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-458

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

RECEIVED
APR 18 1984
OIL CON. DIV.
DIST. 3

Attention: S. D. Blossom

Re: Jicarilla Contract 55 Well No. 20, Unit N, Sec. 29, 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 64 %, Gas 86 %
Blanco Mesaverde Pool: Condensate 36 %, Gas 14 %

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.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 January 26, 1983

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

Gentlemen:

I have examined the application dated January 25, 1983

for the Amoco Jic Cont. 155 #20 N-29-26W-5W
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve

Yours truly,

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-2-986.510.1

Commingling Application for the Jicarilla Contract 155 No. 20, Unit N, Section 29, 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 6842' and a sliding sleeve set at 6832' to produce up 2-3/8" tubing landed at 6869'.

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 Mesaverde is 56 percent of the Basin Dakota.

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 14 percent of the gas production to the Mesaverde horizon.

2. Allocate 86 percent of the gas production to the Dakota horizon.

3. Allocate 36 percent of the condensate production to the Mesaverde horizon.

4. Allocate 64 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.

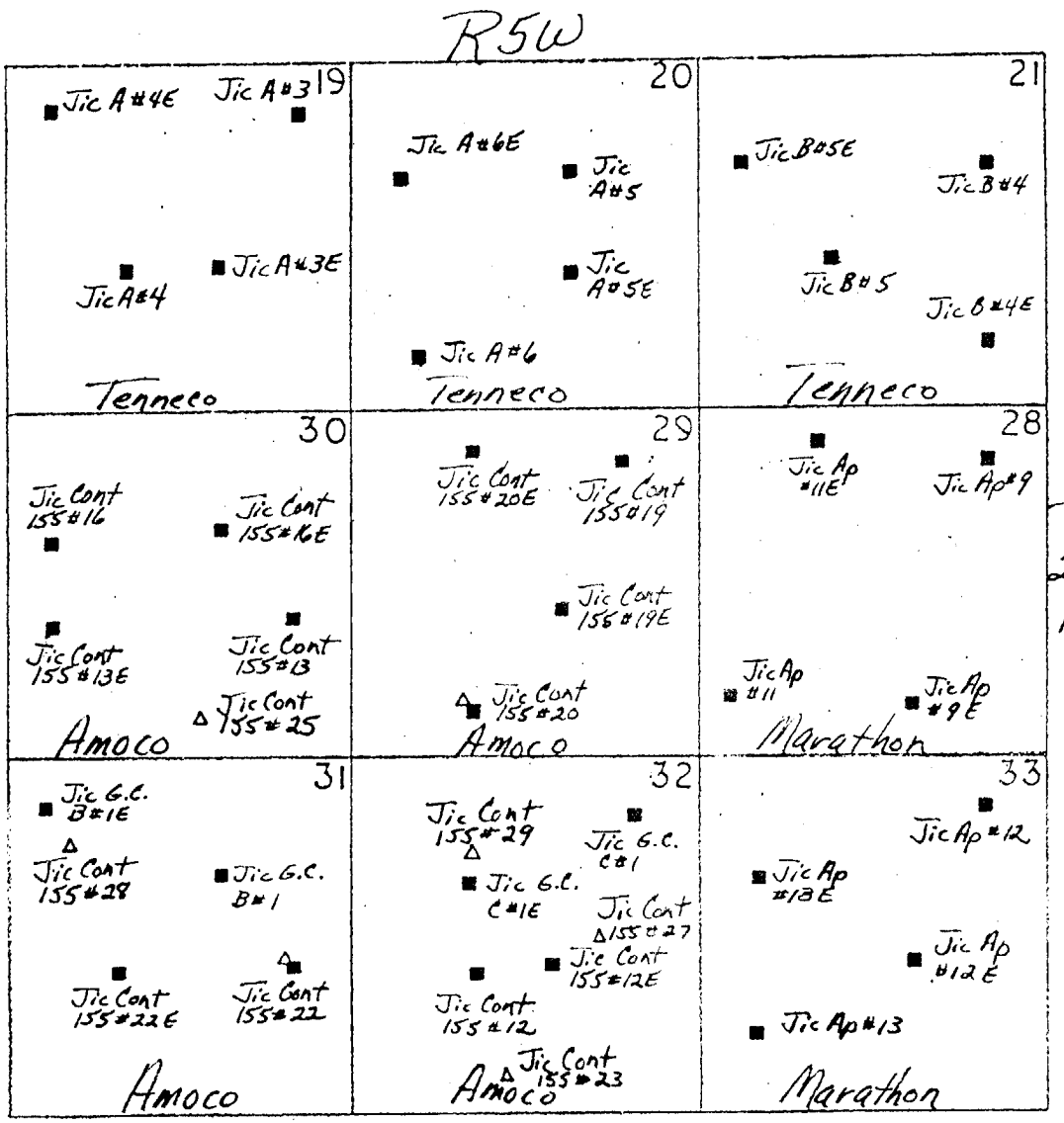
Yours very truly,

S. D. Blasson

MJB/lf/tk
Attachments

AM9

JICARILLA CONTRACT 155 #20



■ BASIN DAKOTA WELLS

△ GONZALES MESAVERDE WELLS

Attachment 2

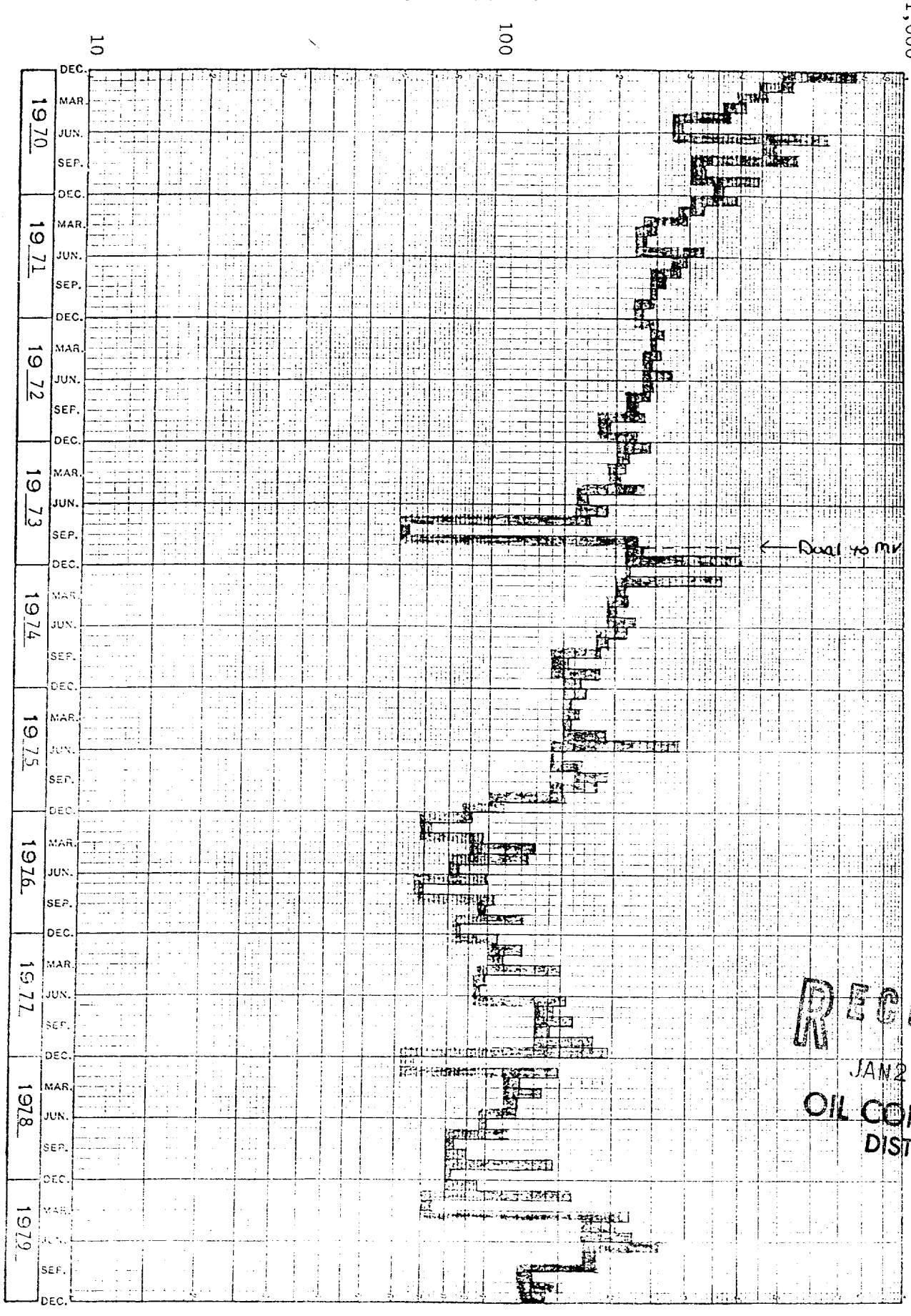
Attachment 3

Offset Operators Addresses

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

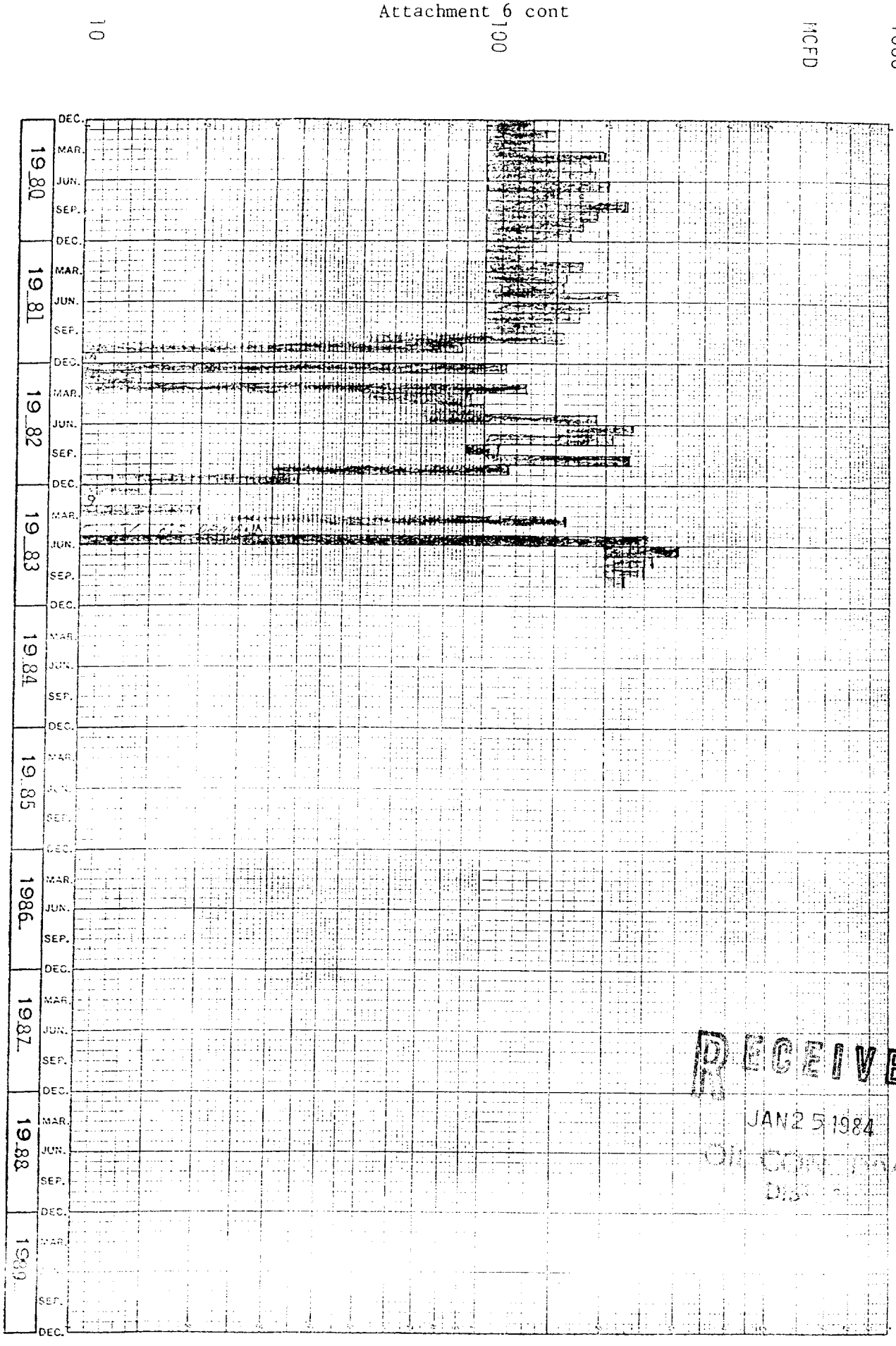
Marathon Oil Company
P.O. Box 120
Casper, Wyoming 82601

