

**MERIDIAN OIL**

OIL CONSERVATION DIVISION  
ED

'91 JAN 19 AM 9 29

December 19, 1990

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

Re: McClanahan #17E MV/DK  
1460' FSL; 830' FEL  
Section 24, T28N R10W  
San Juan County, N. M.

Dear Mr. LeMay:

Meridian Oil Inc. is applying for an administrative downhole commingling order for the referenced well in the Blanco Mesaverde and Basin Dakota fields. The ownership of the zones to be commingled is common. The offset operator to the south and southeast is Amoco Production Company with Meridian Oil having the remaining acreage surrounding the referenced well. The Bureau of Land Management and this offset operator will receive notification of this proposed downhole commingling.

A packer leakage test conducted in October 1990 indicated that the two producing intervals in the subject well have communicated by either a tubing or packer leak.

This well has produced since 1980 as a dual well from the Dakota and Mesaverde. The well is presently not a good producer due to poor producing efficiency. It has a present producing capacity of only 30 MCF/D and 0 MCF/D, respectively, and both sides are listed as "marginal" in the State Proration Schedule. The cumulative production is 209 MMCF & 1,923 BO from the Dakota and 165 MMCF & 7,323 BO from the Mesaverde, as of April 1, 1990.

The Dakota production is currently being suppressed due to the presence of the well's production packer which limits the Dakota's ability to unload liquid with its small amount of gas volume.

We believe that the Mesaverde has the potential to produce 60-80 MCF/D & 3 BOPD. However, like the Dakota, the Mesaverde does not make sufficient gas to lift the produced liquid. This has resulted in the Mesaverde not producing for the last three years. The commingling of the subject well in the twilight of its producing life will result in better producing efficiency for both

intervals. We believe that the combined gas volume will be sufficient to lift the produced liquids in the near future. A possible future artificial lift system such as a plunger will be much more efficient with the intervals commingled. Granting this application will be in the best interest of conservation, the prevention of waste, and the protection of correlative rights.

Commingling should greatly enhance this well's producing life and its reserves from both producing intervals. We plan to commingle this well by pulling the Mesaverde tubing and the Dakota tubing and packer seal assembly. The permanent packer will be extracted and a single string of tubing run to the lower producing interval.

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. The shut-in pressures for the Mesaverde and Dakota are 610 psi and 630 psi, respectively. The Dakota and Mesaverde have the ability to produce about 1/2 barrel of water per day.

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

Using the well's production from 1985 and 1986, which was before the fluid loading problems developed in either producing interval and before the tubing or packer leak developed, we propose the following production allocation. See the attached calculations.

|               |     |            |     |
|---------------|-----|------------|-----|
| Mesaverde gas | 44% | Dakota gas | 56% |
| Mesaverde oil | 83% | Dakota oil | 17% |

Included with this letter is a plat showing ownership of offsetting leases, a copy of the letter to the offset operator and BLM, production curves, wellbore diagrams both before and after commingling, pertinent data sheet, and an allocation calculation sheet.

Yours truly,

P. M. Pippin  
Sr. Production Engineer

attachments

cc: Frank Chavez - OCD

# MERIDIAN OIL

December 19, 1990

Amoco Production Company  
Attn: Mr. Larry Emmons  
P.O. Box 800  
Denver, Colorado 80201

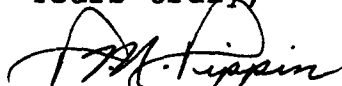
Dear Mr. Emmons:

Meridian Oil, Inc. is in the process of applying for a downhole commingling order for their McClanahan #17E MV/DK well located 1460' FSL 830' FEL, Section 24 T28N R10W, N.M.P.M., San Juan County, New Mexico, in the Blanco Mesaverde and Basin Dakota.

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  
Sr. Production Engineer

PMP:pmp

The above downhole commingling request is hereby approved:

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

# MERIDIAN OIL

December 19, 1990

Bureau of Land Management  
1235 La Plata Hwy.  
Farmington, N. M. 87401

Gentlemen:

Meridian Oil, Inc. is in the process of applying for a downhole commingling order for their McClanahan #17E MV/DK well located 1460' FSL 830' FEL, Section 24 T28N R10W, N.M.P.M., San Juan County, New Mexico, in the Blanco Mesaverde and Basin Dakota.

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Yours truly,



P. M. Pippin  
Sr. Production Engineer

PMP:pmp

The above downhole commingling request is hereby approved:

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

MERIDIAN OIL

Commingle Application for Mesaverde/Dakota  
McClanahan #17E MV/DK  
I 24 28 10  
San Juan County, N.M.

