

CASE 6444: CAULKINS OIL COMPANY FOR
DOWNHOLE COMMINGLING, RIO ARriba COUNTY,
NEW MEXICO

CASE NO.

6444

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,

ETC.

Memo

From

6444 A. R. KENDRICK
Supervisor

To Ernie: # 224

One copy for your
case file:

R-5927

One copy for the
well file.

AP



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

July 25, 1979

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-8178

Mr. Charles E. Varquer
Caulkins Oil Company
P. O. Box 780
Farmington, NM 87401

Re: Downhole Commingled Production
Caulkins Oil Company
Breach #224
A-13-26N-7W

Dear Mr. Varquer:

The production percentage breakdown for the various zones of the captioned well are:

Pictured Cliffs	25% of all gas
Chacra	30% of all gas
Mesaverde	33% of all gas, 60% of all oil
Greenhorn	12% of all gas, 40% of all oil

Each transporter is being advised by copy of this letter.

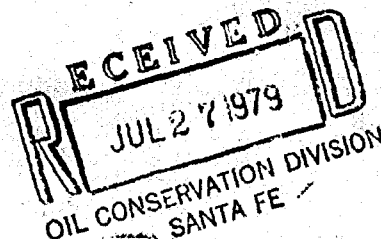
Yours very truly,

A. R. Kendrick

A. R. Kendrick
Supervisor, District #3

ARK: mc

xc: Oil Conservation Division, Santa Fe
Gas Transporter - Gas Company of New Mexico
Oil Transporter - Shell Pipeline



CAULKINS OIL CO.

Post Office Box 780
Farmington, New Mexico 87401
July 17, 1979

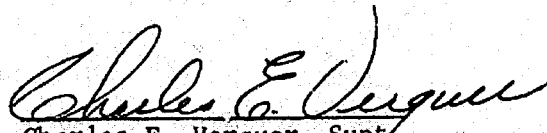
Mr. A. R. Kendrick
Supervisor Dist. # 3
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

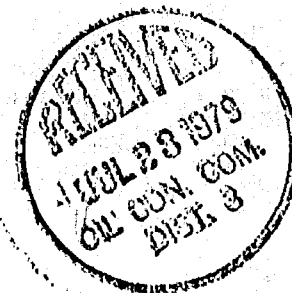
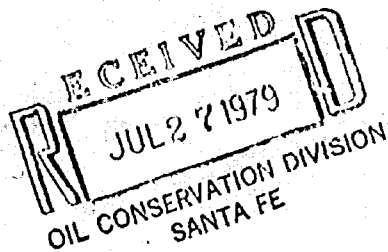
Dear Al:

As per our discussion in your office July 13, 1979, following is recommended production breakdown for our Well No. 224, Unit A - Section 13 - 26 North - 7 West, Rio Arriba County, New Mexico.

Pictured Cliffs Zone	25% of all Gas
Chacra Zone	30% of all Gas
Mesa Verde Zone	33% of all Gas and 60% of all Oil
Greenhorn Zone	12% of all Gas and 40% of all Oil

Sincerely,


Charles E. Verquer, Supt.
Caulkins Oil Company





BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

July 25, 1979

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
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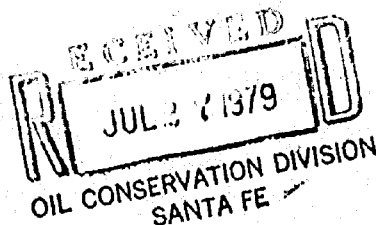
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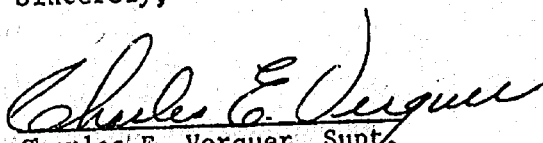
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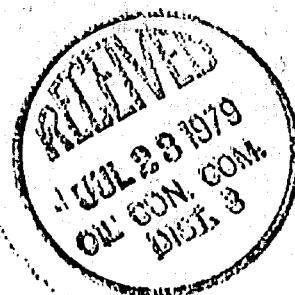
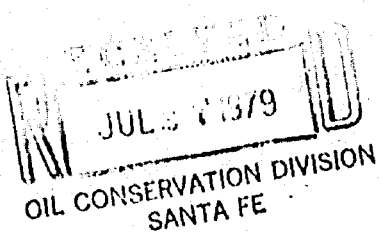
Dear Al:

As per our discussion in your office July 13, 1979, following is recommended production breakdown for our Well No. 224, Unit A - Section 13 - 26 North - 7 West, Rio Arriba County, New Mexico.

Pictured Cliffs Zone	25% of all Gas
Chacra Zone	30% of all Gas
Mesa Verde Zone	33% of all Gas and 60% of all Oil
Greenhorn Zone	12% of all Gas and 40% of all Oil

Sincerely,


Charles E. Verquer, Supt.
Caulkins Oil Company



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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) CASE
for downhole commingling, Rio Arriba) 6444
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 Bldg.
Santa Fe, New Mexico 87503

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

I N D E X

CHARLES VERQUER

Direct Examination by Mr. Kellahing
Examination by Mr. Stamets

PAGE

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9

E X H I B I T S

Exhibit Number One, Ownership Map

9

Exhibit Number Two, Plat of Well

9

Exhibit Number Three, USGS Form 9331

9

Exhibit Number Four, Pressure and Production
Tabulations

9

Exhibit Number Five, Pressure and Production
Curves for Pictured Cliffs Zone

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Exhibit Number Five-A, Mesaverde Oil and Gas
Production

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Exhibit Number Five-B, Decline Curve for Greenhorn
Zone

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Exhibit Number Six, Well No. 193 Record

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Exhibit Number Seven, Chacra Section Electric Log

9

Exhibit Number Eight, Well History

9

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Certified Shorthand Reporters
621 Old Santa Fe Trail - Suite 7
Santa Fe, New Mexico 87501

1 MR. STAMETS: Call the next case, 6444.

2 MS. TESCHENDORF: Case 6444, Application of the
3 Caulkins Oil Company for downhole commingling, Rio Arriba
4 County, New Mexico.

5 MR. KELLAHIN: I'm Tom Kellahin, Santa Fe, New
6 Mexico, appearing on behalf of the applicant. I'd like the
7 record to reflect that Mr. Verquer is already qualified as
8 an expert and that he is also still under oath.

9 MR. STAMETS: The record will so show.

10
11 CHARLES VERQUER

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

14
15 DIRECT EXAMINATION

16 BY MR. KELLAHIN:

17 Q Mr. Verquer, will you refer to Exhibit Number
18 One and identify the subject wells?

19 A That's a map of the Caulkins property. All the
20 shaded area being property operated by Caulkins. The well in
21 question is identified by a red arrow, Well No. 224 in Section
22 13, 26 north 7 west. It's in the Unit A.

23 Q What's the significance of the red circle?

24 A The red circle is the well that was completed
25 in the Pictured Cliffs-Chacra-Mesaverde that was commingled

Nye Reporting Service, Inc.
Certified Shorthand Reporters
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Santa Fe, New Mexico 87501

1 those three zones in 1978. I just identified it with a
2 circle.

3 Q Exhibit Number Two?

4 A Is a plat showing this well and all direct
5 offsets?

6 Q Exhibits Number Three?

7 A Exhibit Number Three is an approved copy of the
8 USGS Form Number 9-331-A -- just 9331, approving the tempor-
9 ary plugging of the Greenhorn zone in the wells.

10

11 Q How is the well currently completed?

12 A This well is currently completed as a dual
13 Pictured Cliffs-Mesaverde.

14 Q What do you propose to do?

15 A I propose to recomplete this well. The log
16 shows the Chacra zone in the well, so I propose to perforate
17 and frac the Chacra zone; then ask for permission to com-
18 mingle the Pictured Cliffs, Chacra, Mesaverde and the Green-
19 horn that is temporarily shut in below.

20 Q Exhibit Number Four?

21 A This is the pressure and production tabulations
22 for this yearly tabulation for this Pictured Cliffs-Mesaverde
23 and the Greenhorn zone when it was produced up until 1966.

24 Q The Chacra has never been produced?

25 A Negative.

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1 Q This is the tabulation for this particular well?

2 A Yes, sir, for the three zones that have been
3 produced in this well.

4 Q How do you propose to allocate the production
5 among all these zones?

6 A Well, I came up with a formula down here that
7 will be very interesting. I anticipate total production of
8 500 Mcf per day and from the 1977 production records, the
9 Pictured Cliffs produced an average of 130 Mcf per day;
10 Mesaverde produced 208. That left a balance of 162 Mcf per
11 day. December, 1979 Chacra production records for Well No.
12 193, which is Section 7-26-6, a direct offset well in the
13 Chacra zone produced 80 Mcf per day. That leaves a balance
14 of 82 Mcf per day and that's how I arrived at a total figure,
15 anticipating the 500,000 per day. I came up with a break-
16 down of 26% of all the gas for the Pictured Cliffs; 17% to
17 the Chacra; 40% of the gas and 53% of the oil production for
18 the Mesaverde; and 17% of all the gas production and 47% of
19 the oil production for the Greenhorn.

