

CASE 5859: CAULKINS OIL COMPANY FOR
DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY,
NEW MEXICO

CASE NO.

5859

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 9, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Caulkins Oil Company for) CASE
a dual completion and downhole) 5859
commingling, Rio Arriba County,)
New Mexico.)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Jason W. Kellahin, Esq.
KELLAHIN & FOX
Attorneys at Law
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I N D E X

Page

CHARLES VERQUER

Direct Examination by Mr. Kellahin	3
Cross Examination by Mr. Nutter	13

EXHIBIT INDEX

Offered Admitted

Caulkins Exhibit One, Plat	5	13
Caulkins Exhibit Two, Shut-in Pressures	5	13
Caulkins Exhibit Three, Decline Curve	6	13
Caulkins Exhibit Four, Decline Curve	6	13
Caulkins Exhibit Five, Tabulation	7	13
Caulkins Exhibit Six, Production Curve	8	13
Caulkins Exhibit Seven, Tabulation	8	13
Caulkins Exhibit Eight, Production Curve	8	13
Caulkins Exhibit Nine, Schematic	8	13
Caulkins Exhibit Ten, Proposed Mechanics	9	13
Caulkins Exhibit Eleven, Electric Log	9	13

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1 MR. NUTTER: We will call Case Number 5859.

2 MS. TESCHENDORF: Case 5859, application of Caulkins
3 Oil Company for a dual completion and downhole commingling,
4 Rio Arriba County, New Mexico.

5 MR. KELLAHIN: If the Examiner please, Jason Kellahin,
6 Kellahin and Fox, Santa Fe, appearing for the applicant and we
7 have one witness to be sworn.

8 (THEREUPON, the witness was duly sworn.)

9
10 CHARLES VERQUER

11 called as a witness, having been first duly sworn, was examined
12 and testified as follows:

13
14 DIRECT EXAMINATION

15 BY MR. KELLAHIN:

16 Q Would you state your name, please?

17 A My name is Charles Verquer.

18 Q Where are you located, Mr. Verquer?

19 A I live in Farmington. I operate Caulkins' property.

20 Q What is your position with Caulkins Oil Company?

21 A I'm superintendent.

22 Q How long have you been superintendent?

23 A Nine years.

24 Q And prior to that where were you employed?

25 A I've been employed by Caulkins Oil Company for twenty-

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1 three years.

2 Q During the twenty-three years that you worked for
3 Caulkins Oil Company, where did you work?

4 A In this same field.

5 Q Are you familiar with the development of the pool
6 involved in this application?

7 A Yes, I was there when the wells were drilled and
8 prior to it.

9 Q And prior to that have you had anything to do with
10 the drilling of any of these wells?

11 A Yes, as superintendent I supervised drilling,
12 completions and production operations.

13 Q And the production information is all under your
14 supervision directly, is that correct?

15 A Yes, sir.

16 Q And the operation of the wells?

17 A Yes, sir.

18 MR. KELLAHIN: Do you consider the witness qualified
19 for purposes of this application?

20 MR. NUTTER: Yes, I do.

21 Q (Mr. Kellahin continuing.) Mr. Verquer, are you
22 familiar with the application of Caulkins Oil Company in
23 Case 5859?

24 A Yes.

25 Q What is the applicant proposing in this case?

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1 A. Our plan is to commingle the Mesaverde and the Dakota
2 and therefore being able to produce the Mesaverde which is now
3 shut in and then later if this is approved commingling the
4 Chacra formation along with the Mesaverde-Dakota.

5 Q. Now, referring to what has been marked as the
6 Applicant's Exhibit Number one, would you identify that exhibit?

7 A. That is a plat of the acreage and all of the offset
8 wells with the well in question identified by a red arrow.

9 Q. Now, it shows the designation MD, is that Mesaverde-
10 Dakota?

11 A. Yes, sir.

12 Q. Was it a dual completion?

13 A. It was a dual completion.

14 Q. It is not at the present time?

15 A. The Mesaverde zone is shut in.

16 Q. And the other wells on that unit are Pictured Cliffs
17 wells?

18 A. Yes, sir.

19 Q. Referring to what has been marked as Exhibit Number
20 Two, would you identify that exhibit?

21 A. Exhibit Number Two shows the seven day shut-in
22 pressures from the time the wells were drilled, the initial
23 pressures, to the year 1975 when the Mesaverde zone was shut
24 in.

25 Q. In 1974 was the last pressure then you had on the

1 Mesaverde?

2 A. On the Mesaverde, yes.

3 Q. And 1975 on the Dakota?

4 A. On the Dakota.

5 Q. Now, referring to what has been marked as Exhibit

6 Number Three would you identify that exhibit?

7 A. It just shows a pressure decline curve for the years
8 as listed on the tabulation with an extrapolation down to a
9 pressure of a hundred and fifty pounds. I just extended that
10 curve down to the hundred and fifty pound mark. Hopefully it
11 will last that long.