Allocation Calculation

Mesaverde Production (Before fluid loading & Pkr leak)  
70 MCF/D 3.0 BOPD

Dakota Production (before fluid loading & Pkr leak)  
90 MCF/D 0.6 BOPD

Total 160 MCF/D 3.6 BOPD

Mesaverde Gas Allocation =  $\frac{70}{160} = 44\%$

Mesaverde Oil Allocation =  $\frac{3.0}{3.6} = 83\%$

Dakota Gas Allocation =  $\frac{90}{160} = 56\%$

Dakota Oil Allocation =  $\frac{0.6}{3.6} = 17\%$

Pertinent Data Sheet - McCLANAHAN #17E DK

Location: 1460' FSL 830' FEL, SEC. 24 T28N R10W, SAN JUAN COUNTY, N.M.

Field: Basin Dakota  
Blanco Mesaverde

Elevation: 5889' GR  
12' KB

TD: 6589'  
PBTD: 6587'

Completed: 4-16-80

GWI: 100.000%  
NRI: 80.625%

Initial Potential:

MV: SICP= 969 psi      AOF= 1337 MCF/D      Q=479 MCF/D  
DK: SICP= 1005 psi      AOF= 242 MCF/D      Q=242 MCF/D

Casing Record:

| <u>Hole Size</u> | <u>Csg. Size</u> | <u>Wt. &amp; Grade</u> | <u>Depth Set</u> | <u>Cement</u> | <u>Top/Cmt.</u> |
|------------------|------------------|------------------------|------------------|---------------|-----------------|
| 12-1/4"          | 8-5/8"           | 24.0# K-55             | 220'             | 140 sx        | circ cmt        |
| 7-7/8"           | 5-1/2"           | 15.5# K-55             | 6589'            | 180 sx        |                 |
|                  |                  |                        | DV tool @ 4681'  | 200 sx        |                 |
|                  |                  |                        | DV tool @ 2233'  | 270 sx        | circ cmt        |

Tubing Record: 2-1/16      3.25# V-55 IJ      6514'      (197 jts)  
Baker Model R pkr @ 4518'      (4 Blast jts 4301-4422')  
S.N.@ 6513'  
1-1/2"      2.76 V-55 IJ      4415'      (136 jts)  
S.N.@ 4391'

Formation Tops:

|                  |       |           |       |
|------------------|-------|-----------|-------|
| Ojo Alamo (base) | 683'  |           |       |
| Fruitland        | 1780' |           |       |
| Pictured Cliffs  | 2023' | Gallup    | 5490' |
| Chacra           | 3104' | Greenhorn | 6250' |
| Cliffhouse       | 3680' | Graneros  | 6315' |
| Point Lookout    | 4300" | Dakota    | 6434' |

Logging Record: Induction, Density

Stimulation: DAKOTA: Perfed Lower Dakota @ 6495', 6499', 6502', 6505' w/qspf. Total 4 holes. Screened off frac w/11,914# sand (in 30# gel) in formation. Discovered hole in csg @ 3415' & sq w/50 sx cmt. Resq w/50 sx cmt. Perf Dakota @ 6373', 6388', 6440', 6446', 6453' w/1spf. Total 5 holes. Fraced w/30,800# sand in 30# gel.

MESAVERDE: Perfed MV @ 4309', 4316', 4327', 4342', 4348', 4354', 4361', 4368', 4374', 4380', 4396'. Total 11 holes. Fraced w/67,000# sand in water.

Workover History: 3-8-80 Short tbg string parted @ hanger. Repaired.

Production History: First delivered to SUG 7-18-80. Dk cum = 208 MMCF & 1,923 BO.  
MV Cum = 164 MMCF & 7,323 BO.

# MERIDIAN OIL

Commingle Application for Mesaverde/Dakota  
McCLANAHAN #17E MV/DK  
San Juan County, N. M.

