

CASE 6440: CAULKINS OIL COMPANY FOR A
DUAL COMPLETION AND DOWNHOLE COMINGLING,
RIO ARriba COUNTY, NEW MEXICO

CASE NO.

6440

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.

STATE OF NEW MEXICO
 ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION
 State Land Office Building
 Santa Fe, New Mexico
 31 January 1979

EXAMINER HEARING

 IN THE MATTER OF:)

Application of Caulkins Oil Company, for) CASE
 a dual completion and downhole commingling) 6440
 Rio Arriba County, New Mexico.)

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
 Division:

Lynn Teschendorf, Esq.
 Legal Counsel for the Division
 State Land Office Building
 Santa Fe, New Mexico 87503

For the Applicant:

W. Thomas Kellahin, Esq.
 KELLAHIN & KELLAHIN
 500 Don Gaspar
 Santa Fe, New Mexico 87501

Nye Reporting Service, Inc.
 Certified Shorthand Reporters
 621 Old Santa Fe Trail - Suite 7
 Santa Fe, New Mexico 87501

I N D E X

PAGE

CHARLES VERQUER

3

Direct Examination by Mr. Kellahin

7

Examination by Mr. Stamets

E X H I B I T S

Exhibit Number One, Ownership Map

7

Exhibit Number Two, Plat of Direct Offset Wells

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Exhibit Number Three, Tabulation of Pressures &
Oil Production for Breech F-8 Well

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Exhibits Four and Four-A, Decline Curves for
Mesaverde and Dakota Zones

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Exhibit Number Five, Well Production Record - 1978

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Exhibit Number Six, Proposed Dual Completion

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Exhibit Number Seven, Mechanics of Commingling

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5 MR. KELLAHIN: Tom Kellahin, Santa Fe, New
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8 the same witness. He's previously qualified and he is still
9 under oath.

10 MR. STAMETS: The record will so show.

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12 CHARLES VERQUER

13 being called as a witness and having been duly sworn upon
14 his oath, testified as follows, to-wit:

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19 marked as Exhibit Number One and identify it and explain what
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19 direct offset wells to this triple completion. It is a stan-
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21 Q Are there any other triple completions in the
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10 that would be the proposed split of the production.

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16 Q In your opinion, is the proposed commingling
17 of the Dakota and Mesaverde formations and then dualing that
18 with the Pictured Cliffs the most effective and efficient
19 method for continuing production from this well?

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21 Q Is the ownership in common with regards to the
22 Dakota and Mesaverde formations?

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3 commingle in the Mesaverde and Dakota in 1978.

4 Q Let's identify the locations, commencing first
5 with the Breech F-4 Well.

6 A Breech F-4 is in Unit A of Section 33, 27
7 north 6 west, which is just one mile west of this well. The
8 Breech 64 is in Unit A of Unit 1 -- excuse me, Section 1,
9 26 north 6 west. 341 is in Unit B, Section 21, 26 north 6
10 west.

11 Q If you will, identify Exhibit Number Six.

12 A Number Six is a proposed dual completion after
13 commingling of the wells. We have a packer now set in the
14 7 and 5/8 Baker Model FA Production Packer at 4600. I
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18 through 2 and 3/8 inch tubing to the surface.

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1 and recover and salvage the inch and a quarter tubing that
2 is being used for the Mesaverde production; and then run
3 2 3/8 tubing or pull 2 3/8 tubing and remove the seals, then
4 run it back in for the commingled production.

5 Q Were Exhibits One through Seven prepared by
6 you?

7 A They were.

8 Q In your opinion, Mr. Verquer, will approval of
9 this application be in the best interests of conservation,
10 prevention of waste and the protection of correlative rights?

11 A It will.

12 MR. KELLAHIN: We move the introduction of
13 Exhibits One through Seven.

14 MR. STAMETS: These Exhibits will be admitted.

15 EXAMINATION

16 BY THE EXAMINER:

17 Q Mr. Verquer, did you say that the ownership of
18 the Mesaverde and Dakota was the same?

19 A Yes, also the Pictured Cliffs.

20 MR. STAMETS: Any other questions of this
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22 It will be taken under advisement.

23 (Hearing Concluded.)

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REPORTER'S CERTIFICATE

I, STEFANIE XANTHULL, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Stefanie Xanthull
STEFANIE XANTHULL, C.S.R.

I do hereby certify that the foregoing is
a complete report of the proceedings in
the hearing of Case No. 6440,
heard, at on 1-31-79.
Richard L. Smith, Examiner
Oil Conservation Division

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ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
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Richard L. Ham, Examiner
Oil Conservation Division

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JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

February 21, 1979

Mr. Tom Kellahin
Kellahin & Kellahin
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: CASE NO. 6440
ORDER NO. R-5924

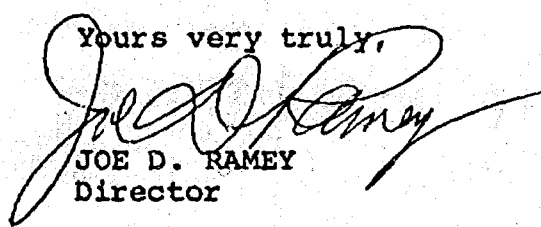
Applicant:

Caulkins Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC _____
Artesia OCC X
Aztec OCC X

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6440
Order No. R-5924

APPLICATION OF CAULKINS OIL COMPANY
FOR A DUAL COMPLETION AND DOWNHOLE
COMMINGLING, RIO ARriba COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 31, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 20th day of February, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Caulkins Oil Company, seeks authority to complete its Breech F Well No. 8, located in Unit A of Section 34, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) to produce gas from the Pictured Cliffs formation through one string of tubing and to produce commingled Mesaverde and Dakota gas production through a second string of tubing.

(3) That from the Mesaverde and Dakota zones, the subject well is capable of low marginal production only.

(4) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

-2-

Case No. 6440
Order No. R-5924

(5) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(6) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(7) That in order to allocate the commingled production to each of the commingled zones in the subject well, 21 percent and 23 percent of the commingled gas and condensate production, respectively, should be allocated to the Mesaverde zone, and 79 percent and 77 percent of the commingled gas and condensate production, respectively, to the Dakota zone.

(8) That Division Order No. R-1430, which authorized the triple completion of the subject well, should be superseded.

(9) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(10) That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to complete its Breech F Well No. 8, located in Unit A of Section 34, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) to produce gas from the Pictured Cliffs formation through one string of tubing and to produce Mesaverde and Dakota gas production, hereby authorized to be commingled in the wellbore, through a second string of tubing with separation of the Pictured Cliffs zone from the other zones achieved by means of a packer set at approximately 4600 feet.

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for gas wells in Northwest New Mexico.

-3-

Case No. 6440
Order No. R-5924

(2) That 21 percent and 23 percent of the commingled gas and condensate production, respectively, shall be allocated to the Mesaverde zone and 79 percent and 77 percent of the commingled gas and condensate production, respectively, shall be allocated to the Dakota zone.

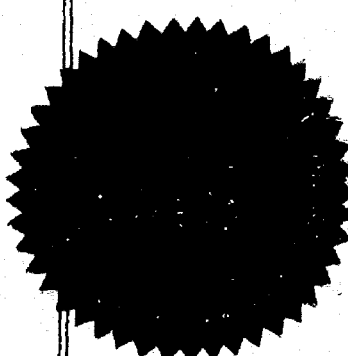
(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) That Division Order No. R-1430 is hereby superseded.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



Joe D. Ramey
JOE D. RAMEY
Director

fd/

GAULKINS OIL COMPANY
Case No.