20 Q Is the ownership in all the zones common?

21 A They are common.

22 Q Do you anticipate any difficulty in commingling
23 the oil and gas zones?

24 A With the past record of the wells that has been
25 produced, this Greenhorn is something that is a little

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1 different. We don't have that many records on it. I do know
2 that when we tried to produce it from '59 through '65, that
3 the paraffin that is produced with that oil -- that paraffin-
4 based oil created mechanical problems in the tubing and the
5 annular area as it was completed. And it curtailed both the
6 Greenhorn and the Mesaverde zones, the way we had to produce
7 it. That was the reason for temporarily abandoning the well.

8 Q How was the Greenhorn and Mesaverde produced
9 at the time?

10 A I have in one of these other Exhibits -- I have
11 a well history here. On Exhibit Eight, Order number R-1457,
12 approved the triple completion of the Pictured Cliffs, Mesa-
13 verde and Greenhorn in such a manner as to produce the gas
14 from the Pictured Cliffs zone through inch and one-quarter
15 tubing, the production of gas from the Greenhorn zone through
16 2 3/8 tubing from below the lower packer, 5153; thence through
17 one inch non-offset tubing to the surface and the production
18 of the gas from the Mesaverde zone through the annulus be-
19 tween the 7 1/8 tubing and the 2 3/8 tubing and that created
20 more problems than just a little bit. They both paraffined
21 off.

22 Q Does your proposed method of commingling elim-
23 inate the potential damage to any of the gas zones by the
24 paraffin production?

25 A From my experience, producing paraffin-based

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1 oil, if you have any butane or propane -- which the Pictured
2 Cliffs will produce some -- it will keep your paraffin clean
3 By commingling and coming through the tubing, it should by
4 perpetual motion keep the wells clean. Also by having 2 3/8
5 tubing to the Greenhorn, by running knives and so forth, you
6 have mechanical means that you can keep the tubing clear
7 where it's physically impossible the way it was produced be-
8 fore.

9 Q Let's look at Exhibit Number Five.

10 A That's the pressure and production curves for
11 the Pictured Cliffs zone. The dark line is the pressure
12 decline and the hachured line is production from the Pictured
13 Cliffs zone.

14 Q Exhibit Number Six?

15 A Is the Mesaverde pressure, oil and gas pro-
16 duction. The solid line being the pressure, the hachured
17 line is the gas production, the dotted line is the oil pro-
18 duction.

19 Q Exhibit Number Seven?

20 A Is the decline curve for the Greenhorn zone
21 at the time that it was produced prior to temporarily aban-
22 doning it in 1966.

23 Q I'm sorry. I had identified those Exhibits as
24 five, six, and seven, and you have them labeled as five,
25 five-A and five-B. Let's look at Exhibit Six now.

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Certified Shorthand Reporters
621 Old Santa Fe Trail - Suite 7
Santa Fe, New Mexico 87501

1 A Exhibit Six is a well record for the Chacra
2 zone on Well No. 193 in Section 7-26-6, direct offset to this
3 well and that was just come up with that 107 average that I
4 came up with when I calculated the breakdown for these zones.

5 Q Exhibit Number Seven?

6 A Copy of the electric log of the Chacra section
7 in this well.

8 Q In your opinion, is there production available
9 in the Chacra zone in this particular well?

10 A Yes.

11 Q Let's look at Exhibit Number Eight again.

12 A Okay. I tried to give a well history with an
13 explanation of why and so forth and the mechanics of what we
14 propose to do with the well.

15 Q In your opinion, Mr. Verquer, if this applica-
16 tion is approved, will it allow you to produce gas and oil
17 that would not otherwise be produced?

18 A That's correct.

19 Q In your opinion, is this the most efficient
20 and economic way in which to produce all the zones in this
21 well?

22 A It is.

23 Q Were Exhibits One through Eight prepared by you?

24 A They were.

25 Q In your opinion, will approval of this

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Certified Shorthand Reporters
621 Old Santa Fe Trail - Suite 7
Santa Fe, New Mexico 87501

1 application prevent waste and protect correlative rights?

2 A It will.

3 MR. KELLAHIN: Move the introduction of Exhibits
4 One through Eight.

5 MR. STAMETS: These Exhibits will be admitted.
6

7 EXAMINATION

8 BY THE EXAMINER:

9 Q Mr. Verquer, I presume you have no objection to
10 the same high pressure productivity requirements we talked
11 about in 6438?

12 A Right.

13 Q I presume you would not object with consulting
14 with the District Supervisor to determine an allocation for-
15 mula after completion?

16 A No.

17 MR. STAMETS: Any other questions of the
18 witness? He may be excused. Anything further in this case?
19 The case will be taken under advisement. The hearing is
20 adjourned.

21 (Hearing Concluded.)
22
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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 correct and true transcript of the proceedings in
the case No. 6444
heard by me on 1-31-79
Richard L. Ham, Examiner
Oil Conservation Division

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

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

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BEFORE: Richard L. Stamets

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Santa Fe, New Mexico 87503

For the Applicant:

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

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Santa Fe, New Mexico 87501

I N D E X

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CHARLES VERQUER

Direct Examination by Mr. Kellahing

Examination by Mr. Stamets

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20 shaded area being property operated by Caulkins. The well in
21 question is identified by a red arrow, Well No. 224 in Section
22 13, 26 north 7 west. It's in the Unit A.

23 Q What's the significance of the red circle?

24 A The red circle is the well that was completed
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Certified Shorthand Reporters
631 Old Santa Fe Trail - Suite 7
Santa Fe, New Mexico 87501

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2 zone on Well No. 193 in Section 7-26-6, direct offset to this
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4 came up with when I calculated the breakdown for these zones.

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17 that would not otherwise be produced?

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20 and economic way in which to produce all the zones in this
21 well?

22 A It is.

23 Q Were Exhibits One through Eight prepared by you?

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4 One through Eight.

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6 EXAMINATION

7 BY THE EXAMINER:

8 Q Mr. Verquer, I presume you have no objection to
9 the same high pressure productivity requirements we talked
10 about in 6438?

11 A Right.

12 Q I presume you would not object with consulting
13 with the District Supervisor to determine an allocation for-
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15 A No.

16 MR. STAMETS: Any other questions of the
17 witness? He may be excused. Anything further in this case?
18 The case will be taken under advisement. The hearing is
19 adjourned.

20 (Hearing Concluded.)

21
22
23
24
25

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

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, C.S.R.

I do hereby certify that the foregoing is
a correct and true transcript of the hearing in
the hearing room of the Oil Conservation Division on 1-31-79.
6444
1979
Richard L. Hamt
Oil Conservation Division Examiner

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



JERRY APODACA
GOVERNOR

NICK FRANKLIN
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

February 21, 1979

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

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

Re: CASE NO. 6444
ORDER NO. R-5927

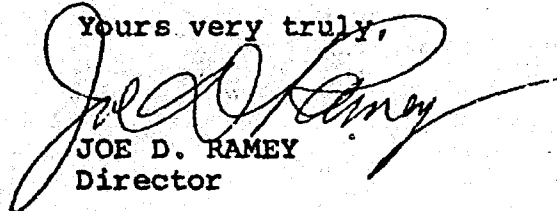
Applicant:

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 x
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. 6444
Order No. R-5927

APPLICATION OF CAULKINS OIL COMPANY
FOR 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, is the owner and operator of the Breech Well No. 224 located in Unit A of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.
- (3) That the applicant seeks authority to commingle Pictured Cliffs, Chacra, Mesaverde and Greenhorn production within the wellbore of the above-described well.
- (4) That from the Pictured Cliffs zone, the subject well is capable of low marginal production only.
- (5) That from the Chacra zone, the subject well is expected to be capable of low marginal production only.
- (6) That from the Mesaverde zone, the subject well is capable of low marginal production only.

-2-

Case No. 6444
Order No. R-5927

(7) That from the Greenhorn zone, the subject well is capable of low marginal production only.

(8) 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.

(9) 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.

(10) 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 of the pressure and productivity encountered upon completion and further notify said district office any time the subject well is shut-in for 7 consecutive days.

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

(12) That the Director of the Division should be authorized to rescind the commingling authority granted by this order whenever it appears that waste would be prevented thereby.

(13) That Division Order No. R-1457, which authorized the triple completion of the subject well, should be superseded.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to commingle Pictured Cliffs, Chacra, Mesaverde and Greenhorn production within the wellbore of the Breech Well No. 224, located in Unit A of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in the subject well following completion of such well and submittal of pressure and productivity data.