12 Q. In your opinion does this reflect that there are
13 unproduced reserves in the Mesaverde?

14 A. Yes, there are.

15 Q. And at the present time you are not able to produce
16 those?

17 A. That's right. The well is so weak that it just does
18 not produce under its own power where we consider if we
19 commingle them it will just help the two of them.

20 Q. Sir, referring to what has been marked as Exhibit
21 Number Four would you identify that exhibit?

22 A. This is the Dakota pressure decline curve with it
23 extrapolated down to a pressure of a hundred and fifty pounds.

24 Q. That shows a slight increase in production after
25 1973, was there any reason for that?

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1 A. We have noticed over all of our Dakotas, the decline
2 curve is pretty well straight across but in a dual completion
3 well, especially if the tubing is loaded with fluid when the
4 pressure is taken on it, you will have a decline and I'm
5 sure that was the reason for that.

6 Q. That also indicates that there were unproduced
7 reserves in the Dakota?

8 A. Right.

9 Q. Referring to what has been marked as Exhibit Number
10 Five would you identify that exhibit?

11 A. This is the annual gas and oil production tabulations
12 for the initial production through the shut-in period when
13 it was shut in in 1975.

14 Q. That was the Mesaverde only?

15 A. The Mesaverde only.

16 Q. It doesn't make a large volume of fluid then, does
17 it?

18 A. No, I would like to note and, of course, it will
19 show up on the graph that 1971, '72 and '73 are right in the
20 middle of this whole situation at higher production and whether
21 it was paraffin or what, we are not really sure, but it does
22 look like the well may be capable of making more gas than
23 what the average showed over the total period because those
24 three years were much better gas production years than years
25 previously or afterward.

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1 Q Now, Exhibit Number Six, is that a production curve
2 reflecting the same information?

3 A Yes.

4 Q That's just a tabulation?

5 A Based on the tabulation that is the production
6 curve.

7 Q Exhibit Number Seven?

8 A That is the Dakota annual gas production from initial
9 through January 1, 1976.

10 Q And Exhibit Number Eight again is the tabulation?

11 A It is from the tabulation, yes, sir.

12 Q And you do have a little more oil production from
13 that well, do you not?

14 A Yes, it produces a little oil right along but it's
15 way, way down but it's still on a very sharp decline.

16 Q At this time is the oil of significant amounts?

17 A No, the production won't be over ten barrels a
18 month for the Dakota.

19 Q Now, referring to Exhibit Number Nine would you
20 identify that exhibit?

21 A Exhibit Number Nine is the proposed dual completion
22 after commingling the Mesaverde zone and the Dakota zones after
23 setting a packer and perforating and opening the Chacra zone
24 for a dual Chacra-Mesaverde-Dakota commingled zone. I haven't
25 really figured out how to designate that thing.

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1 Q Well, basically what you are proposing to do is
2 to commingle the Mesaverde and the Dakota?

3 A Yes, sir.

4 Q And then dual complete with the Chacra?

5 A Right.

6 Q In your opinion are there reserves in the Chacra
7 which should be produced?

8 A Yes, sir, we have Chacra wells in the area. The
9 closest well is a well that was drilled last year so we don't
10 really have a good decline or records on it but the well should
11 be capable of producing some three million MCF a month, which
12 makes it economical for a Chacra, especially so if we can use
13 the same wellbore.

14 Q Now, referring to Exhibit Number Ten, would you
15 identify that exhibit, please?

16 A Number Ten is my proposed mechanics of what I would
17 do to dual complete the well, commingle the two zones and dual
18 complete this, pull the tubing and perforate and frac the
19 Chacra zone with approximately fifty thousand pounds of sand
20 and run tubing to keep them separated with a packer.

21 Q Now, referring to what has been marked as Exhibit
22 Number Eleven, would you identify that exhibit?

23 A It's a portion of an electric log, induction log, run
24 on the well when it was drilled, showing the perforated zones
25 in the Mesaverde and the Dakota and the proposed Chacra perfora-

1 tions. I propose to do a limited entry perforating job on
2 those little stringers in that Chacra zone which will only
3 involve seven perforations.

4 Q And the Mesaverde and the Dakota are already
5 perforated?

6 A Yes, sir, they have already been perforated.

7 Q Will it require any work on them?

8 A No, sir.

9 Q Will you give any treatment to the Mesaverde?

10 A I didn't plan on it at this time, no, sir.

11 Q Now, in your opinion will the commingling of the
12 Mesaverde and Dakota cause any waste?

13 A Now, sir, I believe that if the Commission approves
14 this that they shouldn't be shut in too long a time, just left
15 shut in, but the Mesaverde being marginal and actually the
16 Dakota being nearly marginal and the way the market is, there
17 is not much chance that it would ever be shut in over seven
18 days for deliverability tests.

19 Q With the pressures you have would there be any
20 migration of gas from one zone to another or fluids?

21 A I don't anticipate any although the Dakota pressure
22 is still a little bit higher than the Mesaverde but they are
23 getting so near alike that where they are produced I believe
24 that there would be no migration.