Proposal

Commingle Mesa Verde and Dakota Zones in:

Breech F 8 Unit A Sec. 27N 6W

and Dual complete in Pictured Cliffs.

All zones marginal.

Ownership and all working interests are common for this well.

Exhibit # 1

Section map showing well and all offset wells.

Exhibit # 2

Plat showing well location and direct offset wells in Section's 27, 34, west half 26, and 35 all in 27N 6W, Section 3, and west half Section 2 in 26N 6W, Rio Arriba County, New Mexico.

Exhibit # 3

Tabulation of all shut in pressures, cumulative yearly gas and oil production, 1959 thru 1977.

Proposed percentage breakdown for each zone.

Exhibit # 4

Pressure and production curves for Mesa Verde zone from tabulation exhibit No. 3.

Exhibit # 4 A

Pressure and production curves for Dakota zone from tabulation exhibit # 3.

Exhibit # 5

Production records previous and after Commingling Mesa Verde and Dakota zones on following wells.

| | | | |
|----------|-----|--------|----------------|
| Breech E | 64 | Unit A | Sec. 1 26N 6W |
| Breech F | 4 | Unit A | Sec. 33 27N 6W |
| Breech D | 341 | Unit B | Sec. 21 26N 6W |

Exhibit # 6

Drawing of Proposed Dual Completion.

Exhibit # 7

Mechanic's

CAULKINS OIL COMPANY

Case No.

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| Breech D | 341 | Unit B | Sec. 21 26N 6W |

Exhibit # 6

Drawing of Proposed Dual Completion.

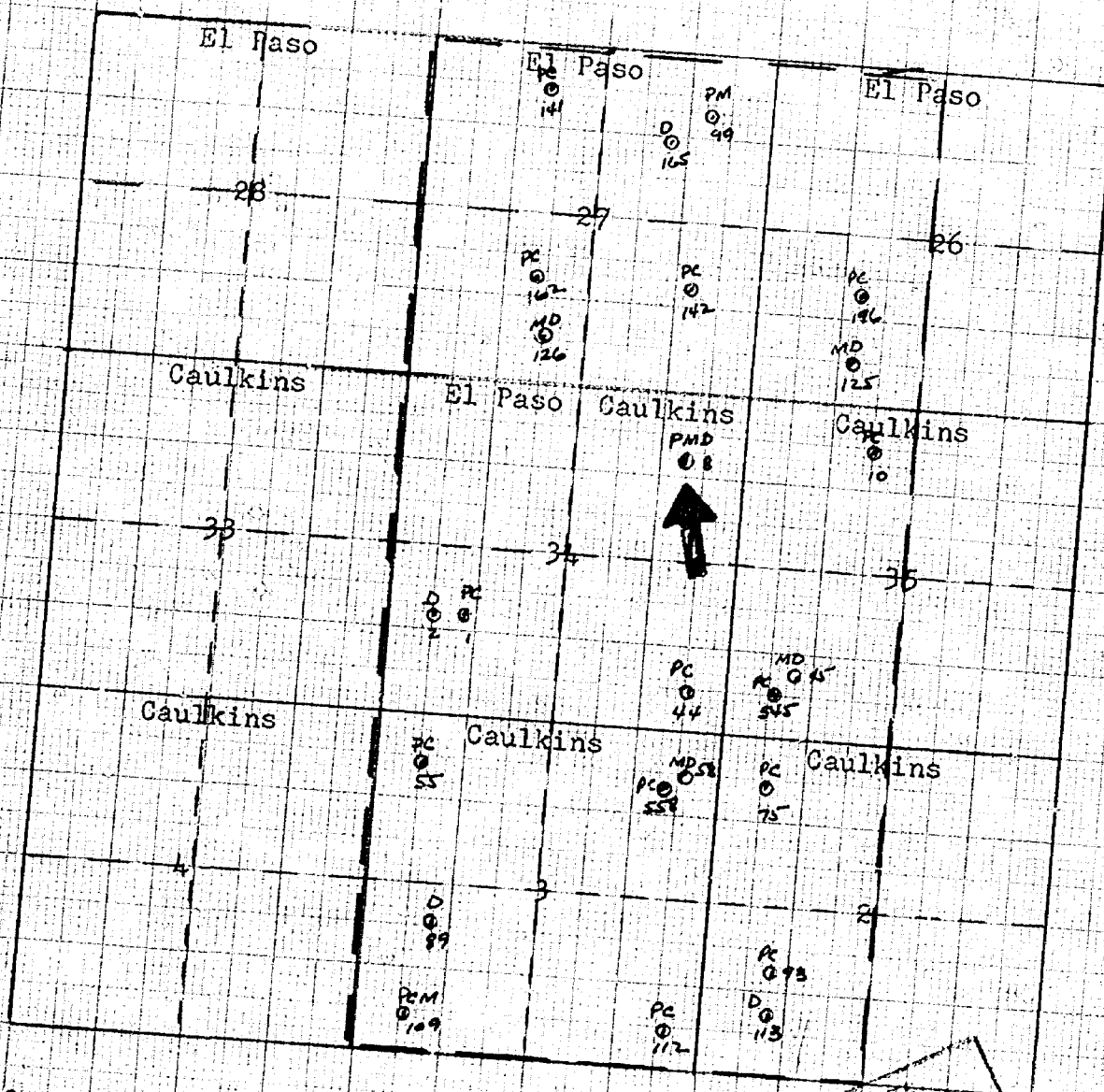
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Mechanic's

CAULKINS OIL COMPANY
 Breech F 8
 Section 34 27N 6W Unit A
 Rio Arriba County, New Mexico

46 1473

10 X 10 TO 15 INCH • 2 1/2 X 10 INCHES
 KEUFFEL & ESSER CO. MADE IN U.S.A.



pc Pictured Cliffs
 pm Pictured Cliffs - Mesa Verde
 d Dakota
 pmd Pictured Cliffs - Mesa Verde
 md Mesa Verde - Dakota
 pcn Pictured Cliffs - Chacra - Mesa Verde

