Frank T. Chavez

Amoco Production Company

Petroleum Center Building
501 Airport Drive
Farmington, New Mexico 87401
505-325-8841

S. D. Blossom
District Superintendent

January 10, 1984

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

File: DHS-10-986.510.1

Commingling Application for the Jicarilla Contract 155 No. 22, Unit I, Section 31, T26N, R5W, Rio Arriba County, New Mexico

Amoco Production Company requests approval to downhole commingle production from the Basin Dakota and the Blanco Mesaverde pools in the subject well. The commingling will utilize a production packer set between the two zones at 7040' and a sliding sleeve set at 7030' to produce up 2-3/8" tubing landed at 7286'.

The commingling of Dakota and Mesaverde pools is necessary to more efficiently produce the Mesaverde. The gas production of the Mesaverde is not sufficient to lift Mesaverde liquids up the tubing-casing annulus. By producing the Mesaverde up the tubing, the liquids from the Mesaverde will be efficiently produced. The proposed commingling will not adversely affect either zone for the following reasons:

1. Neither zone will be damaged by the small amount of formation water which is produced. The Dakota formation has averaged 0 BWPM during 1983. The Mesaverde has averaged 0 BWPM during 1983.

2. Neither zone has a history of sensitivity to liquid hydrocarbons and should not be damaged by condensate production.

3. Both zones have common ownership, so the allocation of royalty or working interest payments will not be a problem.

4. The bottom hole pressure of the Basin Dakota is 97 percent of the Mesaverde.

In compliance with NMOCD Rule 303C, please find two copies of each of the following:

1. "Well Location and Dedication Plat" (NMOCD Form C-102).

2. Well location map showing location of all outside operated wells.

3. List of names and addresses of operators for all outside operated wells.

4. A complete well completion history (USGS Form 9-331, "Sundry Notices and Reports on Wells).

5. A complete engineering completion summary on both zones.

6. Production decline curve for the Basin Dakota.

7. Production decline curve for the Blanco Mesaverde.

8. NMOCD Form C-116 showing latest Dakota production.

9. NMOCD Form C-116 showing latest Mesaverde production.

10. Seven-day bottom hole pressure on the Dakota.

11. Calculated bottom hole pressure on the Mesaverde.

12. Gas analysis from the Dakota.

13. Gas analysis from the Mesaverde.

14. Water analysis from the Dakota.

15. Formula for the allocation of production for each commingled zone.

16. A copy of the letter sent to all offset operators and the Bureau of Land Management notifying them of our intent to commingle.

To allocate production to the individual Mesaverde and Dakota horizons we recommend the following:

1. Allocate 18 percent of the gas production to the Mesaverde horizon.

2. Allocate 82 percent of the gas production to the Dakota horizon.

3. Allocate 24 percent of the condensate production to the Mesaverde horizon.

4. Allocate 76 percent of the condensate production to the Dakota horizon.

Please approve this commingling application as soon as possible so we can produce the Mesaverde up the tubing.