25 Q So long as it is being produced there will be no

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1 migration?

2 A. No, no migration.

3 Q And you will be willing to have a limited shut-in
4 period of time placed on the order?

5 A. Yes, I think it should be.

6 Q In your opinion will the commingling of production
7 from these two zones prolong the life of the well over the two
8 zones?

9 A. I think so because you will be using -- you will have
10 a lot more gas to carry what fluid that well is making,
11 therefore, the Mesaverde zone should stay clean which will
12 just prolong the life of the well.

13 Q You can produce the combined zones longer than you
14 could produce either zone separately?

15 A. Right.

16 Q Now, under the commingling how would you propose to
17 account for the gas production from the two zones?

18 A. From past records, the past and the last full year
19 that the Mesaverde and the Dakota were both producing, I
20 came up with a figure of eighty-five and a half percent of
21 the gas from the Dakota zone and fourteen and a half percent
22 of the gas from the Mesaverde zone. Now, if that is run back
23 to the initial production it also figures that, so I propose
24 that for the remaining reserves. It would be a fair way to
25 divide the gas.

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1 Q Now, how about the oil?

2 A And the oil using the same factors, seventy-seven
3 percent to the Dakota zone and twenty-three percent to Mesaverde
4 zone. The Mesaverde makes a little condensate that has a
5 paraffin base and I assume that we will get a little bit more
6 of it out of the well now if this is done.

7 Q Was this figure also based on the last full year's
8 production?

9 A Yes, sir, it was.

10 Q Now, in connection with the dual completion will that
11 enable you to produce gas that would not otherwise be produced?

12 A Yes, sir.

13 Q And in your opinion will the completion procedure
14 which you have proposed fully protect the Chacra and the
15 combined Mesaverde and Dakota zones?

16 A Yes, it will.

17 Q There will be no packer leakage to cause any problem?

18 A No, we will run regular annual packer leakage tests
19 prescribed by the Commission.

20 Q Were Exhibits One through Eleven prepared by you
21 or under your supervision?

22 A They were prepared by me.

23 MR. KELLAHIN: At this time we would offer into
24 evidence Exhibits One through Eleven.

25 MR. NUTTER: Caulkins' Exhibits One through Eleven

1 will be admitted into evidence.

2 (THEREUPON, Caulkins' Exhibits One through
3 Eleven were admitted into evidence.)

4 MR. KELLAHIN: That's all that we have, Mr. Nutter.

5

6 CROSS EXAMINATION

7 BY MR. NUTTER:

8 Q Mr. Verquer, you've got a differential there of
9 almost three hundred pounds at the surface between the
10 Mesaverde and the Dakota, aren't you concerned that the Dakota
11 pressure is going to be such in the wellbore as to preclude
12 any Mesaverde gas from coming into the wellbore?

13 A Producing at the line pressure, Mr. Examiner, with
14 a line pressure of two hundred pounds, I don't think that that
15 would happen. That's my thought. If we had high line
16 pressures I would agree.

17 Q What is your line pressure in this area?

18 A A hundred and fifty pounds is the normal line
19 pressure.

20 Q So you should be able to keep the Dakota pressure
21 drawn down pretty well then?

22 A Yes, sir, that is what it is producing at right now.

23 Q What is your flowing tubing pressure on your Dakota?

24 A It is just nearly the same at a hundred and fifty
25 pounds.

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1 Q It shows the line pressure on it?

2 A Yes, it would just be two or three pounds difference
 3 is all there is in the tubing pressure and the line pressure.

4 Q Do you produce this Dakota well twenty-four hours
 5 a day, thirty days a month?

6 A We haven't been in the past, well, right here
 7 recently we have not been. We have had an intermitter on it,
 8 stopcocking it, but we anticipate when we flow this with a
 9 little more gas pressure on there that it should flow twenty-
 10 four hours and that is what we had proposed was to clean it
 11 and let it flow twenty-four hours.

12 Q Right now you do use an intermitter on account of
 13 liquid problems?

14 A Yes, sir.

15 Q It keeps the wellbore cleaner by using an intermitter?

16 A Yes, sir.

17 Q Now, I notice on your map here to the south of
 18 Section 13, the number of wells that bear the legend PCC,
 19 would those be Pictured Cliffs-Chacra duals?

20 A Yes, sir, I'm sorry, I made a misstatement awhile
 21 ago but those are Pictured Cliffs-Chacra duals.

22 Q So this well proposed to be completed in the Chacra
 23 is a direct offset to existing Chacra production?

24 A Yes, sir.

25 MR. NUTTER: Are there any further questions of

1 Mr. Verquer?

2 MR. KELLAHIN: That's all.

3 MR. NUTTER: He may be excused.

4 (THEREUPON, the witness was excused.)