RECEIVED
 SURVEYING DIVISION
 6440 2
 1-31-79

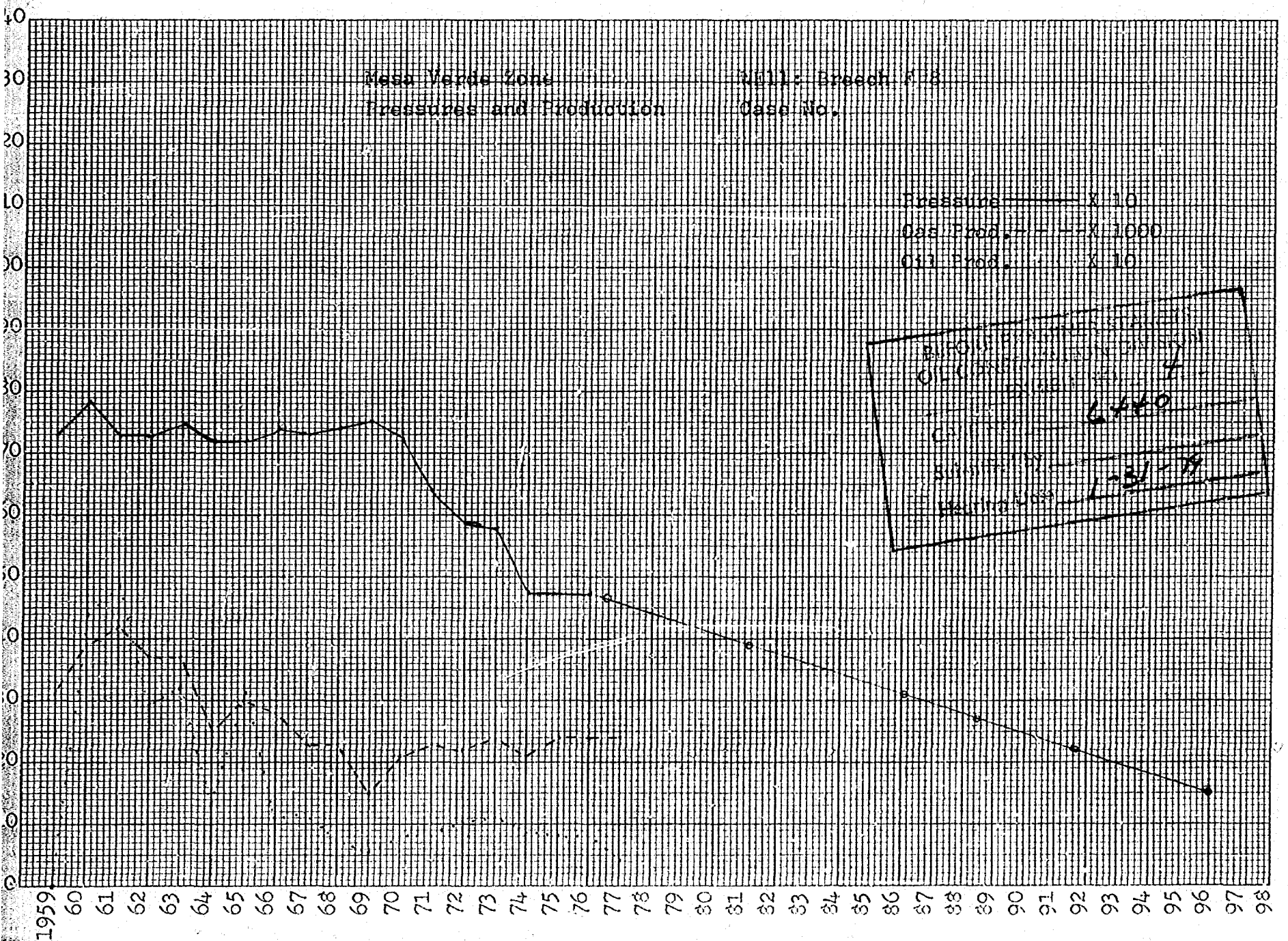
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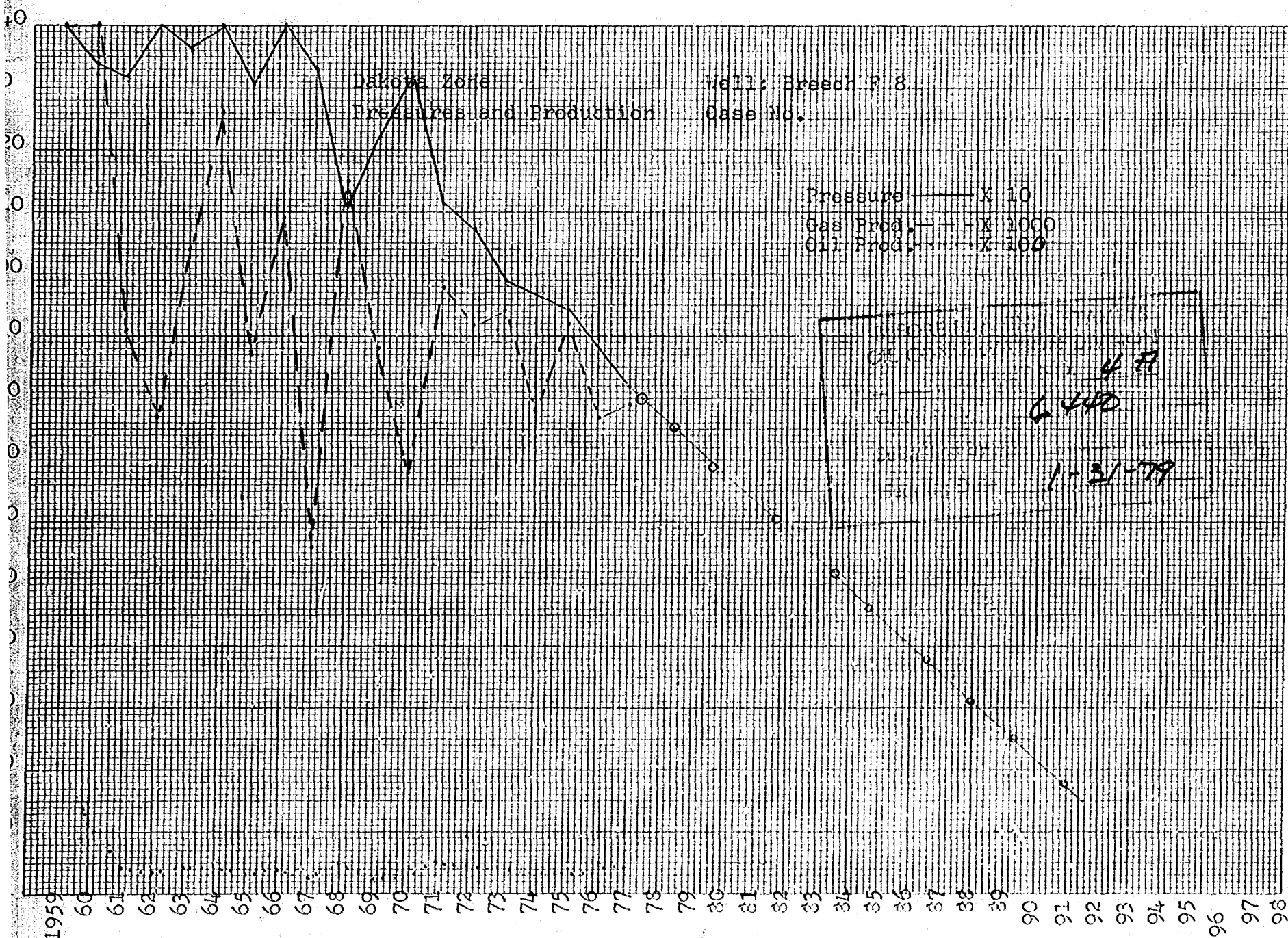
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Yearly Production and Pressures

| | |
|------------------------------|---------|
| BEFORE EXAMINER'S SIGNATURES | |
| OIL CONCENTRATION DIVISION | |
| ENTRY NO. | 3 |
| CASE NO. | 6440 |
| SUBJECT | |
| HEAD CASE NO. | 1-31-79 |