-3-

Case No. 6444

Order No. R-5927

(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 the Director of the Division may rescind the authority to commingle production granted by this order if it appears that waste will be prevented thereby.

(5) That Division Order No. R-1457 is hereby superseded.

(6) 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

S E A L

fd/

CAULKINS OIL COMPANY

Breech 224

Unit A Sec. 26N 6W

Case NO.

Proposal

Recomplete will in Chacra Zone then Commingle Four (4) Zones in wellbore.

Pictured Cliffs

Chacra

Mesa Verde

Greenhorn

Well now producing as Conventional Dual Pictured Cliffs-Mesa Verde.

Ownership and working interests are common for all zones in this well.

Exhibit # 1

Section map showing well No. 224, Identified by red arrow, Commingled Pictured Cliffs, Chacra and Mesa Verde well one mile east of this location Identified by red circle.

Exhibit # 2

Plat showing well and all direct offset wells.

Exhibit # 3

Copy of USGS. Form 9-331 approving Plugging of Greenhorn Zone.

Exhibit # 4

Pressure and production tabulations for Pictured Cliffs, Mesa Verde and Greenhorn Zones.

Proposed production split.

Exhibit # 5

Pressure and production curves for Pictured Cliffs Zone.

Exhibit # 5 A

Pressure and production curves for Mesa Verde Zone.

Exhibit # 5 B

Pressure and production curves for Greenhorn Zone.

Exhibit # 6

Production tabulations for Chacra zone for offset well No.193
in SW $\frac{1}{4}$ Sec. 7 26N 6W,

Exhibit # 7

Copy of Electric Log Chacra Section.

Exhibit # 8

Mechanic's

CAULKINS OIL COMPANY

Breech 224

Unit A Sec. 26N 6W

Case NO.

Proposal

Recomplete well in Chacra Zone then Commingle Four (4) Zones in wellbore.

Pictured Cliffs

Chacra

Mesa Verde

Greenhorn

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Exhibit # 5 B

Pressure and production curves for Greenhorn Zone.

Exhibit # 6

Production tabulations for Chacra zone for offset well No.193
in SW $\frac{1}{4}$ Sec. 7 26N 6W.

Exhibit # 7

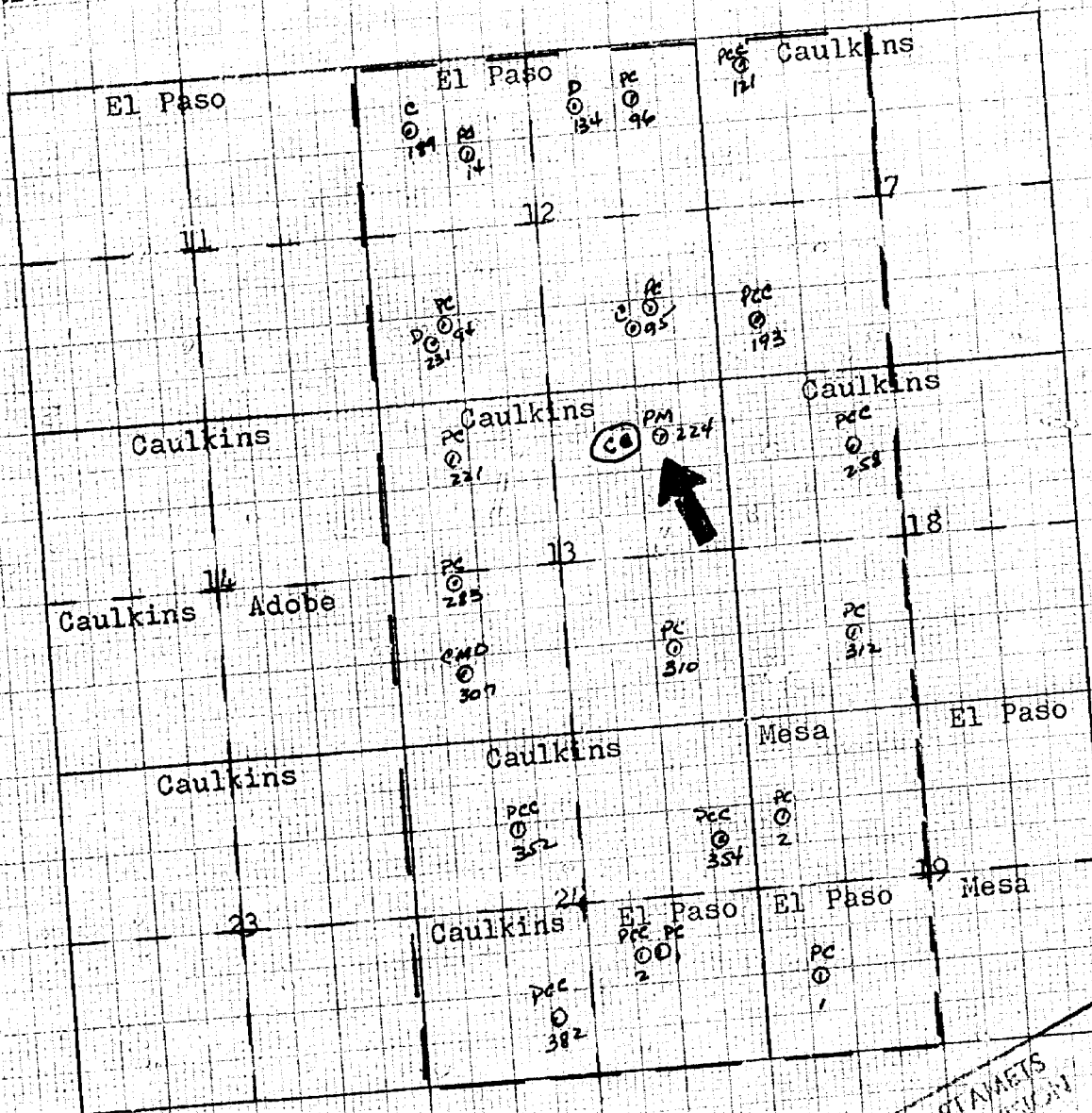
Copy of Electric Log Chacra Section.

Exhibit # 8

Mechanic's

46 1473

10 X 10 TO 12 INCH. 10 X 10 INCHES



o
d
pc
pcc
pm
cmd
pcmg

Chacra

Dakota

Dakota
Pictured Cliffs

Pictured Cliffs - Chacra

Pictured Cliffs - Chaco
Mesa Verde

Pictured Cliffs - Mesa Verde

Pictured Cliffs - Mesa Verde - Dakota

Pictured Off-
Mesa Verde - Dakota

Chacra - Mesa Verde

Proposed: Pictured Child

Proposed:

[illegible]

... ..

(continued)

DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 OIL CONSERVATION DIVISION
 CHACRA - MESA VERDE
 6444
 1-31
 2

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIP DATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NR 03733

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Breech

9. WELL NO.

224 (FMD)

10. FIELD AND POOL, OR WILDCAT

So. Blanco Pictured Cliffs
Blanco IV and Undesignated

11. SEC., T., R., N., OR BLK. AND
SURVEY OR AREA

Section 13-26N-7W

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

Caulkins Oil Company

3. ADDRESS OF OPERATOR

P. O. Box 780, Farmington, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

865' FNL and 1140' FEL of Section 13-26N-7W

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, HT, CR, etc.)

6463 KB

12. COUNTY OR PARISH

13. STATE

Rio Arriba

New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Recent tests indicated communication between the Greenhorn and Mesa Verde zones in this well. This same condition was repaired approximately 1 year ago. The Greenhorn zone has now declined to approximately 100 MCF per day.

The 1" and 1 1/2" tubing was pulled 11-4-65. The 2-3/8" string could not be pulled because it was stuck. A free point survey indicated free tubing to 5172, so the tubing is stuck just above the packer at 5184. This is the Greenhorn string of tubing.

It is proposed to temporarily complete the well as a dual Pictured Cliffs - Mesa Verde well by setting a plug in the 2-3/8" tubing at approximately 5200' and running tubing to separate the Pictured Cliffs and Mesa Verde zones

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
FARMINGTON, N. M.