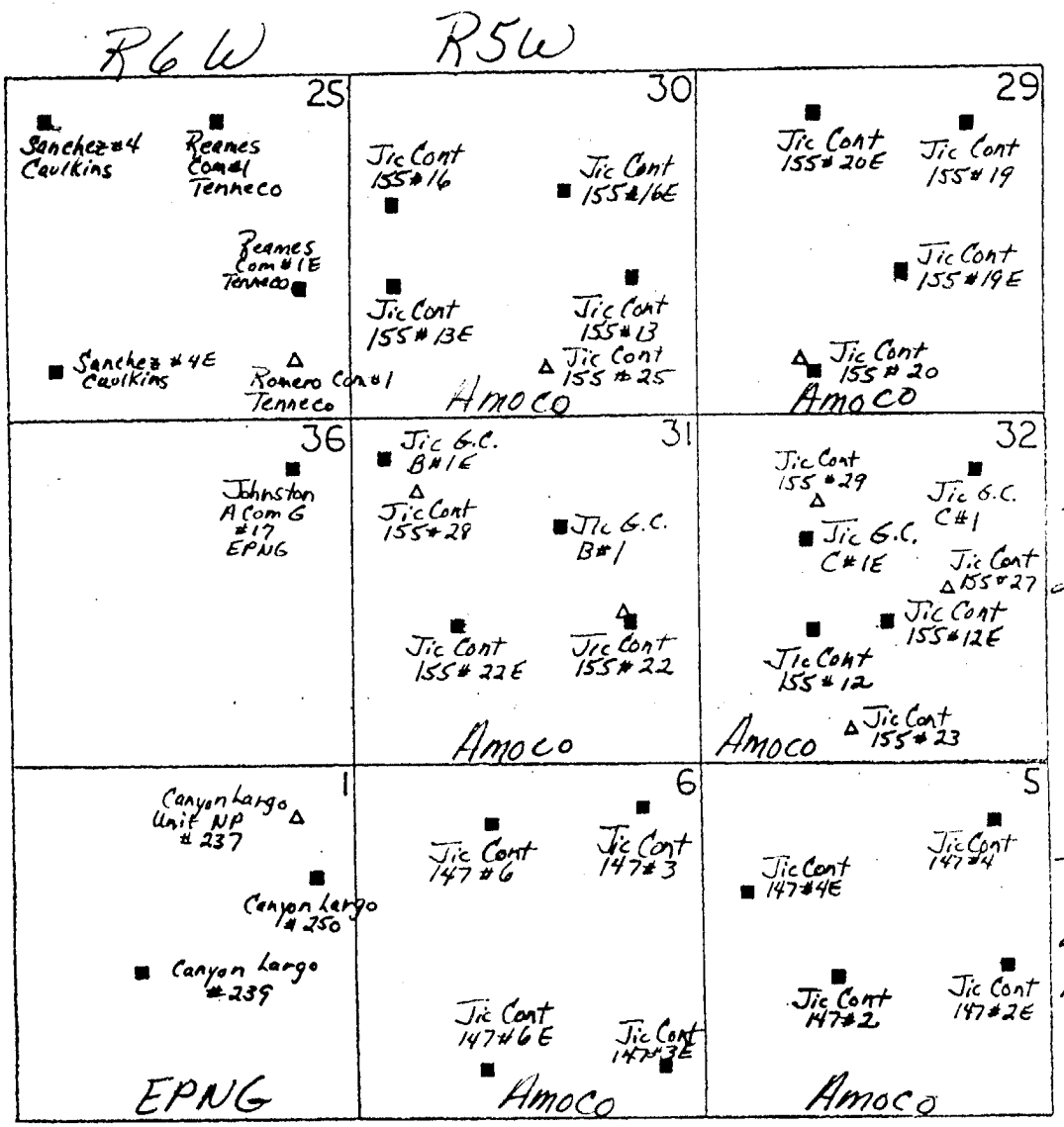
Yours very truly,

S. D. Blossom

MJB/lf/tk
Attachments

AM9

JICARILLA CONTRACT 155 #22



■ BASIN DAKOTA WELLS

△ GONZALES MESAVERDE WELLS

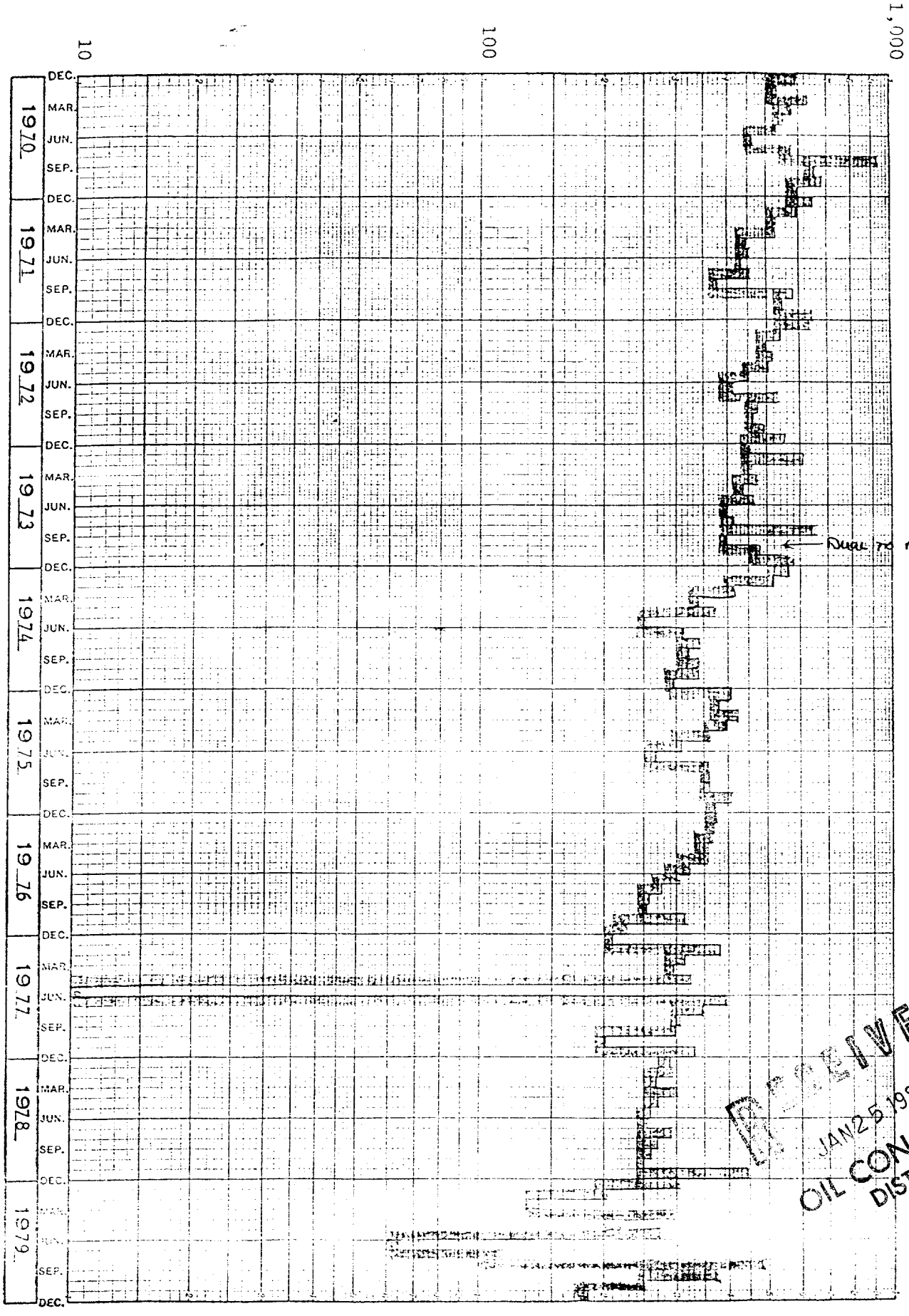
Attachment 2

Attachment 3

Tenneco Oil Company
P.O. Box 3249
Englewood, Colorado 80155

El Paso Natural Gas Company
P.O. Box 990
Farmington, New Mexico 87499

Attachment 6



RECEIVED
JAN 25 1984
OIL CON. DIV.
DIST. 3

JICARILLA CONTRACT 155 #22
I 31 26N 5W
BASIN DAKOTA

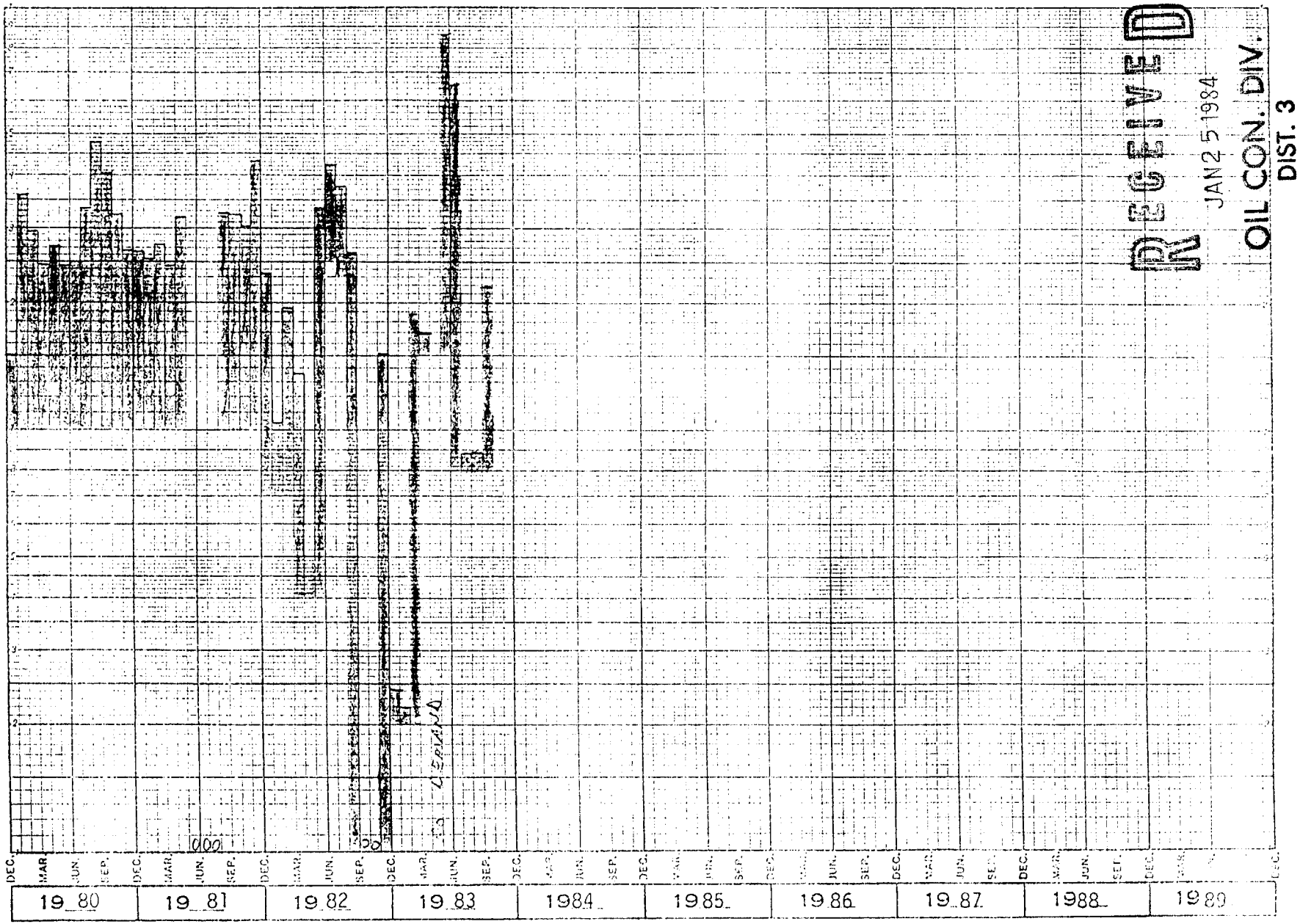
000

CFD

Attachment 6 con't

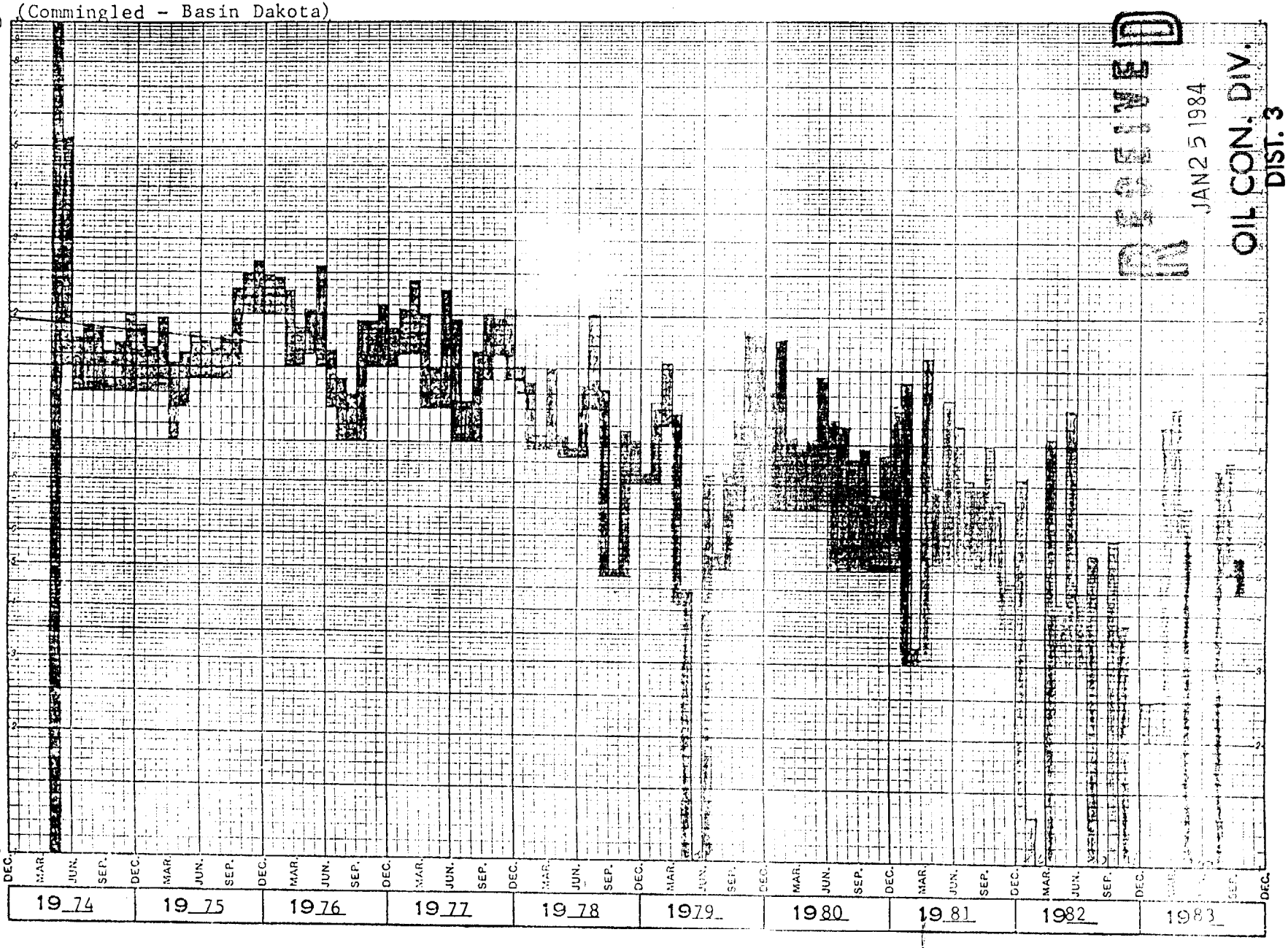
00

0



ATTACHMENT NO. 11L

Jicarilla Contract 155 No. 22