| Mesa Verde Zone | | | | Dakota Zone | | |
|--|----------|-----------|-----------|-------------|-----------|-----------|
| Date | Pressure | Gas Prod. | Oil Prod. | Pressure | Gas Prod. | Oil Prod. |
| 1959 | 732 | 31,413 | 0 | 2037 | 149,265 | 2222 |
| 1960 | 782 | 38,723 | 440 | 1341 | 201,680 | 1173 |
| 1961 | 728 | 41,712 | 483 | 1320 | 91,205 | 439 |
| 1962 | 727 | 36,955 | 293 | 1482 | 76,152 | 344 |
| 1963 | 727 | 37,145 | 320 | 1362 | 104,520 | 441 |
| 1964 | 748 | 25,259 | 136 | 1503 | 126,402 | 439 |
| 1965 | 720 | 29,765 | 310 | 1306 | 87,357 | 304 |
| 1966 | 736 | 27,713 | 108 | 1443 | 108,726 | 371 |
| 1967 | 729 | 22,572 | 117 | 1330 | 55,586 | 234 |
| 1968 | 740 | 23,160 | 73 | 1117 | 115,336 | 502 |
| 1969 | 750 | 14,542 | 58 | 1223 | 88,184 | 235 |
| 1970 | 722 | 21,051 | 79 | 1318 | 67,900 | 245 |
| 1971 | 629 | 22,501 | 82 | 1114 | 98,403 | 499 |
| 1972 | 586 | 22,074 | 102 | 1075 | 92,450 | 490 |
| 1973 | 579 | 23,695 | 112 | 987 | 93,815 | 440 |
| 1974 | 472 | 21,103 | 88 | ----- | 77,916 | 329 |
| 1975 | --- | 23,563 | 77 | 946 | 91,773 | 358 |
| 1976 | 472 | 23,827 | 81 | ----- | 77,495 | 328 |
| 1977 | --- | 24,383 | 40 | 820 | 79,319 | 433 |
| Cum. Total 511,156 | | | 2999 | 1,883,304 | | |
| Gas production 21% Mesa Verde and 79% Dakota | | | | | | |
| Oil production 23% Mesa Verde and 77% Dakota | | | | | | |





Case No. _____

Production records for same period before Cummingling
as period after Cummingling thru November 1978.
Mesa Verde-Dakota Commingling Order No. R-5649

A 33-77-6

Breech F 4
Commingled May, 1978

A 1-24-6

Breech E 64
Commingled April, 1978

B 21-26-6

Breech D 341
Commingled April 1, 1978

| Month | 1977 Combined Production | | 1978 Commingled Production | | 1977 Combined Production | | 1978 Commingled Production | | 1977 Combined Production | | 1978 Commingled Production | |
|-------|--------------------------|-----|----------------------------|-----|--------------------------|-----|----------------------------|-----|--------------------------|-----|----------------------------|-----|
| | Gas | Oil | Gas | Oil | Gas | Oil | Gas | Oil | Gas | Oil | Gas | Oil |
| April | | | | | 6231 | 16 | 16,116 | 89 | 11,255 | 78 | 9673 | 89 |
| May | | | | | 7663 | 14 | 13,456 | 45 | 10,563 | 70 | 8884 | 84 |
| June | 7848 | 78 | 6957 | 130 | 6888 | 15 | 12,137 | 43 | 11,345 | 50 | 11,960 | 97 |
| July | 11,238 | 50 | 6922 | 68 | 7426 | 20 | 11,013 | 34 | 8424 | 45 | 10,394 | 75 |
| Aug. | 10,661 | 60 | 7704 | 79 | 6102 | 12 | 5288 | 3 | 9756 | 86 | 7996 | 41 |
| Sept. | 8741 | 21 | 4144 | 6 | 7383 | 16 | 10,618 | 54 | 9903 | 18 | 7997 | 56 |
| Oct. | 10,745 | 87 | -0- | -0- | 7374 | 8 | 13,786 | 53 | 11,305 | 98 | 11,573 | 23 |
| Nov. | 11,095 | 32 | 12,390 | 122 | | | | | 12,747 | 164 | 12,203 | 77 |
| Dec. | 60,328 | 328 | 38,117 | 405 | 49,067 | 101 | 82,384 | 321 | 85,298 | 609 | 80,680 | 542 |

Mechanical problems and high line pressure during Sept and Oct 1978 affected production. November production indicates well production normal.

Obstruction in tubing affected production before Cummingling

High line pressure's during Aug. and Sept, 1978 affected production. October and November production normal.

| | |
|---------------------------|---------|
| BEFORE EXAMINER STAMETS | |
| OIL CONSERVATION DIVISION | |
| EXHIBIT NO. | 5 |
| CASE NO. | 6440 |
| Submitted by | |
| Hearing Date | 1-31-78 |

CAULKINS OIL COMPANY

Case No. Breech F 8

Exhibit # 7

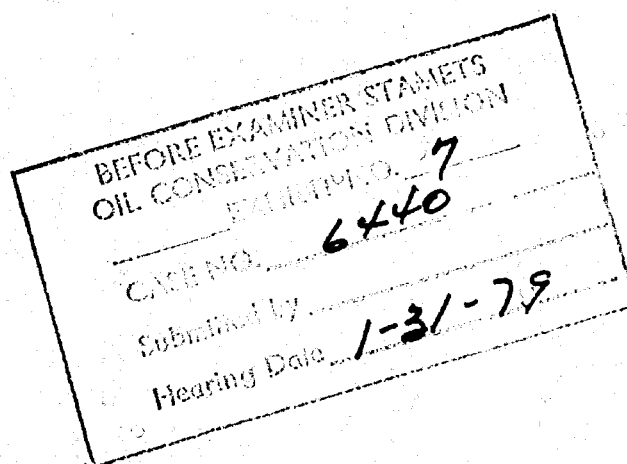
Mechanic's

3/4" EUE tubing now in well too Pictured Cliffs will be pulled and salvaged. (Tubing now plugged, so unable to clean well.)