MV & DK Proration Units

|              |                      |              |
|--------------|----------------------|--------------|
| T<br>28<br>N |                      |              |
|              | 13                   | 18           |
|              | Meridian Oil         | Meridian Oil |
|              | 24                   | 19           |
|              | McCLANAHAN #17E<br>○ | Meridian Oil |
|              | Meridian Oil         | Meridian Oil |
|              | 25                   | Amoco        |
|              | Amoco                | 30           |
|              | Amoco                | Meridian Oil |
|              | R10W                 | R 9 W        |



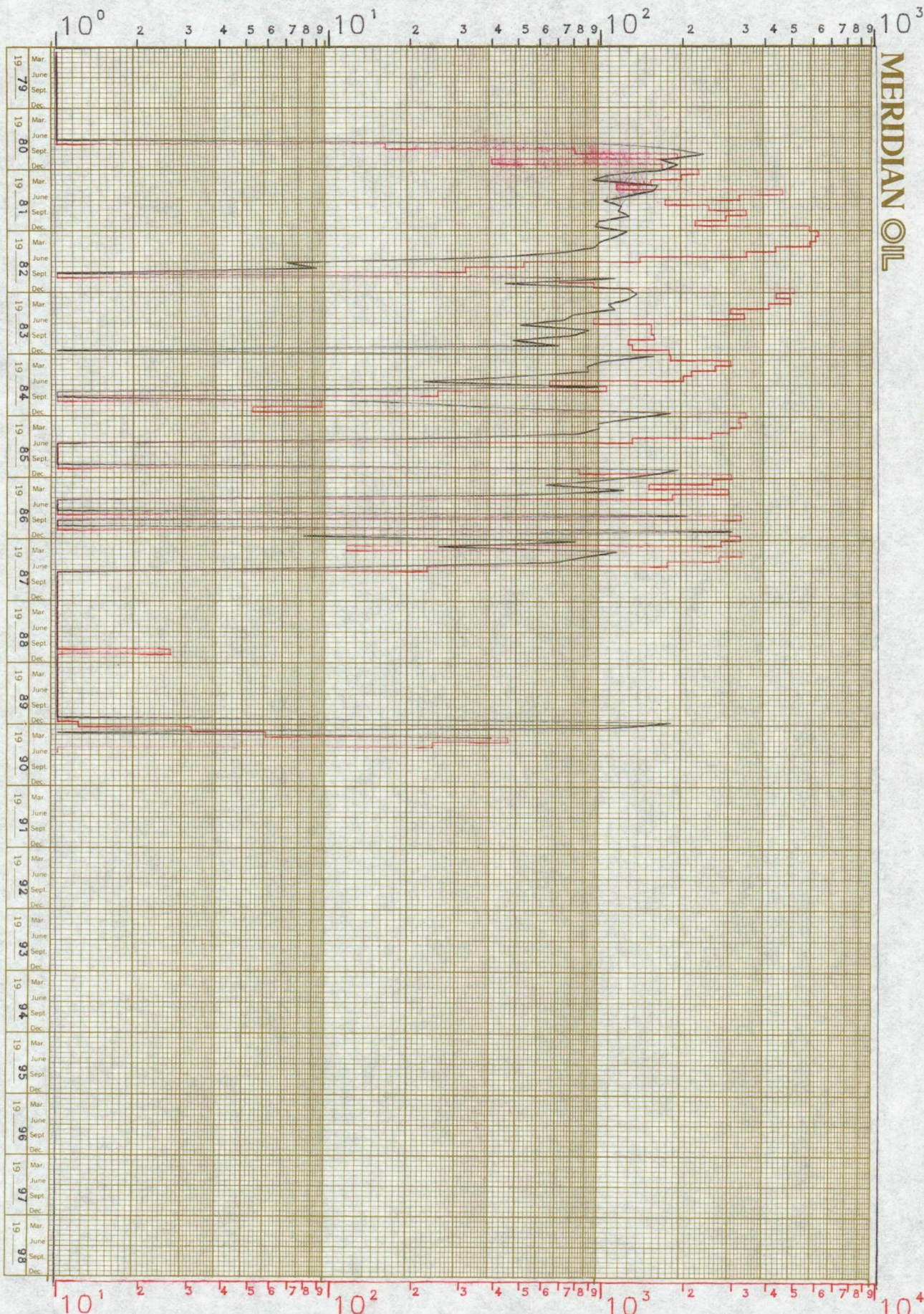
PROJECT : XX  
 STATE : NEW MEXICO  
 COUNTY : SAN JUAN  
 LOCATION : 24128N 10W  
 PAGE NUMBER : 0000002-A

DWIGHTS NUMBER : 30428N10W24100MW  
 LEASE/WELL NAME : MCCLANAHAN  
 RESERVOIR :  
 FIELD :  
 OPERATOR : BLANCO MESAVERDE (PRORATED GAS)  
 SOUTH LAND ROYALTY CO