Attachment 6



Basin Dakota
Jicarilla Contract 155 No. 20
(Commingled, Gonzales MV) DUAL

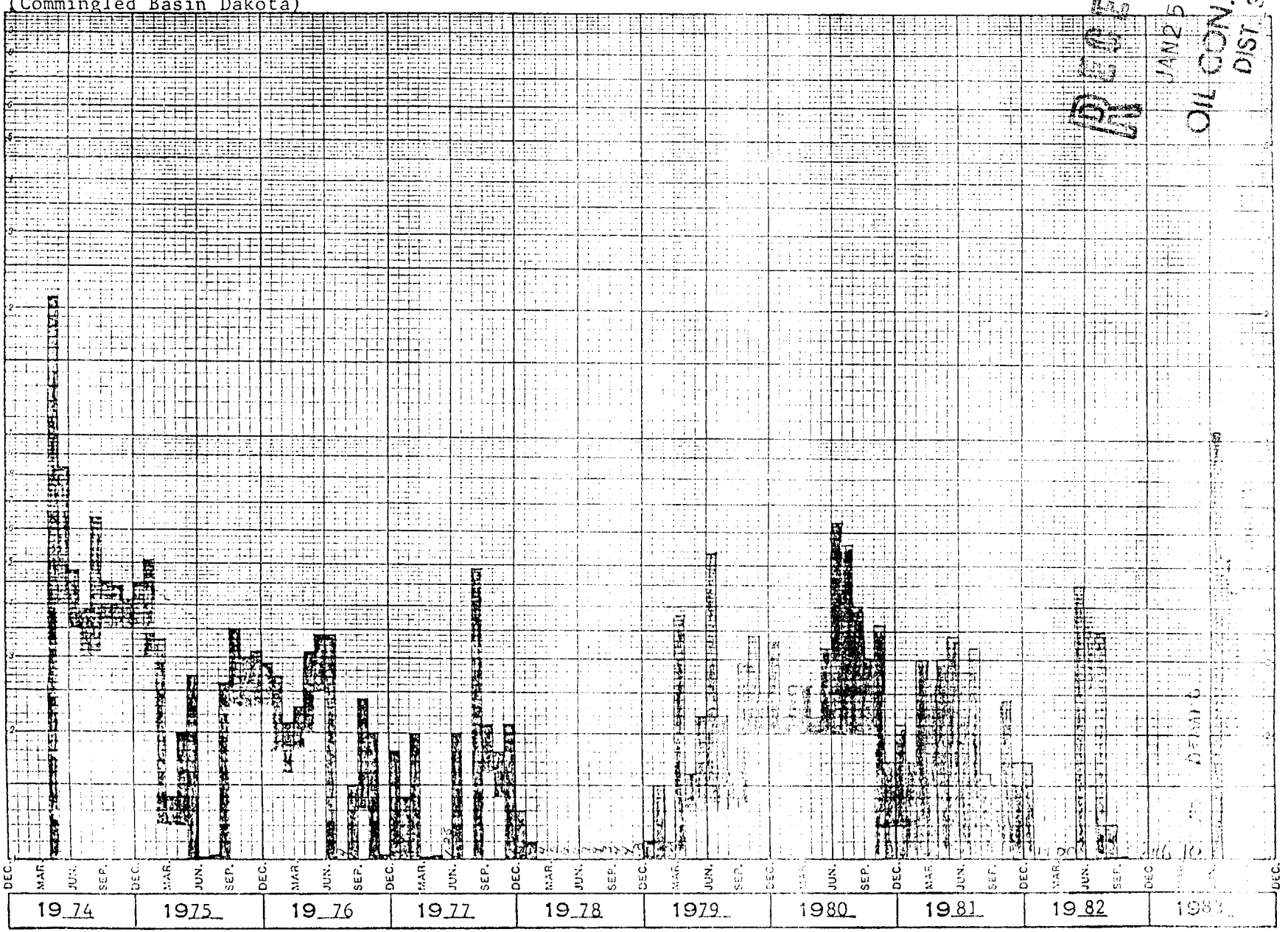
Attachment 6 cont



ATTACHMENT NO. 11K

Jicarilla Contract 155 No. 20
Gonzales Mesaverde
(Commingled Basin Dakota)

Attachment 7



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

Revised 10-1-78

GAS – OIL RATIO TESTS

Operator	Pool	County
Amoco Production Company	Basin Dakota	Rio Arriba

Address	TYPE OF TEST – (X)			
501 Airport Drive, Farmington, New Mexico 87401	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./BBL
Jicarilla Contract 155 (Dak)	20	N	29	26N	5W	October	F				192	0		2	1784	892000

Attachment 8

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OIL CON. DIV.
DIST. 3

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. Stranahan
(Signature)
District Engineer
(Title)
1/23/84

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: 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 M.C.F.	GAS – OIL RATIO CU.FT./BBL.
Jicarilla Contract 155 (MV)	20	N	29	26N	5W	October Production	F				72	0		7	230	32857

Attachment 9

RECEIVED
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OIL CON. DIV.
DIST. 3

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. Stolsenberg