5 MR. NUTTER: Do you have anything further, Mr.

6 Kellahin?

7 MR. KELLAHIN: That's all, Mr. Nutter, thank you.

8 MR. NUTTER: Does anyone have anything they wish

9 to offer in Case Number 5859?

10 We will take the case under advisement and the hearing
11 is adjourned.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish
Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a true and correct report of the proceedings in
the hearing held on March 9, 1977, at 5857.
heard by me on 3/9, 1977.
[Signature] Examiner
New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501



DIRECTOR
JOE D. RAMEY

LAND COMMISSIONER
PHIL R. LUCERO
March 30, 1977

STATE GEOLOGIST
EMERY C. ARNOLD

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

Re: CASE NO. 5859
ORDER NO. R-5403

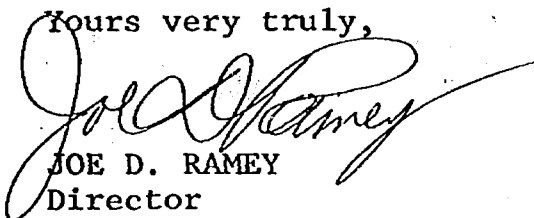
Applicant:

Caulkins Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission 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 _____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 5859
Order No. R-5403

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

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 9, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 29th day of March, 1977, the Commission, a quorum being present, 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 Commission 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 D Well No. 307, located in Unit M of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle Basin-Dakota and Blanco-Mesaverde production within the wellbore of the above-described well, and to dually complete the commingled formations and the Chacra formation in said well, producing the commingled Mesaverde-Dakota production through one string of 1 1/4-inch integral joint tubing and the Chacra production through a parallel string of 1-inch non-upset tubing, with separation of the commingled Mesaverde-Dakota production from the Chacra production achieved by means of a packer set at approximately 3300 feet.

-2-

Case No. 5859
Order No. R-5403

(4) That from the Basin-Dakota zone, the subject well is capable of low marginal production only.

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

(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.

(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.

(8) That to afford the Commission 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 Commission any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 85 percent of the commingled gas production and 75 percent of the oil production should be allocated to the Basin-Dakota zone, and 15 percent of the commingled gas production and 25 percent of the oil production to the Blanco-Mesaverde zone.

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

(11) That approval of the subject application will prevent waste and will not impair correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Caulkins Oil Company, is hereby authorized to commingle Basin-Dakota and Blanco-Mesaverde production within the wellbore of the Breech D Well No. 307, located in Unit M of Section 13, Township 26 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, and to dually complete the commingled formations and the Chacra formation in said well in such a manner as to produce the commingled Mesaverde-Dakota production through a string of 1 1/4-inch integral joint tubing and the Chacra production through a parallel string of 1-inch non-upset tubing, with separation of the commingled Mesaverde-Dakota production and Chacra production achieved by means of a packer set at approximately 3300 feet.

-3-

Case No. 5859
Order No. R-5403

PROVIDED HOWEVER, that the applicant shall complete, operate, and produce the aforesaid well in accordance with the provisions of Rule 112-A of the Commission 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.

(2) That 85 percent of the commingled gas production and 75 percent of the commingled oil production shall be allocated to the Basin-Dakota zone and 15 percent of the commingled gas production and 25 percent of the commingled oil production shall be allocated to the Blanco-Mesaverde zone.

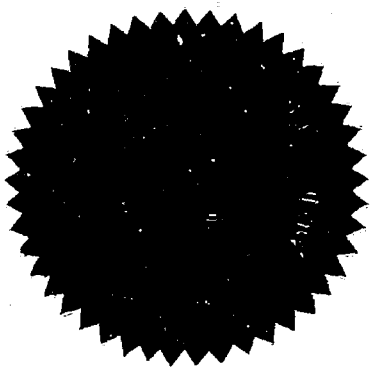
(3) That the operator of the subject well shall immediately notify the Commission's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

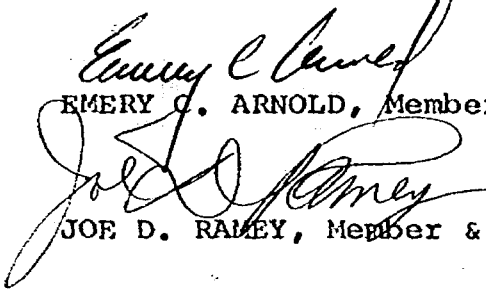
(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman


EMERY C. ARNOLD, Member


JOE D. RAMEY, Member & Secretary

S E A L

dr/

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 16, 1977

EXAMINER HEARING

IN THE MATTER OF:)
)
Application of Caulkins Oil Company for) CASE
downhole commingling, Rio Arriba County,) 5859
New Mexico.)

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil	Lynn Teschendorf, Esq.
Conservation Commission:	Legal Counsel for the Commission
	State Land Office Building
	Santa Fe, New Mexico

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Phone (505) 982-9212

1 MR. STAMETS: At this time we will call Case 5859 and
2 you will note that from the heading on the Docket that this
3 Case will be continued and readvertised.