# MERIDIAN OIL

GROSS OIL (BBL/M)

(LINEAR)



(HISTOGRAM)

GROSS GAS (MCF/M)

OIL BY MONTH

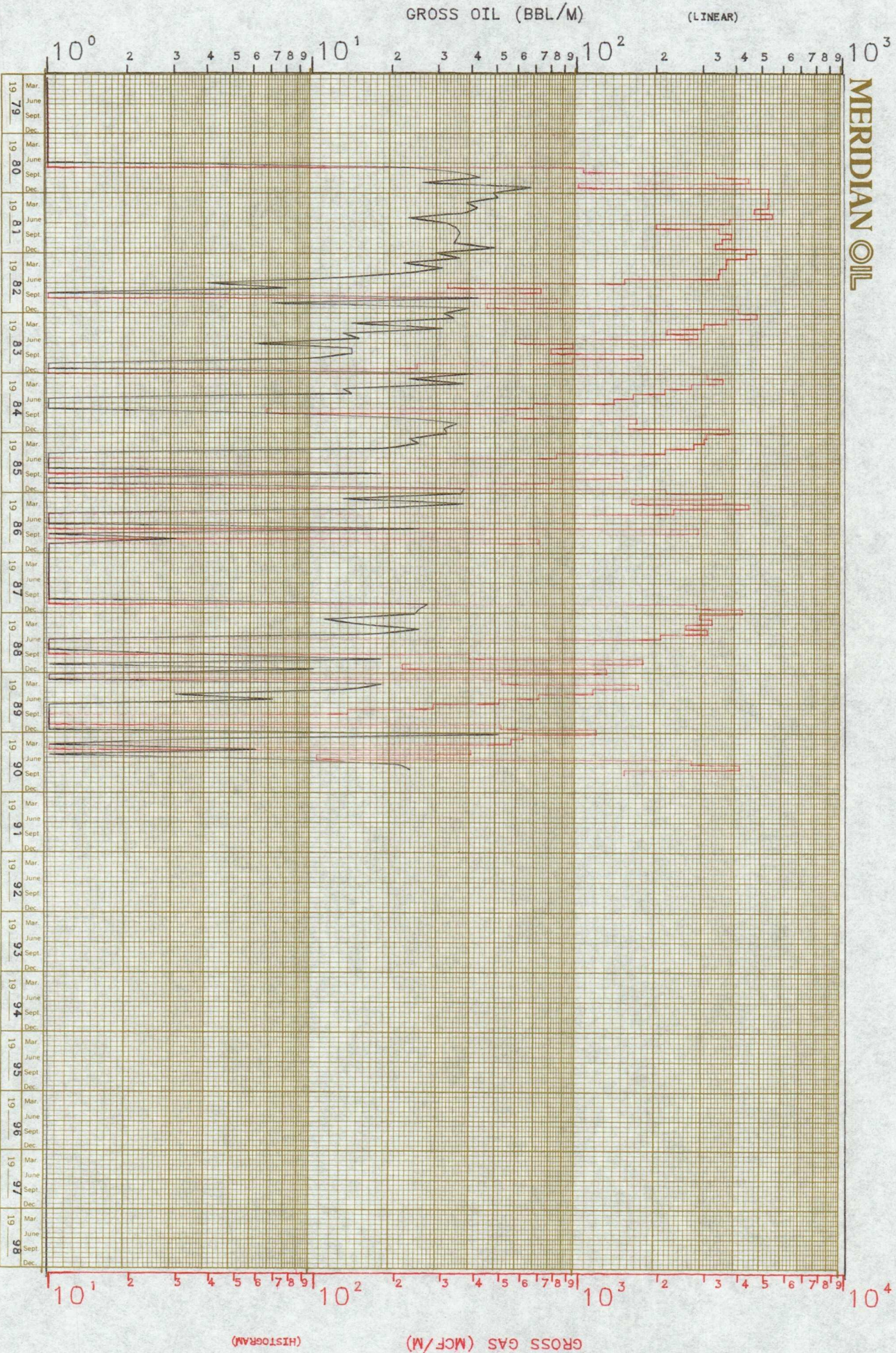
GAS BY MONTH



PROJECT : XX  
 STATE : NEW MEXICO  
 COUNTY : SAN JUAN  
 LOCATION : 24I28N 10W  
 PAGE NUMBER : 0000001-A

DWIGHTS NUMBER : 30428N10W24I00DK  
 LEASE/WELL NAME : MCCLANAHAN  
 RESERVOIR :  
 FIELD : BASIN DAKOTA (PRORATED GAS)  
 OPERATOR : SOUTHLAND ROYALTY CO