CASE NO. 6444

Submitted

Received

1-31-78

RECEIVED

NOV 24 1965

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

18. I hereby certify that the foregoing is true and correct

SIGNED

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

NOV 20, 1965

Richard B. Krahl
RICHARD B. KRAHL
ACTING DISTRICT ENGINEER

TITLE

Superintendent

DATE

November 20, 1965

DATE

*See Instructions on Reverse Side

Breach 224
Unit A Section 13 26N 7W
Yearly Production and Pressures

Pictured Cliffs Zone			Mesa Verde Zone			Greenhorn Zone		
Date	Pressure	Gas Prod.	Pressure	Gas Prod.	Oil Prod.	Pressure	Gas Prod.	Oil Prod.
1959	597	35,643	588	49,150	1,193	1,012	29,771	
1960	632	74,555	524	64,495	650	887	40,137	678
1961	583	60,475	626	50,988	318	952	40,015	495
1962	558	48,227	859	42,456	143	862	41,821	353
1963	545	34,825	662	28,665	92	950	54,165	393
1964	582	14,958	864	60,447	134	535	14,107	180
1965	449	34,465	862	45,833	251	932	39,849	397
1966	422	52,675	685	76,686	462			
1967	423	51,388	774	79,189	497			
1968	412	47,362	707	80,033	557			
1969	334	46,070	645	84,438	698			
1970	331	42,668	625	87,732	620			
1971	350	43,936	643	91,987	586			
1972	342	42,675	587	89,778	544			
1973	349	55,206	459	85,465	532			
1974	297	41,636	503	83,893	262			
1975		41,135	417	62,637	316			
1976	310	38,901		68,367	339			
1977		47,289	450	75,932	273			
1978	300							
Cum. Total		854,089		1,308,271	7,907		254,865	2,496

Shut In 1966*

Paraffin probs

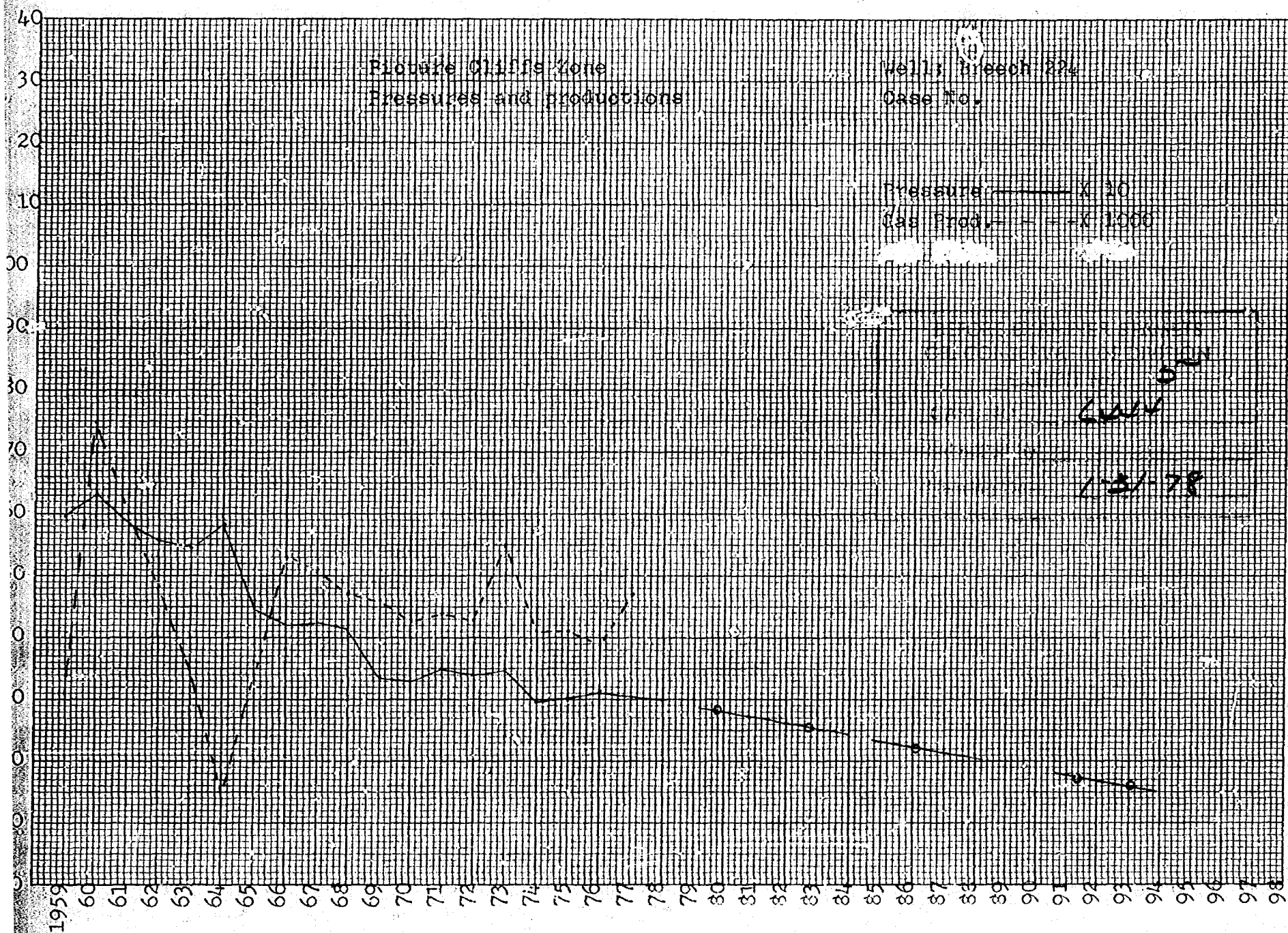
Anticipated production 500MCFPD. From 1977 production records, Pictured Cliffs produced average 130MCFPD, Mesa Verde produced 208 MCFPD, Balance 162 MCFPD; Dec. 1978 Chacra production records for Well 193 in SW $\frac{1}{4}$ Sec. 7 26N 6W indicated daily Aug. @ 80 MCFPD - Balance for Greenhorn 82 MCFPD.

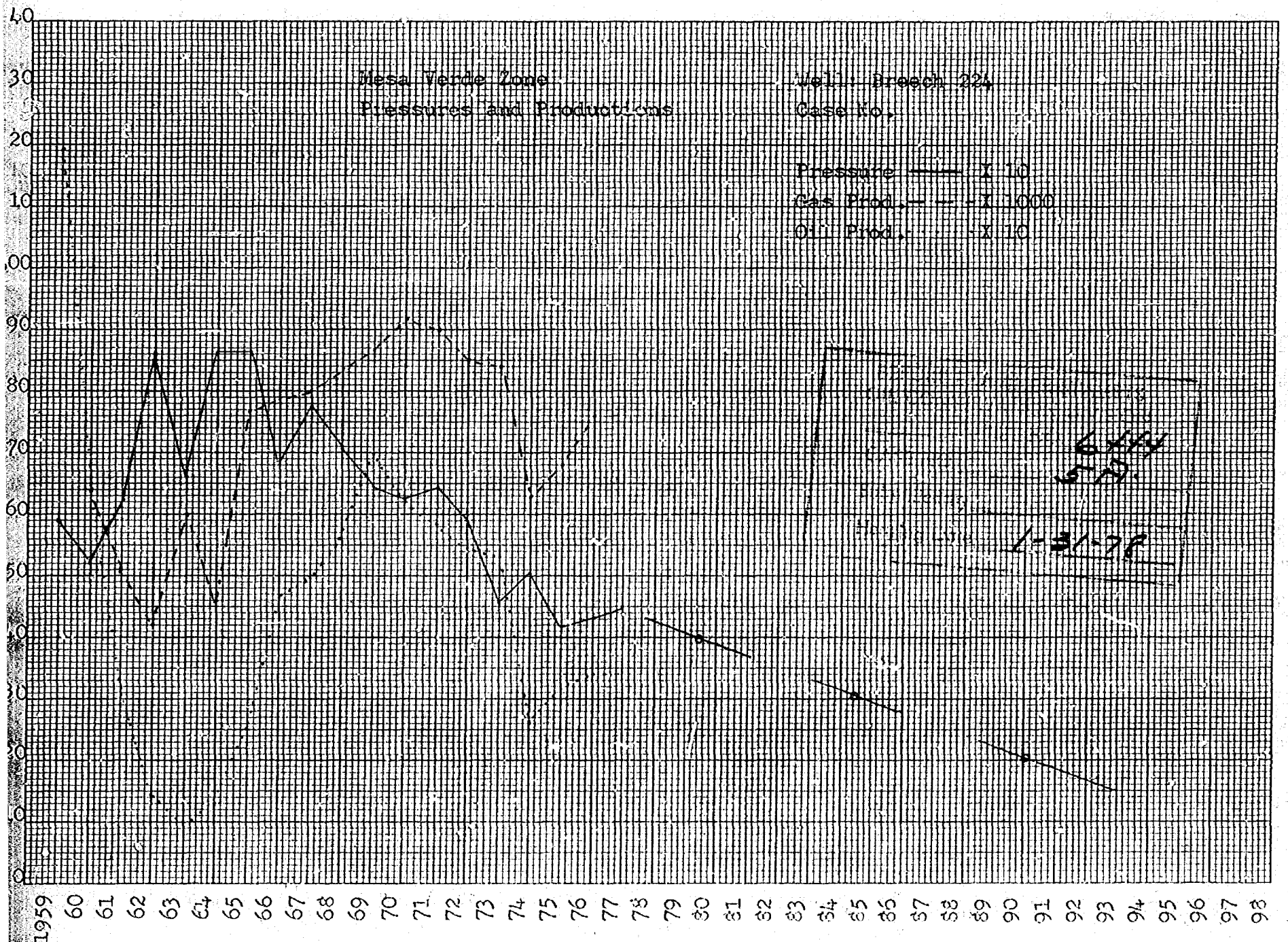
Proposed;

Pictured Cliffs 26% of all gas production.
Chacra 17% of all gas production.
Mesa Verde 40% of all gas production and 53% of oil production.
Greenhorn 17% of all gas production and 47% of oil production.