4 MS. TESCHENDORF: Case 5859, application of Caulkins
5 Oil Company for downhole commingling, Rio Arriba County,
6 New Mexico.

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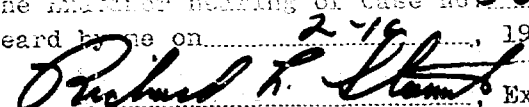
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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the final hearing of Case No. 5859,
heard by me on 2-19, 19 77.

Richard R. Stant, Examiner
New Mexico Oil Conservation Commission

Well Number: Breech 307
Unit M Section 13 26 North 7 West
Rio Arriba County, New Mexico

Range 7 West

Range 6 West

<p>El Paso</p> <p>pc C 91 19f 11 102 MV 150 pc 93</p>	<p>El Paso</p> <p>C 189 pc 14 12 pc 94 pc 95</p>	<p>Caulkins</p> <p>pc 123 7 D 172</p>	
<p>Caulkins</p> <p>pc 217 pcc 14 pc 281 Caulkins</p>	<p>Caulkins</p> <p>pm 221 224 13 pc 283 MD 307 pc 30 Mesa</p>	<p>Caulkins</p> <p>pc c 258 18 pc 312</p>	
<p>Caulkins</p> <p>330 PCC 23 332 PCC 308 pc c 382</p>	<p>Caulkins</p> <p>352 PCC 24 pc c 382 Caulkins</p>	<p>Mesa</p> <p>pc 2 19 pc 1 El Paso</p>	<p>El Paso</p> <p>pc 3 4 c 5 Mesa</p>

T
26
N

PC Pictured Cliffs Well
C Chacra Well
MV Mesa Verde Well
D Dakota Well
PM Pictured Cliffs-Mesa Verde Dual
PD Pictured Cliffs-Dakota Dual
PCC Pictured Cliffs-Chacra Dual

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Caulkins EXHIBIT NO. 1
CASE NO. 5859