MERIDIAN OIL

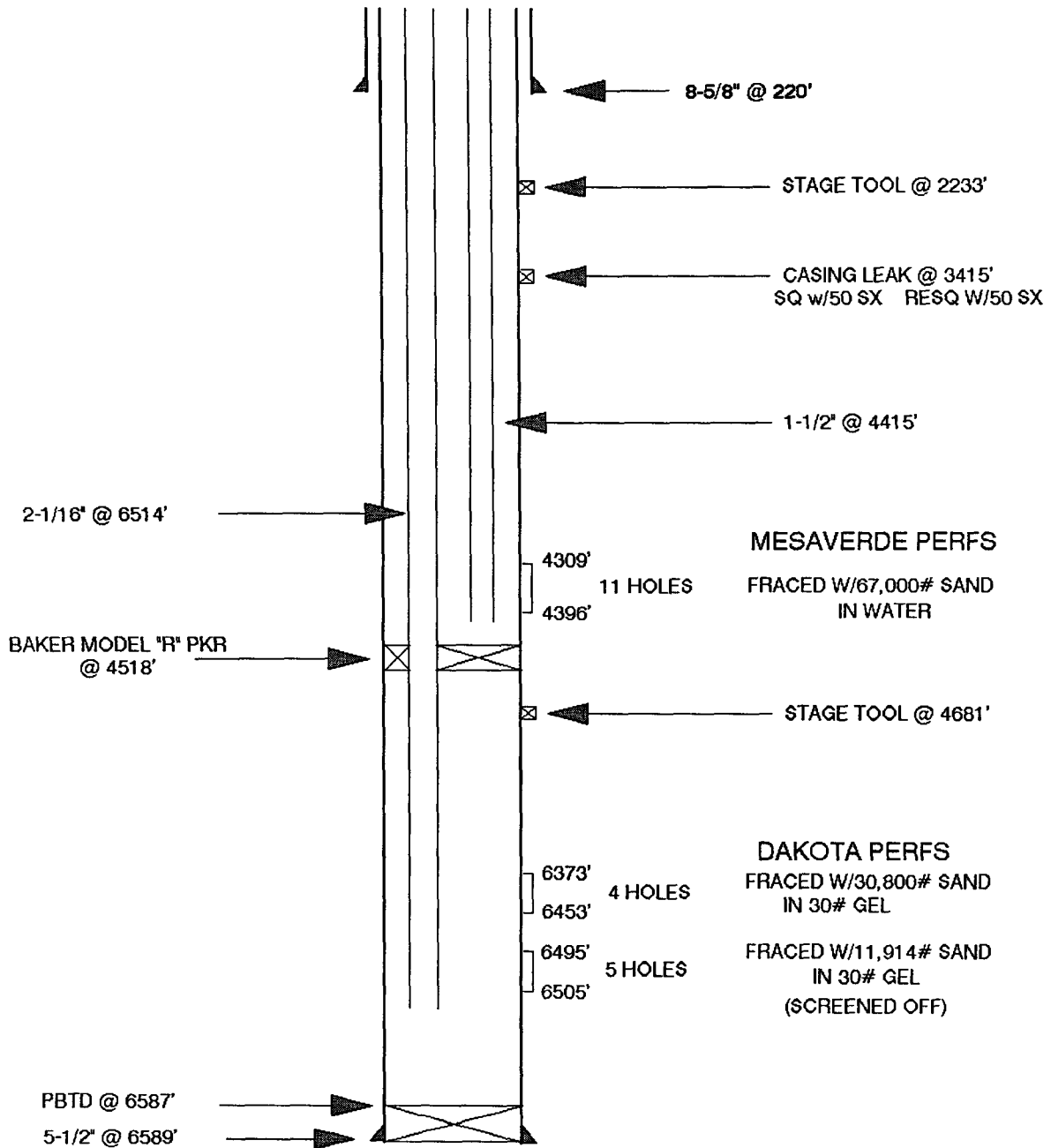




# McCLANAHAN #17E DK

UNIT I SECTION 24 T28N R10W  
SAN JUAN COUNTY, NEW MEXICO

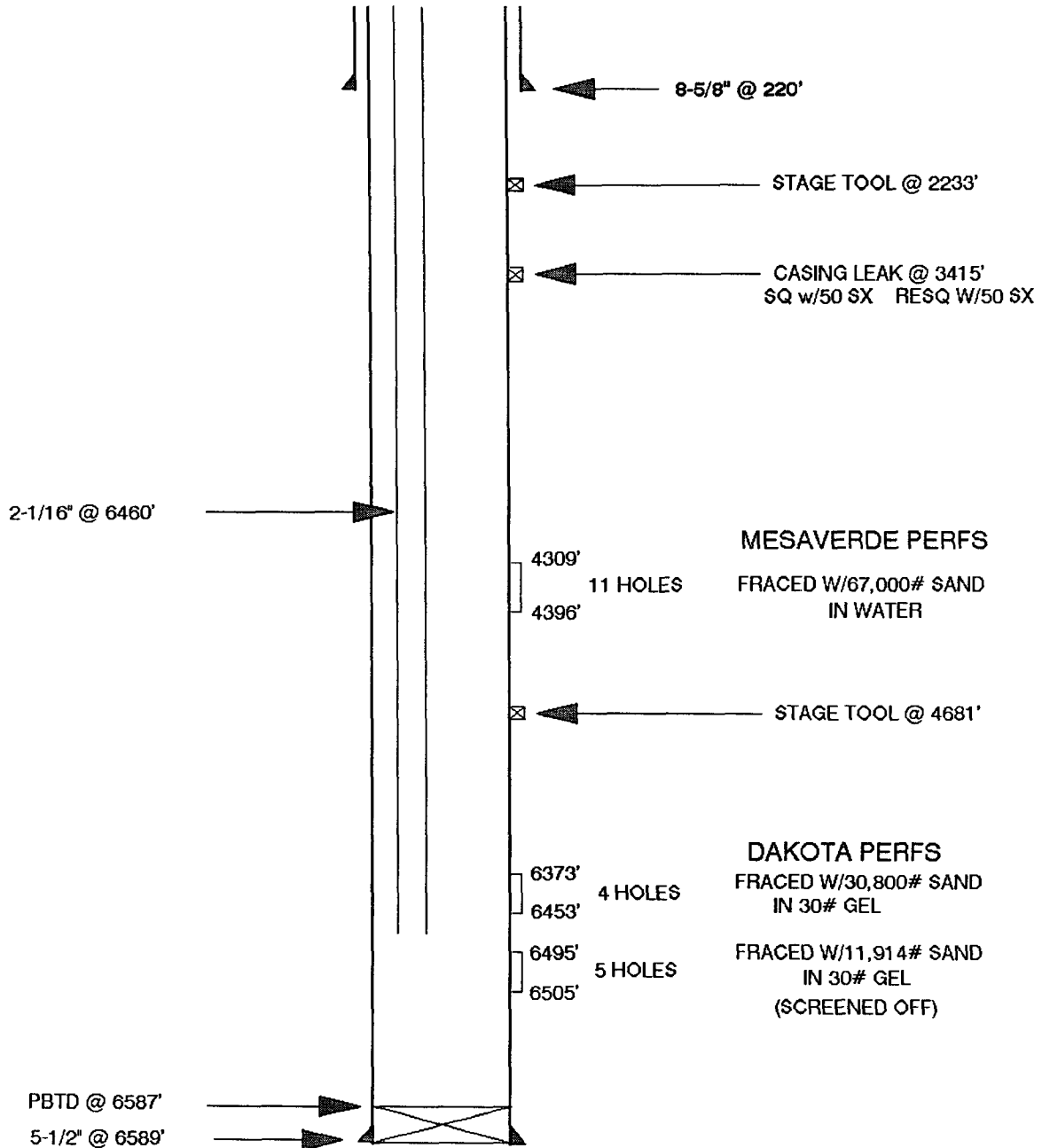
PRESENT



# McCLANAHAN #17E DK

UNIT 1 SECTION 24 T28N R10W  
SAN JUAN COUNTY, NEW MEXICO

AFTER PROPOSED COMMINGLING





STATE OF NEW MEXICO  
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

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

Date: Feb. 4, 1991

*DHC-785*

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

RE: Proposed MC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed NSP \_\_\_\_\_

Proposed DHC X \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed PMX \_\_\_\_\_  
Proposed DD \_\_\_\_\_

Gentlemen:

I have examined the application received on Jan 14, 1991  
for the Mexilia McClanahan #1515  
OPERATOR LEASE & WELL NO.

I-24-28N-110W and my recommendations are as follows:  
UL-S-T-R

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

Yours truly,

*3.8*