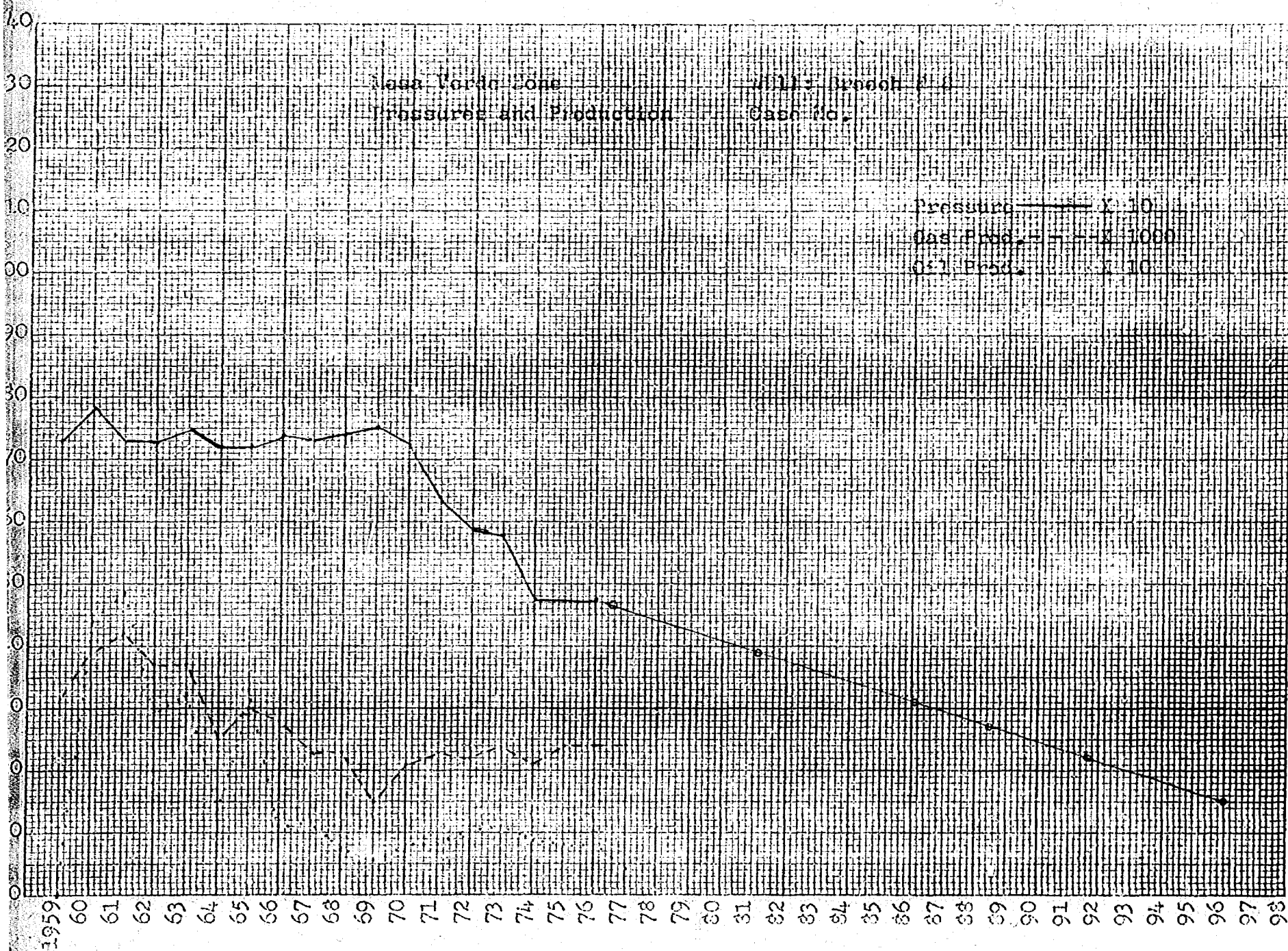
1 1/4" EUE tubing now in well to Packer @ 4600' will be pulled and salvaged.

2 3/8" tubing now in well to Dakota will be pulled, Seal assy. now in Packer @ 7370' will removed then. 2 3/8" tubing will be run to Dakota Perforations with Seals in Model F A Packer @ 4600'.

Commingle Mesa Verde and Dakota will flow to surface thru 2 3/8" tubing. 1" tubing NU 10 RD Thd tubing will be run to Pictured Cliffs Perforations.



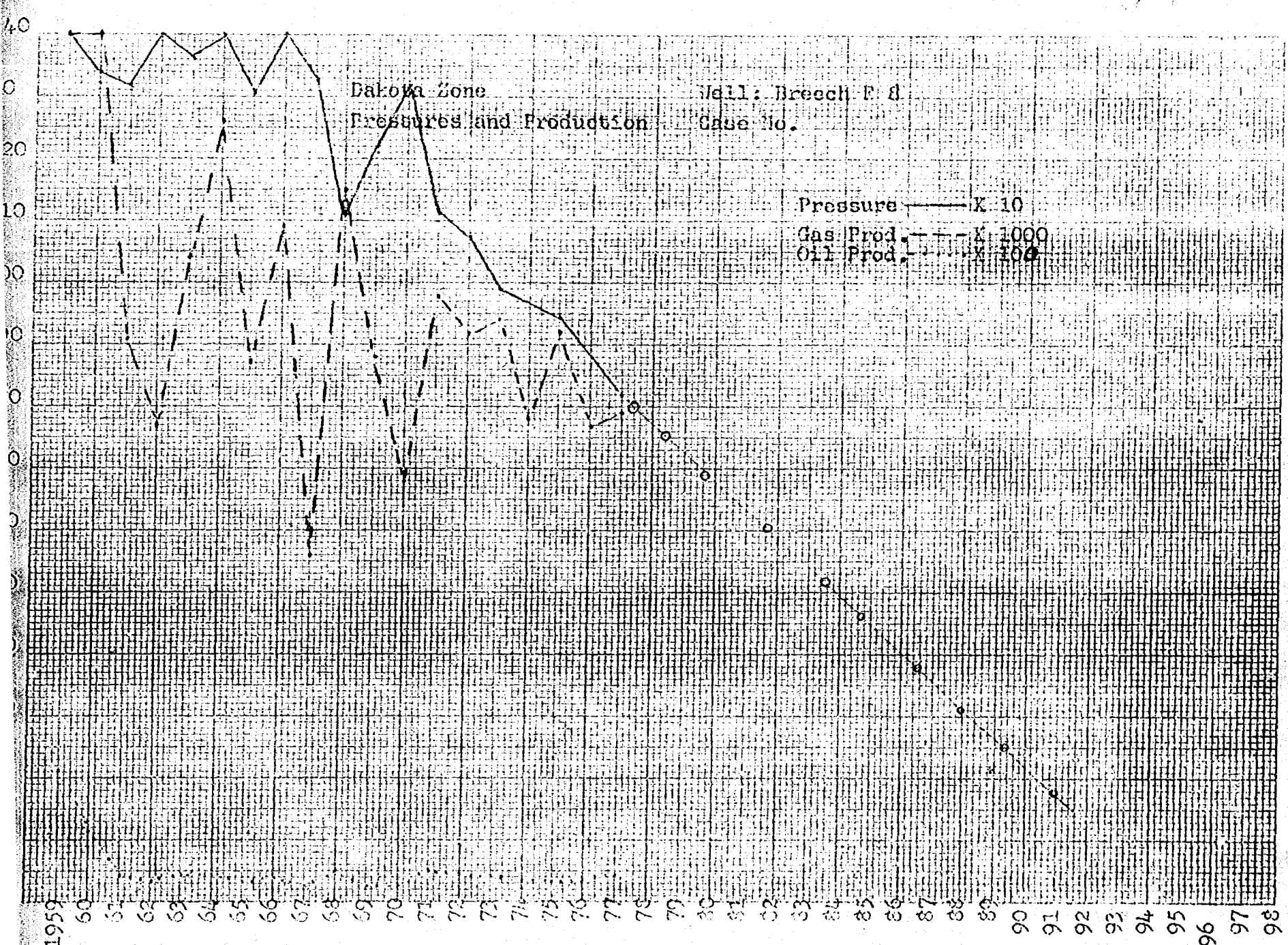
6740
674



10 X 10 TO 4 INCH 2 10 INCHES
1000 PSI KELFEL & ESSER CO. MINNAPOLIS

46 1323

2110
G. H.



Case No. 6440
Ex. 5

Production records for same period before Cummingling
as period after Cummingling thru November 1978.
Mesa Verde-Dakota Commingling Order No. R-5649

| Breach F 4 Commingled May, 1978 | | Breach E 64 Commingled April, 1978 | | Breach D 341 Commingled April 1, 1978 | |
|------------------------------------|-------------------------------|---------------------------------------|-------------------------------|--|-------------------------------|
| 1977 Combined Production | 1978 Commingled Production | 1977 Combined Production | 1978 Commingled Production | 1977 Combined Production | 1978 Commingled Production |
| Gas Oil | Gas Oil | Gas Oil | Gas Oil | Gas Oil | Gas Oil |
| 7848 78 | 6957 130 | 6231 16 | 16,116 89 | 11,255 78 | 9673 89 |
| 11,238 50 | 6922 68 | 7663 14 | 13,456 45 | 10,563 70 | 8884 84 |
| 10,661 60 | 7704 79 | 6888 15 | 12,137 43 | 11,345 50 | 11,960 97 |
| 8741 21 | 4144 6 | 7426 20 | 11,013 34 | 8424 45 | 10,394 75 |
| 10,745 87 | -0- -0- | 6102 12 | 5288 3 | 9756 86 | 7996 41 |
| 11,095 32 | 12,390 122 | 7383 16 | 10,618 54 | 9903 18 | 7997 56 |
| | | 7374 8 | 13,786 53 | 11,305 98 | 11,573 23 |
| | | | | 12,747 164 | 12,203 77 |
| 60,328 328 | 38,117 405 | 49,067 101 | 82,384 321 | 85,298 609 | 80,680 542 |

Mechanical problems and high line pressure during Sept and Oct 1978 affected production. November production indicates well production normal.