Gonzales Mesaverde
(Commingled - Basin Dakota)



Attachment 7

RECEIVED
JAN 25 1984
OIL CON. DIV.
DIST. 3

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-116
Revised 10-1-78

GAS – OIL RATIO TESTS

Operator: Amoco Production Company | Pool: Basin Dakota | County: Rio Arriba

Address: 501 Airport Drive, Farmington, New Mexico 87401 | TYPE OF TEST – (X) Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS – OIL RATIO CU.FT/BB
Jicarilla Contract 155 (DAK)	22	I	31	26N	5W	October Production	F				744	0		54	6752	125037

Attachment 6

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

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

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

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

Dale H. Spencer (Signature)
District Engineer (Title)
1/23/84

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Revised 10-1-78

GAS - OIL RATIO TEST

Operator: Amoco Production Company

Pool: Blanco Mesaverde

County: Rio Arriba

Address: 501 Airport Drive, Farmington, New Mexico 87401

TYPE OF TEST - (X) Scheduled [X] Completion [ ] Special [ ]

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS MCF.	GAS - OIL RATIO CU.FT./BBL.
Jicarilla Contract 155 (MV)	22	I	31	26N	5W	October Production	F				360	0		17	820	48235

RECEIVED
JAN 25 1984
OIL CON. DIV.
DIST. 3

Attachment 2

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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

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

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

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

Dale H. Stutzenberger
District Engineer
1/23/84

BOTTOM HOLE PRESSURE DATA

WELL NAME & NO. JIC 155 22
FIELD DAK

Date of Test 6-6-83

Well Completion Data

Total Depth _____
Plugged Back Depth _____
Production Casing _____ " CSA _____ Ft.
Tubing _____ " Landed At _____ Ft.
Seating Nipple Depth _____
Perforations _____

Mid-Point Perforations _____
Elevation _____ GL; _____ DF; _____ RDB
Datum (Sub-Sea) _____