* Copy of approved USGS form 9-331 included with exhibits.

BEFORE THE NEBRASKA STATE DEPT. OF REVENUE
CITY OF OMAHA, NEBRASKA
CASE NO. **6444**
Submitted by **4**
Hearing Date **1-31-78**

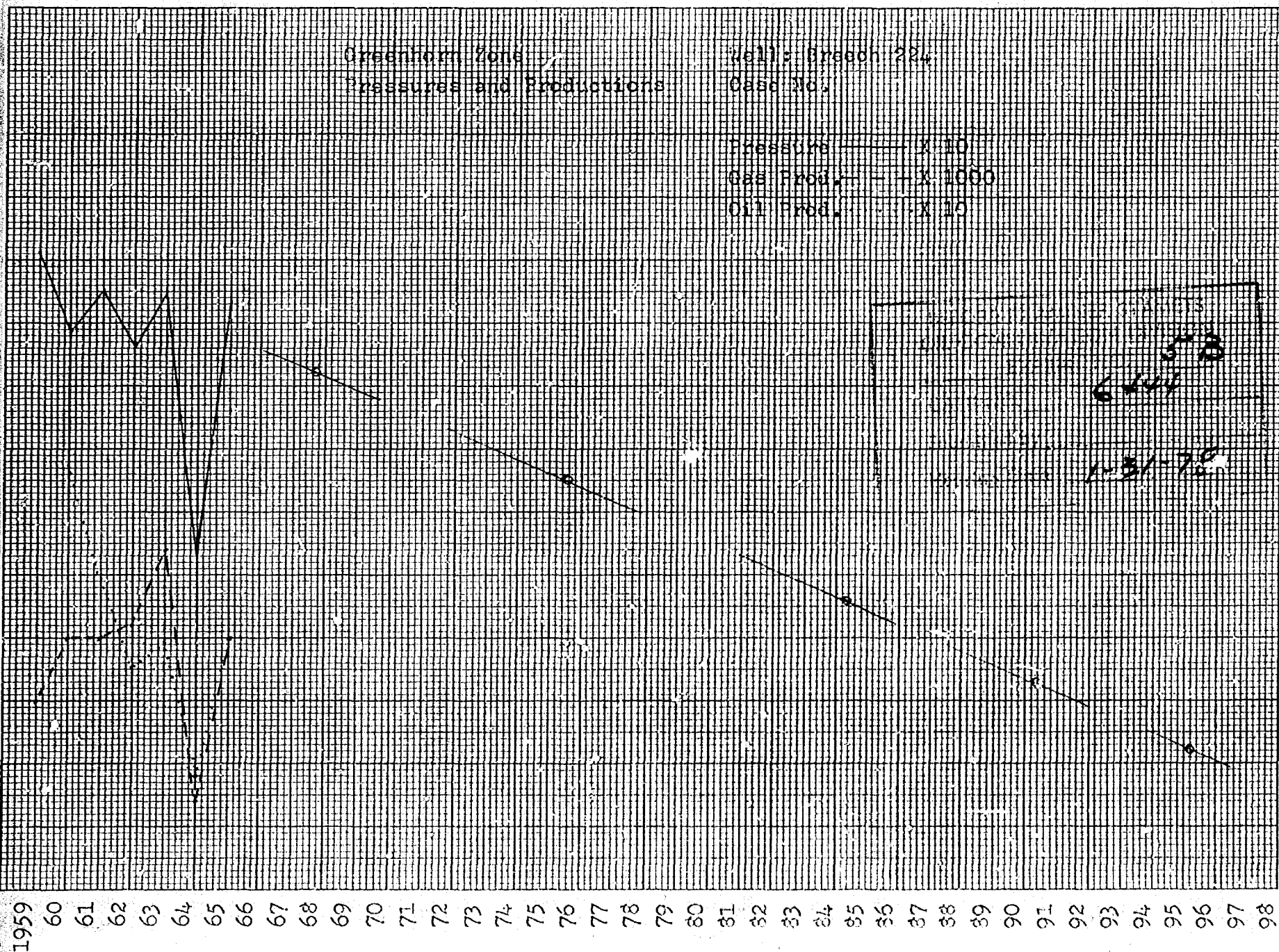




Greenhorn Zone
Pressures and Productions

Well: Dregon 224
Case No.

Pressure ——— X 10
Gas Prod. ——— X 1000
Oil Prod. ——— X 10



CAULKINS OIL COMPANY

Breach B 193

Case No.

Exhibit # 6

Monthly Chacra Production 1978.

January	6869
February	4171
March	4119
April	3582
May	3283
June	2930
July	2539
August	2370
September	2303
November	2377
December	2479
Cum. Total	39,152

Average
August Daily for year. 107 MCFPD.

Average
August Daily for last six months. 78 MCFPD.

BEFORE THE UNITED STATES
OIL COMMISSION
Case No. 6444
Submitted by
Hearing Date 1-31-78

RUN 2

3600

3700

38

TEMPERATURE
INCREASES

Exhibit # 7

Breech 224

Unit A Sec. 13 26 6

Electric Log for Chacka Zone

6414

1-31-78

CAULKINS OIL COMPANY

Breech 224

Unit A Sec. 26N 6W

Case No.

6444 8

1-31-78

Exhibit # 8

Well History

Order No. R-1457 approved Triple Completion Pictured Cliffs, Mesa Verde and Greenhorn in such a manner as to permit the production of gas from the Pictured Cliffs Zone through 1 $\frac{1}{4}$ " tubing, the production of gas from the Greenhorn Zone through 2 $\frac{3}{8}$ " tubing from below the lower Packer to 5153', thence through 1" NU tubing to the surface, and the production of gas from the Mesa Verde Zone through the annulus between said 1" tubing string and 2 $\frac{3}{8}$ " tubing to surface.

Pictured Cliffs perforations 2716 to 2754 2 per. ft.

Mesa Verde Perforations 4966 to 5146 2 per. ft.

Greenhorn Perforations 6900 to 6940 2 per ft.

Difficulty producing well in above manner was experienced due too paraffin buildup in both 1" tubing and annular area between 1" and 2 $\frac{3}{8}$ ". Difficulty was also experienced Keeping seal between Greenhorn and Mesa Verde Zones, therefore decision to temporarily abandon Greenhorn Zone in 1966.

Mechanic's

In view of Chacra production in offset wells and possible extra production from Greenhorn Zone, We would propose to recompleate Well in following manner:

Pull 1 $\frac{1}{4}$ " tubing now set at 2709' for Pictured Cliffs Zone and salvage same.

Pull 2 $\frac{3}{8}$ " tubing now latched into packer at 4954'.

Run milling tool and remove packer at 4954'.

Remove 2 $\frac{3}{8}$ " tubing and Seals now set in packer @ 5184'.

Perforate 7" Csg. approx. 3590 to 3615 and 3685 to 3692 (Chacra Zone), then set retrievable bridge plug at approx. 3720' and 7" retrievable packer on 2 $\frac{7}{8}$ " tubing at approx. 3500' and then Fracture Chacra Zone with 50,000# sand.