SHUT-IN PRESSURES

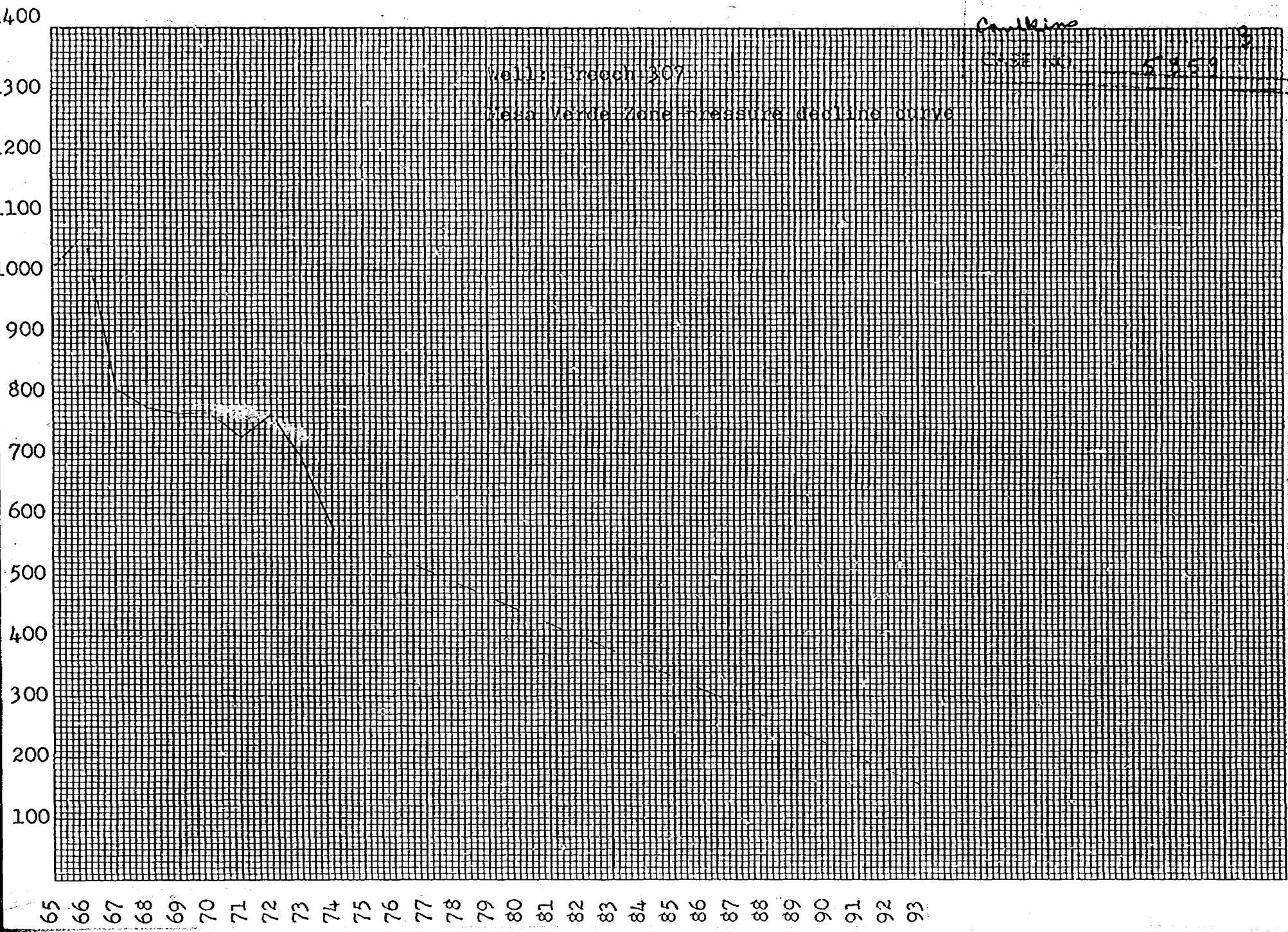
Breech # 307 Well

<u>Date</u>	<u>Mesa Verde Casing</u>	<u>Dakota Tubing</u>
11-25-65	1004	2358
3-4-66		1752
2-26-66	1060	
2-17-67		1451
7-18-67	809	
7-18-68	774	
12-2-68		1068
6-26-69	765	
7-26-69		1012
6-17-70	769	
9-17-70		877
6-18-71	728	864
4-17-72		887
5-17-72	763	
6-17-73	694	785
4-17-74	573	
10-18-75		851

Above all 7 day shut-ins

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Caulkins EXHIBIT NO. 2
CASE NO. 5859