A-33-27-6W

Obstruction in tubing affected production before Cummingling.

A-1-26-6W

High line pressure's during Aug. and Sept, 1978 affected production. October and November production normal.

B-21-26-6W

6940
ex. 7

CAULKINS OIL COMPANY

Case No. Breech F 8

Exhibit # 7

Mechanic's

3/4" EUE tubing now in well too Pictured Cliffs will be pulled and salvaged. (Tubing now plugged, so unable to clean well.)

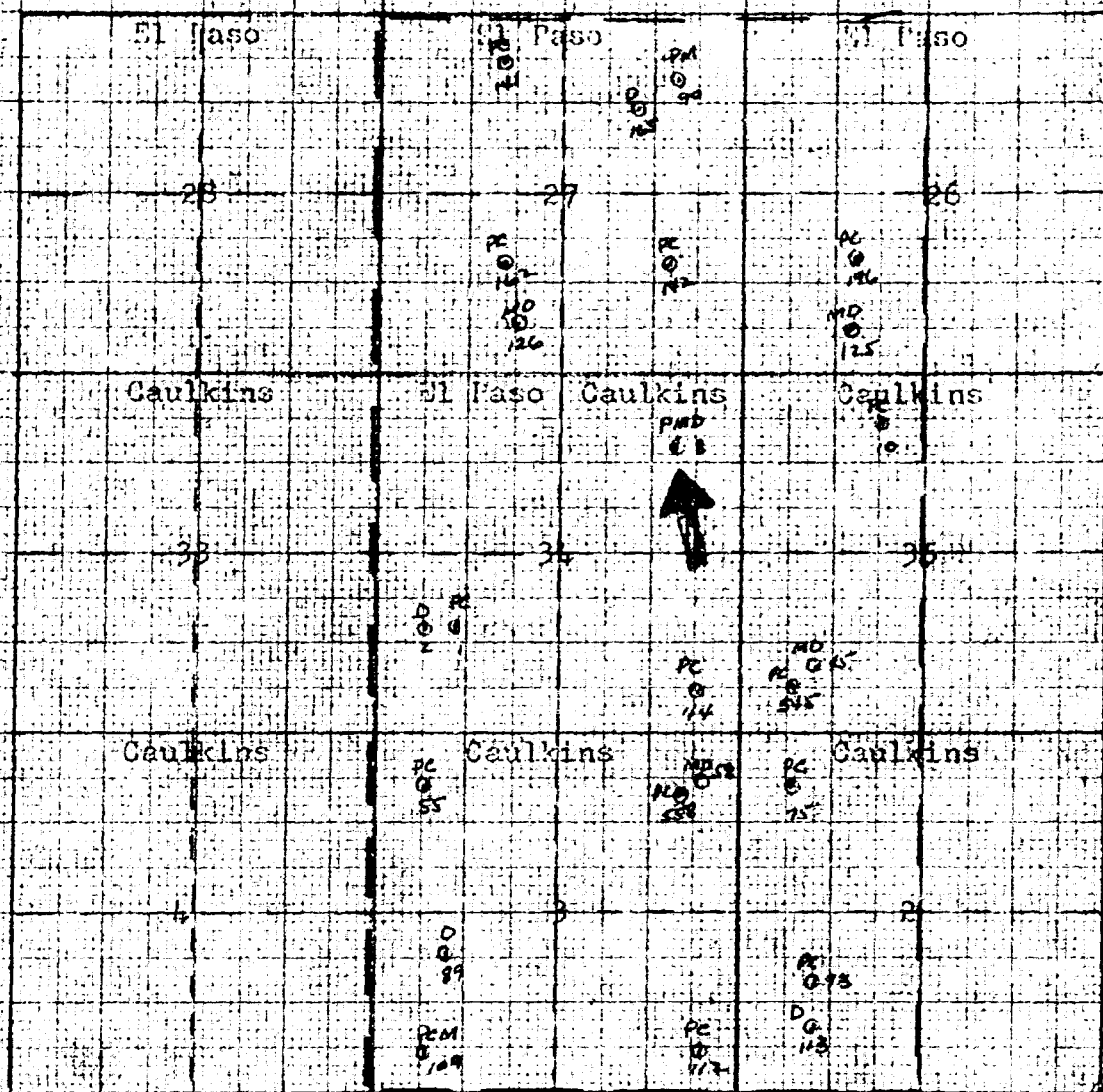
1 1/4" EUE tubing now in well to Packer @ 4600' will be pulled and salvaged.

2 3/8" tubing now in well to Dakota will be pulled, Seal assy. now in Packer @ 7370' will removed then. 2 3/8" tubing will be run to Dakota Perforations with Seals in Model F A Packer @ 4600'.

Commingled Mesa Verde and Dakota will flow to surface thru 2 3/8" tubing. 1" tubing NU 10 RD Thd tubing will be run to Pictured Cliffs Perforations.

10 X 10 TO 12 INCH • 17 X 17 INCHES
KEUFFEL & ESSER CO. NEW YORK

CAULKING OIL COMPANY
Brough F. 8
Section 34 274-67 Unit A
Rio Arriba County, New Mexico



| | |
|-----|---------------------------------------|
| pc | Pictured Cliffs |
| pla | Pictured Cliffs - Mesa Verde |
| d | Dakota |
| pm | Pictured Cliffs - Mesa Verde - Dakota |
| ml | Mesa Verde - Dakota |
| pcn | Pictured Cliffs - Chacra - Mesa Verde |