(Signature)
District Engineer
(Title)
1/23/84
(Date)

Attachment 10

BOTTOM HOLE PRESSURE DATA

WELL NAME & NO. JIC 155-20

FIELD DAK

Date of Test 6-10-83

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	.765	1163		
	6500	961	1463		

BHP 1463 Datum _____

Remarks _____

Attachment 11

Bottom Hole Pressure

Jicarilla Contract 155 No. 20 (MV)

The Mesaverde side of the Jicarilla Contract 155 No. 20 was shut-in for seven days. Well head pressure was 700 psi. Using the Redlick-Kwong method a bottom hole pressure of 823 psi at 5100 feet was obtained. The Mesaverde bottom hole pressure is 56 percent of the Dakota bottom hole pressure.

Sampled 6-26-82

07/08/82

METER CODE 3662901-1-0200-08182-JIC CONT 155 #20 DK -0000

COMPONENT	MOL%	GPM	SP GR	BTU	UNOLX	SP HEAT
H2S	0.00	0.000	0.0000	0.	0.00	0.000
N2	0.36	0.000	0.0035	0.	0.36	0.005
C1	79.21	0.000	0.4387	802.	79.00	1.036
C2	11.27	0.000	0.1170	200.	11.24	0.134
C3	0.75	0.000	0.0114	0.	0.75	0.010
IC4	4.80	1.320	0.0731	121.	4.78	0.064
NC4	0.79	0.258	0.0159	26.	0.79	0.009
IC5	1.29	0.466	0.0259	42.	1.29	0.018
NC5	0.46	0.168	0.0115	18.	0.47	0.005
C6S	0.33	0.120	0.0082	13.	0.34	0.004
C6+	0.74	0.323	0.0238	38.	0.75	0.008
	100.00	2.595	0.731	1265.	1243.	1.339