FILE NO. 6851
DATE 3/1/71
Caulkins

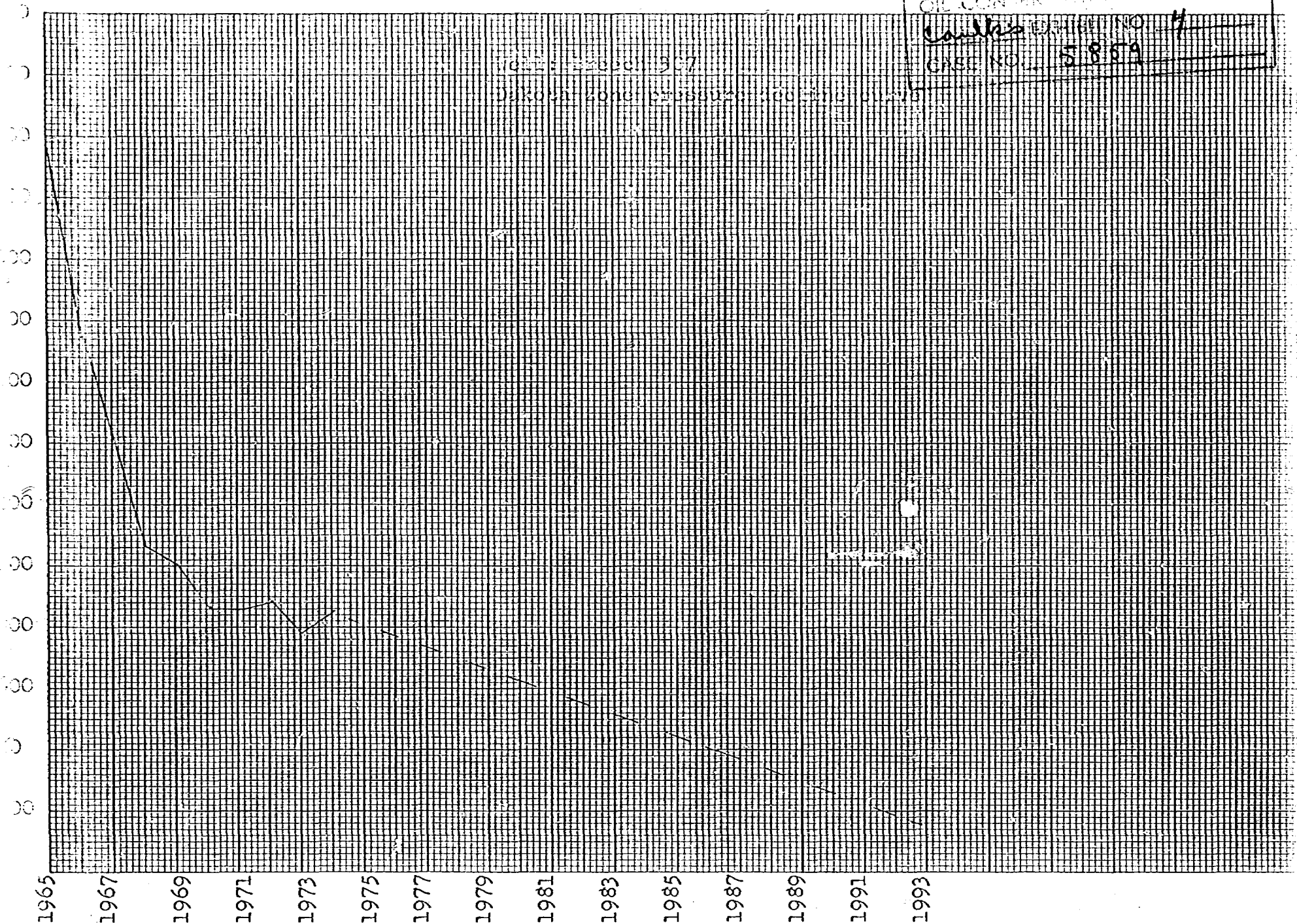


PEOPLE EXAMINED NUTTER
OIL CONCENTRATION CLASSIFICATION

Case NO. 5859
DATE NO. 5859

DATE: 12/28/1987

Dakota Zone pressure 300 Fm. 1010



Well: Breech 307

Annual Gas and Oil Production

Mesa Verde Zone

1966	9078 MCF	217 Barrels
1967	8199	137
1968	9093	104
1969	6164	71
1970	8802	63
1971	15621	74
1972	19040	82
1973	12790	84
1974	8612	66
1975	4055	33
Shut in 8-1-75		
Cumulative	101,454	931

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Carls EXHIBIT NO. 5
CASE NO. 5859