6440
Ex 3

BREECH F 8
Unit A Section 34 27N 6W
Yearly Production and Pressures

| Mesa Verde Zone | | | | Dakota Zone | | |
|-----------------|----------|-----------|-----------|-------------|-----------|-----------|
| Date | Pressure | Gas Prod. | Oil Prod. | Pressure | Gas Prod. | Oil Prod. |
| 1959 | 732 | 31,413 | 0 | 2037 | 149,265 | 2222 |
| 1960 | 782 | 38,723 | 440 | 1341 | 201,680 | 1173 |
| 1961 | 728 | 41,712 | 483 | 1320 | 91,205 | 439 |
| 1962 | 727 | 36,955 | 293 | 1482 | 76,152 | 344 |
| 1963 | 727 | 37,145 | 320 | 1362 | 104,520 | 441 |
| 1964 | 748 | 25,259 | 136 | 1503 | 126,402 | 439 |
| 1965 | 720 | 29,765 | 310 | 1306 | 87,357 | 304 |
| 1966 | 736 | 27,713 | 108 | 1443 | 108,726 | 371 |
| 1967 | 729 | 22,572 | 117 | 1330 | 55,586 | 234 |
| 1968 | 740 | 23,160 | 73 | 1117 | 115,336 | 502 |
| 1969 | 750 | 14,542 | 58 | 1223 | 88,184 | 235 |
| 1970 | 722 | 21,051 | 79 | 1318 | 67,900 | 245 |
| 1971 | 629 | 22,501 | 82 | 1114 | 98,403 | 499 |
| 1972 | 586 | 22,074 | 102 | 1075 | 92,450 | 490 |
| 1973 | 579 | 23,695 | 112 | 9987 | 93,815 | 440 |
| 1974 | 472 | 21,103 | 88 | ---- | 77,916 | 329 |
| 1975 | --- | 23,563 | 77 | 946 | 91,773 | 358 |
| 1976 | 472 | 23,827 | 81 | ---- | 77,495 | 328 |
| 1977 | --- | 24,383 | 40 | 820 | 79,319 | 433 |
| Cum. Total | | 511,156 | 2999 | 1,683,304 | | 9826 |

Gas production 21% Mesa Verde and 79% Dakota

Oil production 23% Mesa Verde and 77% Dakota

Dockets Nos. 5-79 and 6-79 are tentatively set for hearing on February 14 and 28, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

Docket No. 4-79

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 31, 1979

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 6422: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Helton Engineering & Geological Services, Inc., Travelers Indemnity Company, and all other interested parties to appear and show cause why the Brent Well No. 1 located in Unit M of Section 29 and the Brent Well No. 3 located in Unit G of Section 19, both in Township 13 North, Range 6 East, Sandoval County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6415: (Continued from January 17, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp thru Devonian formations underlying the W/2 of Section 20, Township 14 South, Range 36 East, Lea County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6419: (Continued from January 17, 1979, Examiner Hearing)

Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Lanning JC Well No. 1 located in Unit B of Section 7, Township 18 South, Range 26 East, Eagle Creek Field, Eddy County, New Mexico, to produce gas from the Strawn formation through the casing-tubing annulus and from the Morrow formation through tubing.

CASE 6423: Application of Yates Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jackson AT Well No. 9 located 660 feet from the South and West lines of Section 13, Township 17 South, Range 25 East, Eddy County, New Mexico, to test the Wolfcamp, Pennsylvanian, and Mississippian formations, the S/2 of said Section 13 to be dedicated to the well.

CASE 6424: Application of Yates Petroleum Corporation for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Superior Fed. KJ Well No. 1 located 990 feet from the North and West lines of Section 7, Township 20 South, Range 29 East, Eddy County, New Mexico, to test the Wolfcamp and Pennsylvanian formations, the N/2 of said Section 7 to be dedicated to the well.

CASE 6425: Application of T. B. Knox Estate for exception to Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing/cementing rules for the Oil-Potash Area as promulgated by Order No. R-111-A to permit its Lucia Brookes Well No. 2 located in Unit K of Section 14, Township 18 South, Range 30 East, Eddy County, New Mexico, to be completed in the following manner: set surface casing and circulate cement; eliminate salt protection string; and do not circulate cement on production casing.

CASE 6426: Application of C. W. Trainer for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be located 660 feet from the North and West lines of Section 24, Township 20 South, Range 32 East, South Salt Lake-Morrow Pool, Lea County, New Mexico, the N/2 of said Section 24 to be dedicated to the well.

CASE 6427: Application of Caribou Four Corners, Inc., for an unorthodox well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Caribou/Kirtland Well No. 1 to be located 1214 feet from the North line and 650 feet from the East line of Section 13, Township 29 North, Range 15 West, Cha Cha-Gallup Pool, San Juan County, New Mexico, the E/2 NE/4 to be dedicated to the well.

CASE 6428: Application of Mobil Oil Corporation for the amendment of Order No. R-5801, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5801 to delete the requirements for lined tubing in injection wells in the North Vacuum Abo East Pressure Maintenance Project, Lea County, New Mexico.

- CASE 6429:** Application of Zia Energy, Inc., for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its Elliott State Well No. 2 to be located in Unit B of Section 34, Township 20 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6430:** Application of Phoenix Resources Company for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Buckhorn Canyon Unit Area comprising 23,009 acres, more or less, of Federal and state lands in Township 19 South, Ranges 19 and 20 East, Chaves County, New Mexico.
- CASE 6431:** Application of HNG Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the N/2 of Section 35, Township 23 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6432:** Application of John Yuronka for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langlie Mattix Pool underlying the NE/4 NW/4 and the SE/4 NW/4 of Section 29, Township 24 South, Range 37 East, Lea County, New Mexico, to form two 40-acre units, each to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the wells and a charge for risk involved in drilling said wells.
- CASE 6433:** Application of Cities Service Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formations underlying the S/2 of Section 8, Township 23 South, Range 28 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6434:** Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its State "O" Well No. 5 to be located in Unit H of Section 30, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6435:** Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its W. A. Weir "B" Well No. 3 located in Unit B of Section 26, Township 19 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6436:** Application of Amerada Hess Corporation for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of its State "U" Gas Com Well No. 2 to be located in Unit C of Section 32, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well, and further seeks approval of a waiver of existing well-spacing requirements.
- CASE 6437:** Application of Curtis Little for approval of infill drilling and a non-standard proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the drilling of a well to be located 1085 feet from the South line and 285 feet from the West line of Section 12, Township 28 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well. Applicant further seeks rescission of Order No. R-4556 and approval of a 344.36-acre non-standard gas proration unit comprising all of Section 11, and Lot 4 and the SW/4 SW/4 of Section 12 for said well.
- CASE 6438:** Application of Caulkins Oil Company for dual completions and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Breech Well No. 812 located in Unit N of Section 18, Township 26 North, Range 6 West, and its Breech Well No. 224-A located in Unit D of Section 13, Township 26 North, Range 7 West, Rio Arriba County, New Mexico, to produce gas from the Dakota formation through a separate string of tubing and to commingle Chacra and Mesaverde production in the wellbores of said wells.

CASE 6439: Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Mesaverde and Dakota production in the wellbore of its Breech A Well No. 229 located in Unit D of Section 17, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 6440: Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Breech F Well No. 8 located in Unit A of Section 34, Township 27 North, Range 6 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Mesaverde and Dakota production in the wellbore of said well.

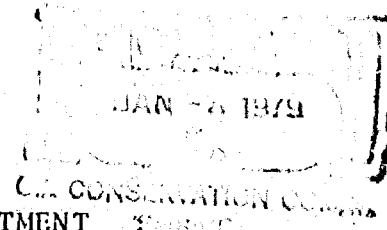
CASE 6441: Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs and Mesaverde production in the wellbore of its Breech F Well No. 12 located in Unit A of Section 35, Township 27 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 6442: Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs, Chacra and Mesaverde production in the wellbore of its Breech E Well No. 109 located in Unit M of Section 3, Township 26 North, Range 6 West, Rio Arriba County, New Mexico.

CASE 6443: Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Breech B Well No. 220-R located in Unit B of Section 14, Township 26 North, Range 7 West, to produce gas from the Dakota formation through a separate string of tubing and to commingle Pictured Cliffs, Chacra and Mesaverde production in the wellbore of said well.