Pressure Data

Shut-in Tubing Pressure _____ PSIG
Shut-in Casing Pressure _____ PSIG

Bottom Hole Pressure Data

Type Instrument Used _____
Pressure Range of Element _____
Date Element Calibrated _____

Time	Depth Stopped	Extension	Pressure	Gradient	Temperature
	Surface	.698	1661		
	BHP	.840	1772		

BHP / Datum

Remarks

Attachment 11

Bottom Hole Pressure

Jicarilla Contract 155 No. 22 (MV)

The Mesaverde side of the Jicarilla Contract 155 No. 20 was shut-in for seven days. Well head pressure was 1120 psi. Using the Redlick-Kwong method a bottom hole pressure of 1322 psi at 5200 feet was obtained. The Dakota bottom hole pressure is 97 percent of the Mesaverde bottom hole pressure.

Samples 5-15-01

RECEIVED

MAY 27 [illegible]

MEASUREMENT

12:05:45 05/21/81

12 METER CODE 8663101-6-0200-05181-JIC. CONT 155 # 22 B-0000

COMPONENT	MOL%	GPM	SP GR	BTU	UNOL%	SP HEAT
H2S	0.00	0.000	0.0000	0.	0.00	0.000
N2	0.46	0.000	0.0044	0.	0.47	0.006
C1	77.16	0.000	0.4275	781.	77.85	1.010
C2	12.19	0.000	0.1266	216.	12.30	0.145
CO2	0.84	0.000	0.0128	0.	0.85	0.011
C3	5.47	1.505	0.0833	138.	5.52	0.062
IC4	0.81	0.265	0.0163	26.	0.82	0.009
NC4	1.42	0.447	0.0285	46.	1.44	0.016
IC5	0.44	0.161	0.0110	18.	0.44	0.005
NC5	0.34	0.123	0.0085	14.	0.35	0.004
C6+	0.85	0.371	0.0273	44.	0.86	0.009
	100.00	2.872	0.749	1288.	1266.	1.277

BASE MOL [illegible]

Attachment 12

RECEIVED
BLM
JAN 25 1984
OIL CON. DIV.
DIST. 3

Attachment 13

06/11/82

EL PASO NATURAL GAS COMPANY
MEASUREMENT DEPARTMENT
POST OFFICE BOX 1492
EL PASO, TEXAS 79999

CHROMATOGRAPHIC GAS ANALYSIS REPORTS

AMOCO PRODUCTION CO.
ATTN: R. A. CONNER
501 AIRPORT DRIVE
FARMINGTON, N. M. 87401

ANAL DATE 06 08 82 | METER STATION NAME JICARILLA CONT 155 #22 MV | METER STA 86694 OPER 0203

TYPE CODE	SAMPLE DATE	EFF. DATE	USE MOS.	SCALE	H2S GRAINS	LOCATIO
00	06 08 82	06 08 82	06			5 N 0

	NORMAL MOL%	GPM
C O 2	.54	.000
H 2 S	.00	.000
N2	.43	.000
METHANE	79.40	.000
ETHANE	10.89	2.911
PROPANE	5.55	1.527
ISO-BUTANE	.89	.291
NORM-BUTANE	1.32	.416
ISO-PENTANE	.39	.143
NORM-PENTANE	.28	.101
HEXANE PLUS	.31	.135
TOTALS	100.00	5.524

SPECIFIC GRAVITY .723

MIXTURE HEATING VALUE
(BTU/CF AT 14.73 PSIA,60 DEGREES,DRY) 1,256

RATIO OF SPECIFIC HEATS 1.279

NO TEST REQUIRED FOR H2S CONTENT

RECEIVED
JAN 25 1984
OIL CON. DIV.
DIST. 3

Attachment 14

TEEI, Inc
333 East Main
Farmington
New Mexico
87401
505/327-3311

TEEI

DHC

OIL-FIELD WATER ANALYSIS REPORT

DEC 1983
AMOCO PRODUCTION
FARMINGTON

DATE: December 7, 1983

FURNISHED BY: Morris Bell

COPIES TO:

REPORTED TO: Amoco Production Co.
501 Airport Drive
Farmington, NM 87401
Attn: Morris Bell