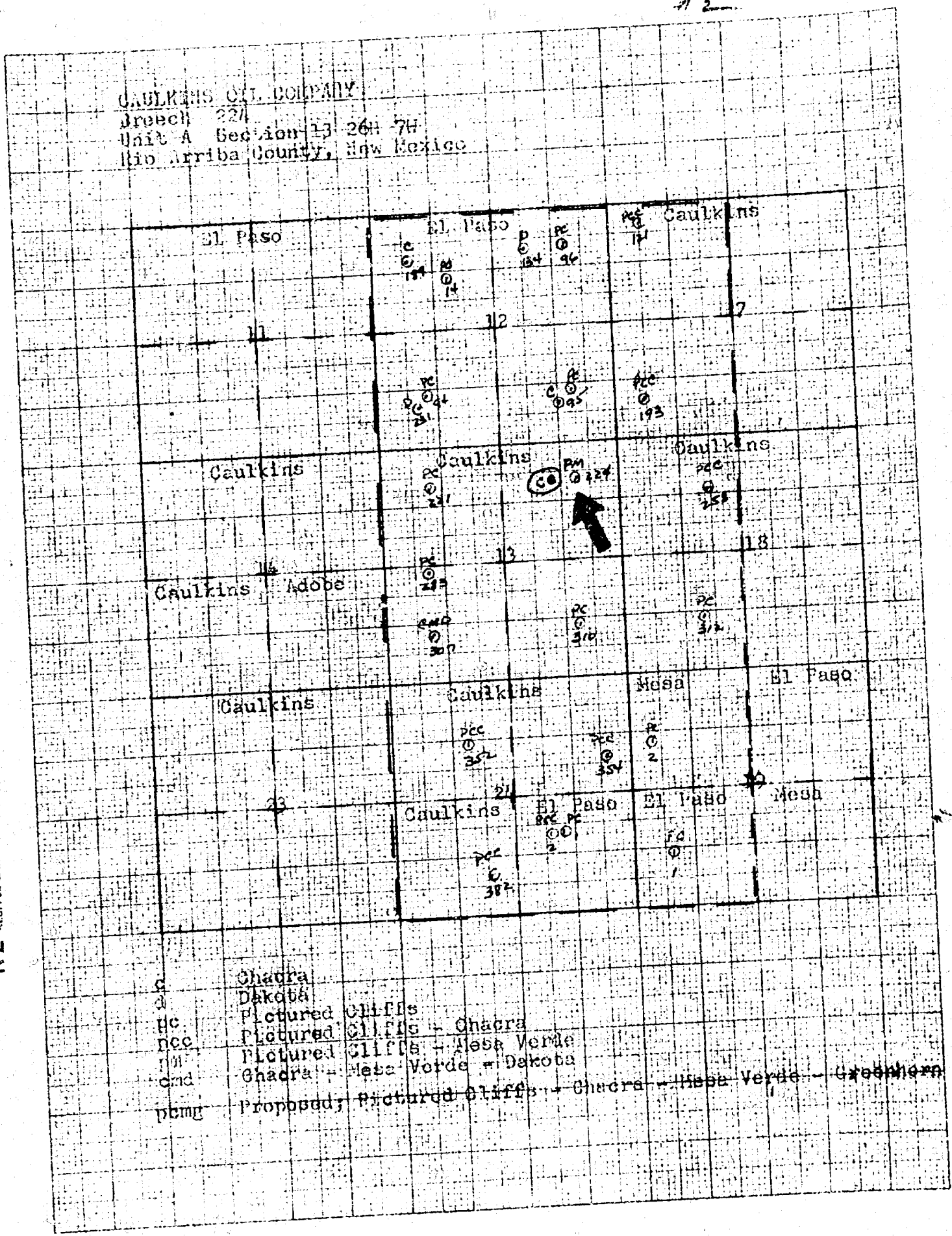
After Fracture treatment pull 2 $\frac{7}{8}$ " tubing, Packer and bridge plug then run 2 $\frac{3}{8}$ " EUE tubing to approx. 6600' for Commingled Pictured Cliffs-Chacra-Mesa Verde and Greenhorn Production.

CH 711
#1 2

CAULKINS OIL COMPANY
Breach 224
Unit A Section 13 264 74
Rio Arriba County, New Mexico

46 1473

10 X 10 TO 1/2 INCH X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
K-E



Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIP DATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 0373

6. IF INDIAN, NAME OF TRIBE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Breech

9. WELL NO.

224 (PMD)

10. FIELD AND POOL, OR WELDCAT

So. Blanco Pictured Cliffs
Blanco III and Undesignated

11. SEC. T., R., M., OR S.E. AND SURVEY OR AREA

Section 13-26N-7W

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, ST, OR, etc.)

6463 KB

12. COUNTY OR PARISH

Rio Arriba

13. STATE

New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

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RECEIVED

NOV 24 1965

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

18. I hereby certify that the foregoing is true and correct

SIGNED

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

NOV 24 1965
Richard B. Krahl
ACTING DISTRICT ENGINEER

TITLE

Superintendent

DATE

November 20, 1965

*See Instructions on Reverse Side

6444
4

Breach 224
Unit A Section 13 26N 7W
Yearly Production and Pressures

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1965	449	34,465	862	45,833	251	932	39,849	397
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Cum. Total 854,089			1,308,271			254,865		
			7,907			2,496		

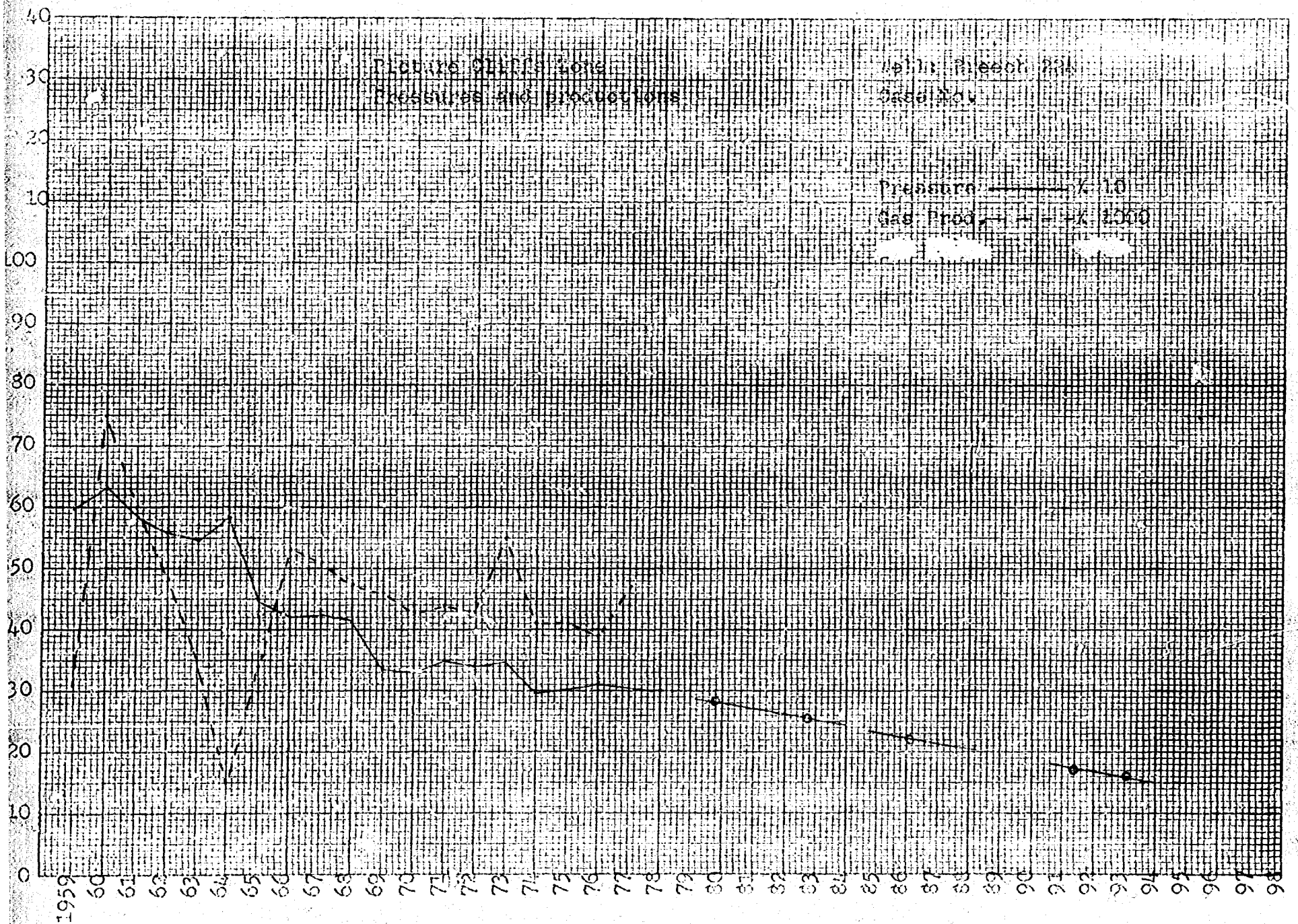
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Proposed;