C6+ MOL% 99.77

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DIST. 3

Attachment 12

86-693

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DEC 26 1980

MV

13:29:15 12/23/80

25 METER CODE 8669301-1-0200-01181-JIC. CONT 155 # 20 M-0000

COMPONENT	MOL%	GPM	SP GR	BTU	UNOL%	SP HEAT
H2S	0.00	0.000	0.0000	0.	0.00	0.000
N2	0.67	0.000	0.0065	0.	0.68	0.009
C1	78.25	0.000	0.4334	792.	78.80	1.024
C2	10.86	0.000	0.1127	193.	10.94	0.129
CO2	0.42	0.000	0.0064	0.	0.42	0.005
C3	6.28	1.728	0.0956	158.	6.33	0.071
IC4	1.01	0.330	0.0203	33.	1.02	0.011
NC4	1.54	0.485	0.0309	50.	1.56	0.017
IC5	0.36	0.132	0.0090	14.	0.36	0.004
NC5	0.27	0.098	0.0067	11.	0.27	0.003
C6+	0.34	0.149	0.0109	17.	0.34	0.004
	100.00	2.922	0.735	1273.	1251.	1.277

BASE MOL% 100.74

Attachment 13

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JAN 25 1984

OIL CON. DIV.

DIST. 3

Attachment 14

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

OIL-FIELD WATER ANALYSIS REPORT

DATE: November 22, 1983

REPORTED TO: Amoco Production Company
501 Airport Drive
Farmington, NM 87401

FURNISHED BY: Morris Bell

COPIES TO:

LABORATORY No. 4-216-1

PAGE: 1/1

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

Field	Legal Description	County or Parish	State
Basin Dakota	Unit N, Sec. 29, T26N, R5W	Rio Arriba	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
155 Jicarilla Contract	20	7250	Dakota	

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

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	1700	74
Calcium, Ca	47	2.3
Magnesium, Mg	34	2.8
Barium, Ba		
Potassium	27	0.7

ANIONS		
Chloride, Cl	2600	73
Sulfate, SO_4	85	1.7
Carbonate, CO_3	none	none
Bicarbonate, HCO_3	168	2.7

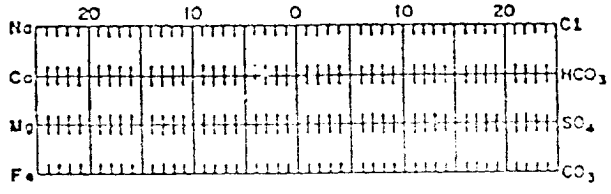
Total Dissolved Solids	4672
Iron, Fe (total)	
Sulfide, as H_2S	

OTHER PROPERTIES

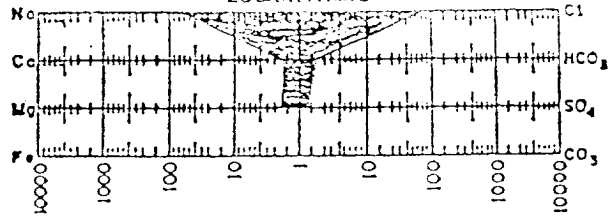
pH	7.84
Specific Gravity, 60/60 F.	1.0063
Resistivity (ohm-meters) 72 F.	1.25

WATER PATTERNS — *me/l*

STANDARD



LOGARITHMIC



Date Received	Preserved	Date Analyzed	Analyzed By
11-18-83		11-18-83	NO

REMARKS & RECOMMENDATIONS:

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OIL CON. DIV.
DIST. 3

TEH, Inc.

By

Attachment 15
Allocation of Production

Average Gas Production		Average Condensate Production
Dakota	112 MCFD	2.9 BOPD
Mesaverde	18 MCFD	1.6 BOPD
Total	130 MCFD	4.5 BOPD

Allocate 86% gas production and 64% condensate production to the Basin Dakota horizon.

Allocate 14% gas production and 36% 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 6, 1984

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

Bureau of Land Management
Caller Service 4104
Farmington, NM 87499

Marathon Oil Company
P. O. Box 120
Casper, WY 82601

File: DHS-8-986.510.1

Proposed Downhole Commingling of Jicarilla Contract 155 No. 20,
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. 20, Unit N, Section 29, 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,

MJB/tk
Enclosures

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JAN 25 1984
OIL CON. DIV.
DIST. 3

Waiver

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

_____
Company

_____
By Date

AM13