CASE 6444: Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pictured Cliffs, Mesaverde, Chacra and Greenhorn production in the wellbore of its Breech Well No. 224 located in Unit A of Section 13, Township 26 North, Range 7 West, Rio Arriba County, New Mexico.

BEFORE THE
NEW MEXICO ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION



IN THE MATTER OF THE APPLICATION
OF CAULKINS OIL COMPANY FOR
APPROVAL OF DOWNHOLE COMMINGLING
AND A DUAL COMPLETION, RIO ARRIBA
COUNTY, NEW MEXICO

Case 6440

A P P L I C A T I O N

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of downhole commingling and the dual completion of its ^{Breach F} Well No. 8, located in Unit A, Section 34, Township 27 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. The subject well is presently producing as a triple completion from the Pictured Cliffs, Mesaverde and Dakota formations. In order to achieve more efficient operation of the well and prolong its productive life, applicant proposes to commingle production from the Mesaverde and Dakota formations, and dually complete the commingled production with the Pictured Cliffs formation.

2. Approval of this application is in the interests of conservation and the prevention of waste, and will result in the production of gas and liquid hydrocarbons that would not otherwise be produced.

WHEREFORE Applicant prays that this application be set for hearing at the last examiner hearing in January, 1979, and that after notice and hearing as required by law, the

Division enter its order granting approval of downhole
commingling and the dual completion as requested.

Respectfully submitted,
CAULKINS OIL COMPANY

By *James Kellahin*
Kellahin & Fox
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

JAN - 8 1979
OIL CONSERVATION DIVISION

BEFORE THE
NEW MEXICO ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION
OF CAULKINS OIL COMPANY FOR
APPROVAL OF DOWNHOLE COMMINGLING
AND A DUAL COMPLETION, RIO ARriba
COUNTY, NEW MEXICO

Case 6440

A P P L I C A T I O N

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of downhole commingling and the dual completion of its Well No. 8, located in Unit A, Section 34, Township 27 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. The subject well is presently producing as a triple completion from the Pictured Cliffs, Mesaverde and Dakota formations. In order to achieve more efficient operation of the well and prolong its productive life, applicant proposes to commingle production from the Mesaverde and Dakota formations, and dually complete the commingled production with the Pictured Cliffs formation.

2. Approval of this application is in the interests of conservation and the prevention of waste, and will result in the production of gas and liquid hydrocarbons that would not otherwise be produced.

WHEREFORE Applicant prays that this application be set for hearing at the last examiner hearing in January, 1979, and that after notice and hearing as required by law, the

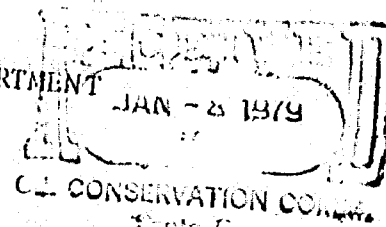
Division enter its order granting approval of downhole
commingling and the dual completion as requested.

Respectfully submitted,
CAULKINS OIL COMPANY

By Jason K.ullah
Kellahin & Fox
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

BEFORE THE
NEW MEXICO ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION



IN THE MATTER OF THE APPLICATION
OF CAULKINS OIL COMPANY FOR
APPROVAL OF DOWNHOLE COMMINGLING
AND A DUAL COMPLETION, RIO ARriba
COUNTY, NEW MEXICO

A P P L I C A T I O N

Case 6440

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of downhole commingling and the dual completion of its Well No. 8, located in Unit A, Section 34, Township 27 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. The subject well is presently producing as a triple completion from the Pictured Cliffs, Mesaverde and Dakota formations. In order to achieve more efficient operation of the well and prolong its productive life, applicant proposes to commingle production from the Mesaverde and Dakota formations, and dually complete the commingled production with the Pictured Cliffs formation.

2. Approval of this application is in the interests of conservation and the prevention of waste, and will result in the production of gas and liquid hydrocarbons that would not otherwise be produced.

WHEREFORE Applicant prays that this application be set for hearing at the last examiner hearing in January, 1979, and that after notice and hearing as required by law, the

Division enter its order granting approval of downhole
commingling and the dual completion as requested.

Respectfully submitted,

CAULKINS OIL COMPANY

By Jason Kellahin
Kellahin & Fox
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6440

Order No. R-5924

APPLICATION OF CAULKINS OIL COMPANY
FOR A DUAL COMPLETION AND DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 o'clock a.m. on
January 31, 1979, at Santa Fe, New Mexico, before
Examiner Richard L. Stamets.

NOW, on this day of February, 1979, the
Division Director, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Division has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Caulkins Oil Company,
seeks authority to complete its Breech F Well No. 8
Well No. _____, located in Unit A of Section 34, Town-
ship 27 North, Range 6 West, NMPM, Rio Arriba
County, New Mexico, as a dual completion (conventional) to
(combination)
(tubingless)

-----oil-
produce gas from the Pictured Cliffs formation through one
separate string of tubing and to ~~commingle~~ produce commingled Mesaverde and Dakota gas
production ~~in the wellbore~~ of said well through a second
string of tubing

Mesaverde and Dakota zone 51

(3) ~~14~~ That from the _____, the subject well is capable of low marginal production only.

~~(5) That from the _____ zone, the subject well is capable of low marginal production only.~~

(4) (6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(5) (7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(6) (8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Datee district office of the Division any time the subject well is shut-in for 7 consecutive days.

(7) (9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 21 percent and 23 percent of the commingled gas and condensate production, ^{respectively,} should be allocated to the Mesaverde zone, and 79 percent and 77 percent of the commingled gas and condensate production, ^{respectively,} to the Dakota zone.

(ALTERNATE)

(9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the _____ district office of the Division and determine an allocation formula for each of the production zones.

(which authorized the tripartite completion of the subject well)

(8) That Division Order No. R-1430, Shou 1d be superseded.

(9) ~~13~~ That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(10) ~~14~~ That approval of the subject application will prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to complete its Breech F Well No. 8, located in Unit A of Section 34, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico, as a dual completion (conventional) ~~(combination)~~ ~~(tubingless)~~

~~--oil--~~
to produce gas from the Pictured Cliffs formation through ~~one separate~~ string of tubing and to ~~commingle~~ ^{produce} Mesaverde and ^{gas} ~~Dakota~~ production ^{hereby authorized to be commingled} in the wellbore ~~of said well~~. Through a second string of tubing with separation of the Pictured Cliffs zone from the other zones achieved by

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce said well in accordance with the provisions of Rule 112-A of the Division Rules and Regulations insofar as said rule is not inconsistent with this order;

PROVIDED FURTHER, that the applicant shall take packer leakage tests upon completion and annually thereafter during the Annual Deliverability Test Period for the gas wells in Northwest New Mexico. Pool

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

means of a packer set at approximately 4600 feet

IT IS THEREFORE ORDERED:

(1) That the applicant, _____, is hereby authorized to commingle _____ and _____ production within the wellbore of the _____, located in Unit _____ of Section _____, Township _____, Range _____, NMPM, _____ County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the _____ district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That ^{respectively,} 21 percent and 23 percent of the commingled gas and condensate production shall be allocated to the Mesaverde zone and ^{respectively,} 79 percent and 77 percent of the commingled gas and production shall be allocated to the Dakota zone.

Condensate

(3) That the operator of the subject well shall immediately notify the Division's Artec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

(4) That Division Order No R-1430 is hereby superseded.