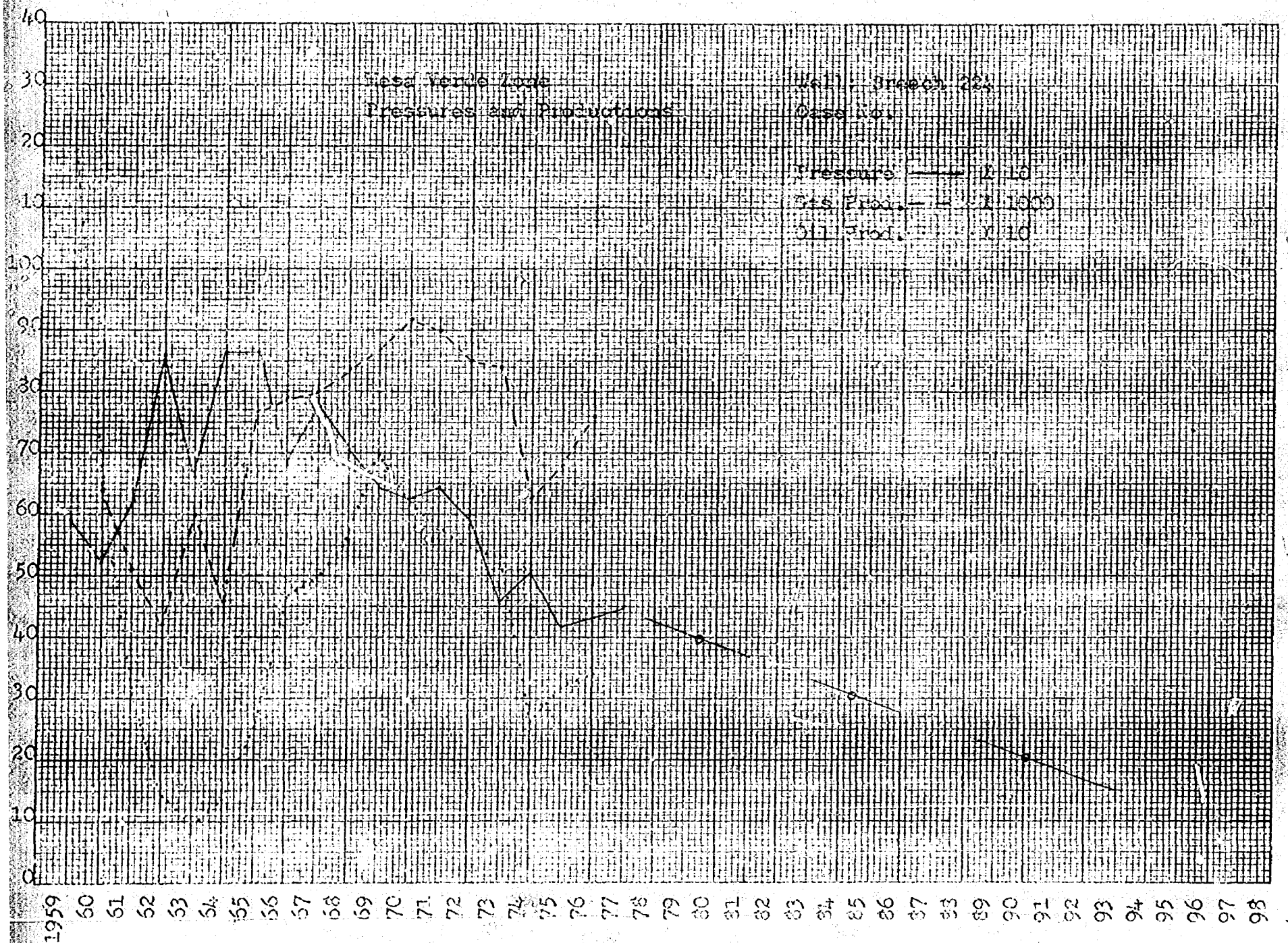
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Mesa Verde 40% of all gas production and 53% of oil production.
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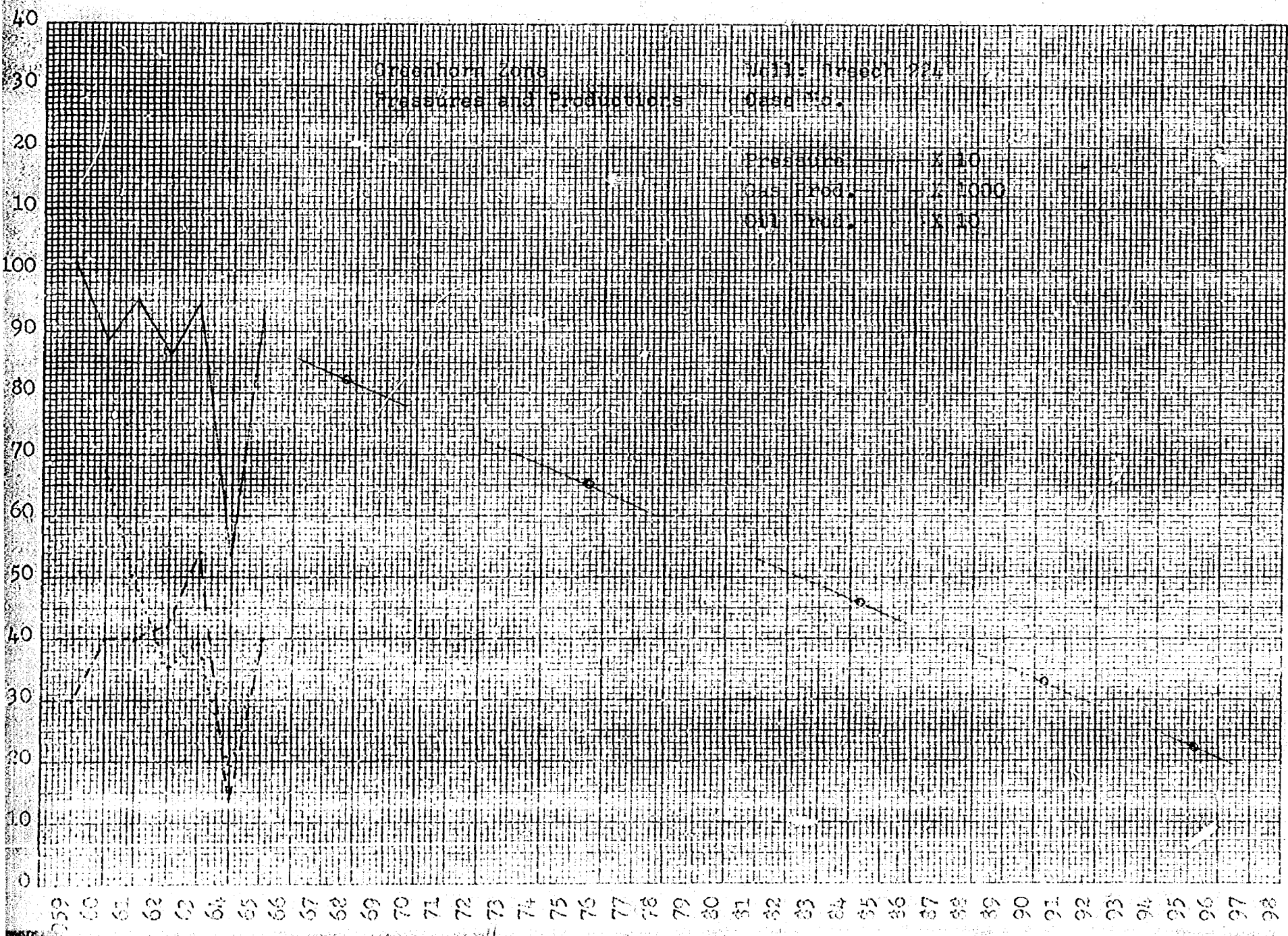
45



11-5-A



H.C. 5



CAULKINS OIL COMPANY

Breech B 193

Case No.

64-441
ex 10.

Exhibit # 6

Monthly Chacra Production 1978.

January	6869
February	4171
March	4119
April	3582
May	3283
June	2930
July	2539
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~~Average~~
August Daily for year. 107 MCFPD.