PAGE: 1/1

LABORATORY No. 4-229

Company	Sample No.	Date Sampled
Amoco Production Company		11-17-83

Field	Legal Description	County or Parish	State
Basin Dakota	Unit I, Sec. 31, T26N RSW	Rio Arriba	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
Jicarilla Contract 155	22		Dakota	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
Produced	Production Unit	Jerry Muniz

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	25	1.1
Calcium, Ca	4	0.2
Magnesium, Mg	0.2	–
Barium, Ba		
Potassium	0.8	–

ANIONS		
Chloride, Cl	28	0.7
Sulfate, SO_4	<5	–
Carbonate, CO_3	none	–
Bicarbonate, HCO_3	13.7	0.2

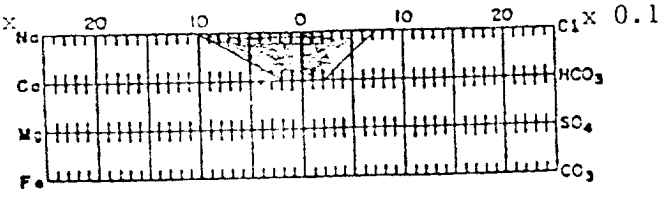
Total Dissolved Solids	376
Iron, Fe (total)	
Sulfide, as H_2S	

OTHER PROPERTIES

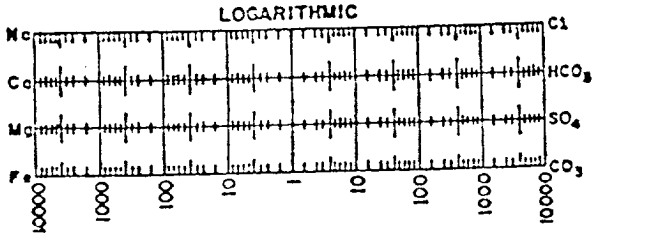
pH	7.19
Specific Gravity, 60/60 F.	1.001
Resistivity (ohm-meters) 65° F.	65
	5

WATER PATTERNS — me/l

STANDARD



LOGARITHMIC



Date Received *	Preserved	Date Analyzed	Analyzed By
		12/5/83-12/6/83	Stan Lueck

REMARKS & RECOMMENDATIONS:

*Reanalysis of sample 4-216 (2) received on 11/18/83.

RECEIVED
JAN 25 1984
OIL CON. DIV.
DIST. 3

TEEI, Inc.

By Stan Lueck

Attachment 15

Allocation of Production

	Average Gas Production	Average Condensate Production
Dakota	202 MCFD	1.9 BOPD
Mesaverde	45 MCFD	0.6 BOPD
Total	247 MCFD	2.5 BOPD

Allocate 82% gas production and 76% condensate production to the Basin Dakota horizon.

Allocate 18% gas production and 24% condensate production to the Blanco Mesaverde horizon.

Attachment 16

Amoco Production Company
Petroleum Center Building
501 Airport Drive
Farmington, New Mexico 87401
505-325-8841

S. D. Blossom
District Superintendent

January 12, 1984

Tenneco Oil Company
P.O. Box 3249
Englewood, CO 80155

Bureau of Land Management
Caller Service 4104
Farmington, NM 87499

El Paso Natural Gas Company
P. O. Box 990
Farmington, NM 87499

File: DHS-8-986.510.1

Proposed Downhole Commingling of Jicarilla Contract 155 No. 22,
Rio Arriba County, New Mexico

This is to advise you that the Farmington District Office of Amoco Production Company is requesting approval from the New Mexico Oil Conservation Division to downhole commingle production from the following well:

Jicarilla Contract 155 No. 22, Unit I, Section 31, T26N, R5W

This well has been completed in the Basin Dakota and Blanco Mesaverde pools.

Enclosed is a wellbore diagram and a map showing the location of offset wells.

If you, as an offset operator, have no objections to the commingling of production from the Basin Dakota and Blanco Mesaverde pools of the subject well, please sign the waiver below and send to:

New Mexico Oil Conservation Division
Box 2088
Sante Fe, NM 87501

We would appreciate your sending one executed copy to the undersigned.

Very truly yours,

S. D. Blossom

MJB/tk
Enclosures

Waiver

We hereby waive any objections to Amoco Production Company's application for commingling as set forth above.

_____
Company

_____
By Date

AM13