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6400
" 7

RUN 2

3600

3650

3700

38

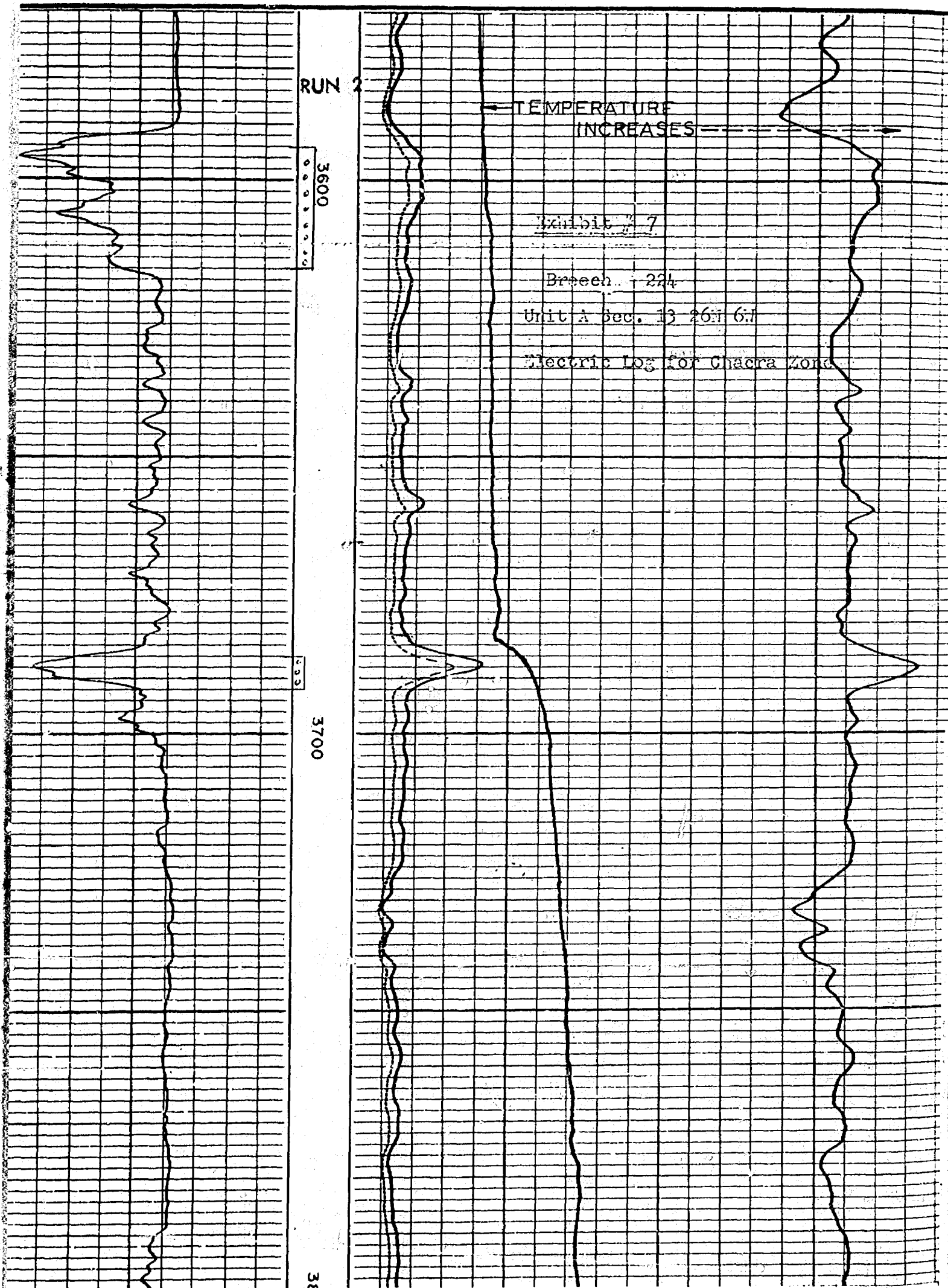
TEMPERATURE
INCREASES

Exhibit 7

Breen 224

Unit A Sec. 13 26 6.7

Electric Log for Chacra Zone



CAULKINS OIL COMPANY

Breech 224

Unit A Sec. 26N 6W

Case No. 64414
" 8

Exhibit # 8

Well History

Order No. R-1457 approved Triple Completion Pictured Cliffs, Mesa Verde and Greenhorn in such a manner as to permit the production of gas from the Pictured Cliffs Zone through 1 1/4" tubing, the production of gas from the Greenhorn Zone through 2 3/8" tubing from below the lower Packer to 5153', thence through 1" NUI tubing to the surface, and the production of gas from the Mesa Verde Zone through the annulus between said 1" tubing string and 2 3/8" tubing to surface.

Pictured Cliffs perforations 2716 to 2754 2 per. ft.

Mesa Verde Perforations 4966 to 5146 2 per. ft.

Greenhorn Perforations 6900 to 6940 2 per ft.

Difficulty producing well in above manner was experienced due too paraffin buildup in both 1" tubing and annular area between 1" and 2 3/8". Difficulty was also experienced Keeping seal between Greenhorn and Mesa Verde Zones, therefore decision to temporarily abandon Greenhorn Zone in 1966.

Mechanic's

In view of Chacra production in offset wells and possible extra production from Greenhorn Zone, We would propose to recompleate Well in following manner:

Pull 1 1/4" tubing now set at 2709' for Pictured Cliffs Zone and salvage same.

Pull 2 3/8" tubing now latched into packer at 4954'.

Run milling tool and remove packer at 4954'.

Remove 2 3/8" tubing and Seals now set in packer @ 5184'.

Perforate 7" Csg. approx. 3590 to 3615 and 3685 to 3692 (Chacra Zone), then set retrievable bridge plug at approx. 3720' and 7" retrievable packer on 2 7/8" tubing at approx. 3500' and then Fracture Chacra Zone with 50,000# sand.

After Fracture treatment pull 2 7/8" tubing, Packer and bridge plug then run 2 3/8" EUE tubing to approx. 6600' for Commingled Pictured Cliffs-Chacra-Mesa Verde and Greenhorn Production.

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 72 days in advance of hearing date.

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 HNC 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 Matlix 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 B 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
RIO ARriba COUNTY, NEW MEXICO

A P P L I C A T I O N

Case 6444

Comes now Caulkins Oil Company and applies to the Oil Conservation Division, New Mexico Energy and Minerals Department, for approval of downhole commingling in the well bore in its *Breco* Well No. 224, located in Section 14, Township 26 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Division:

1. The subject well is now completed as a Pictured Cliffs-Mesaverde dual completion. The Greenhorn formation is temporarily shut in. Applicant proposes to complete the well in the Chacra, open up the Greenhorn, and commingle the production from all four zones: Pictured Cliffs, Mesaverde, *Greenhorn* Chacra and ~~Chacra~~ formations.

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 downhold commingling as requested.

Respectfully submitted,

Caulkins Oil Company

By James Kellahin
Kellahin & Kellahin
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
RIO ARriba COUNTY, NEW MEXICO

JAN - 2 1979
OIL CONSERVATION DIVISION
SANTA FE

A P P L I C A T I O N

Case 6444

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1. The subject well is now completed as a Pictured Cliffs-Mesaverde dual completion. The Greenhorn formation is temporarily shut in. Applicant proposes to complete the well in the Chacra, open up the Greenhorn, and commingle the production from all four zones: Pictured Cliffs, Mesaverde, Chacra and Chacra formations.

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Division enter its order granting approval of downhold commingling as requested.

Respectfully submitted,

Caulkins Oil Company

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

ATTORNEYS FOR APPLICANT

BEFORE THE
NEW MEXICO ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

JAN - 7 1979

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

OIL CONSERVATION DIVISION
Santa Fe

A P P L I C A T I O N

Case 6444

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1. The subject well is now completed as a Pictured Cliffs-Mesaverde dual completion. The Greenhorn formation is temporarily shut in. Applicant proposes to complete the well in the Chacra, open up the Greenhorn, and commingle the production from all four zones: Pictured Cliffs, Mesaverde, Chacra and Chacra formations.

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 downhold com-
mencing as requested.

Respectfully submitted,

Caulkins Oil Company

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

ATTORNEYS FOR APPLICANT

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. 6444

Order No. R- 5927

APPLICATION OF CAULKINS OIL
COMPANY FOR 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 _____ 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, is the owner and operator of the Breech Well No. 224 located in Unit A of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.
- (3) That the applicant seeks authority to commingle Pictured Cliffs, Mesaverde, Chacra, and Greenhorn production within the wellbore of the above-described well.

(4) That from the Pictured Cliffs zone, the subject well is capable of low marginal production only.

(6) That from the Mesaverde zone, the subject well is capable of low marginal production only.

(5) That from the Chacra zone, the subject well is *expected to be* capable of low marginal production only.

(7) That from the Greenhorn zone, the subject well is capable of low marginal production only.

(8) 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.

(9) 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.

(10) 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 *of the pressure and productivity encountered upon completion and further notify* office of the Division any time the subject well is shut-in for 7 consecutive days.

(11) That in order to allocate the commingled production to each of the commingled zones in the subject well, _____ percent of the commingled _____ production should be allocated to the _____ Pictured Cliffs _____ zone; _____ percent of the commingled _____ production should be allocated to the Mesaverde zone; _____ percent of the commingled _____ production should be allocated to the Chacra zone, and _____ percent of the commingled _____ production should be allocated to the Greenhorn zone.

(ALTERNATE)

said district office

(12) That the Director of the Division should be authorized to rescind the commingling authority granted by this order whenever it appears that waste would be prevented thereby.

(13) That Division Order No R-1457 should be superseded, which authorized the triple completion of the subject well.

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

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to commingle Pictured Cliffs, Mesaverde, Chacra, and Greenhorn production within the wellbore of the Breech Well No. 224, located in Unit A of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells, following completion of such well and submit of pressure and productivity data.

(2) That _____ percent of the commingled production shall be allocated to the Pictured Cliffs zone; _____ percent of the commingled production shall be allocated to the Mesaverde zone; _____ percent of the commingled production shall be allocated to the Chacra zone, and _____ percent of the commingled production shall be allocated to the Greenhorn 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 the Director of the Division may rescind the authority to commingle production granted by this order if it appears that waste will be prevented thereby.

(5) That Division Order No R-1457 is hereby superseded.

(6) 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.