20

18

16

14

12

10

8

6

4

2

46 1323

K-W
10 X 10 TO 4 INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

Well: Breech 307

Resa Verde production curves

RESA VERDE PRODUCTION CURVES

WELL: BREECH 307

CUMULATIVE: 10,116,600

OIL CURVE X 100

GAS CURVE X 1000

DATE: 1-1-75

BY: 5854

CHECKED: 5854

APPROVED: 5854

DATE: 1-1-75

BY: 5854

CHECKED: 5854

APPROVED: 5854

DATE: 1-1-75

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Well: Breech 307

Annual Gas and Oil Production

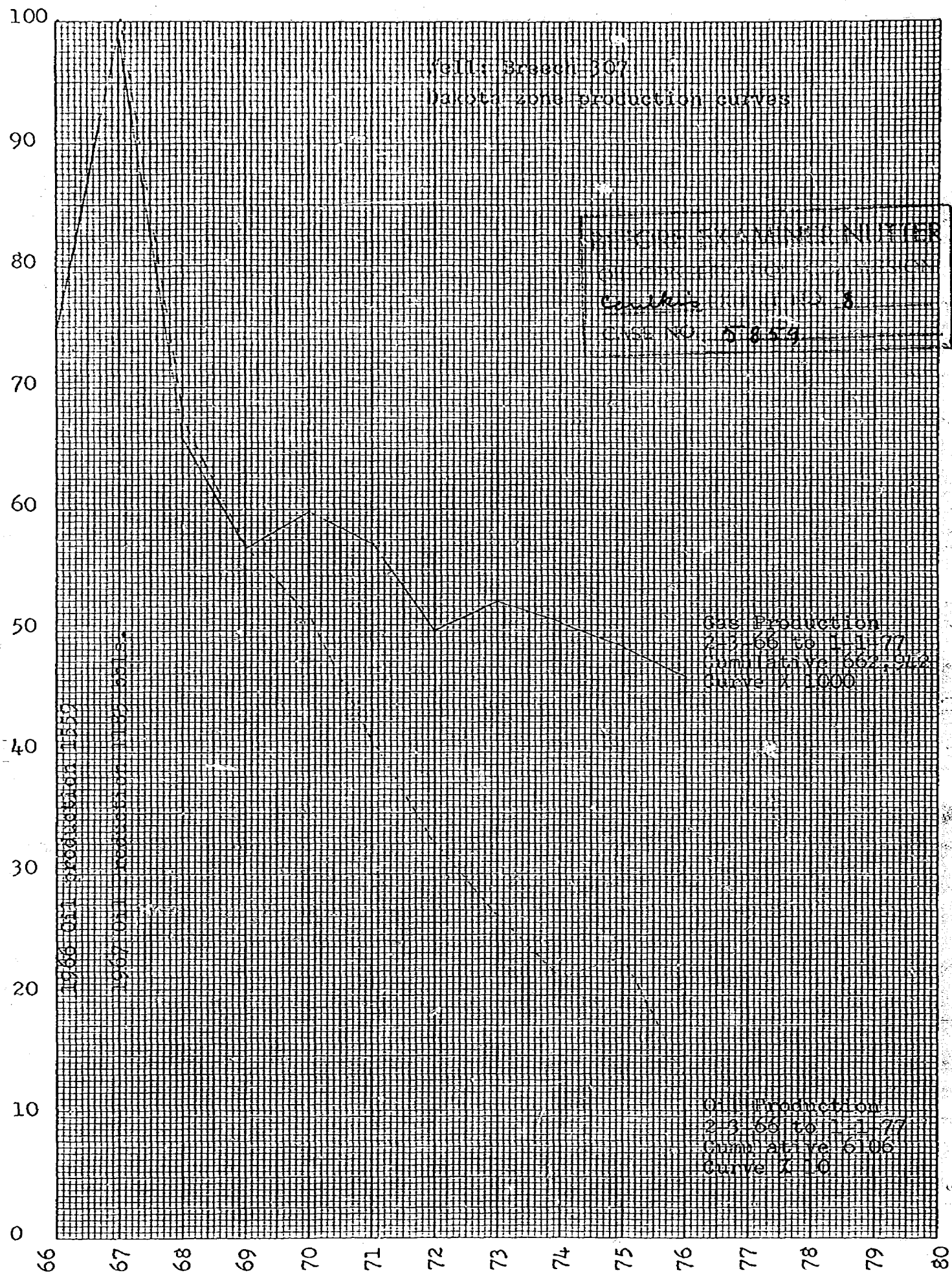
Dakota Zone

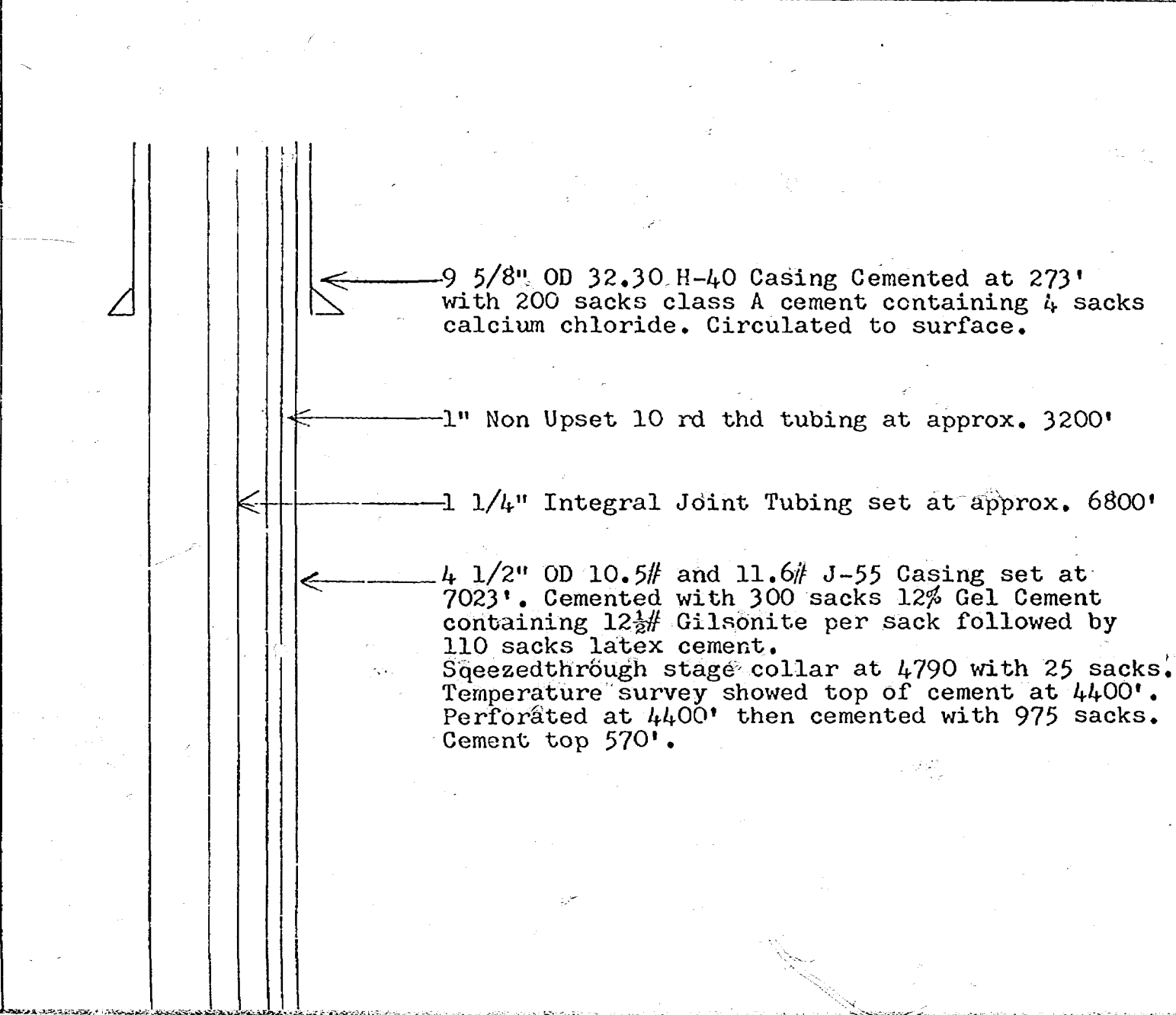
1966	75,018 MCF	1559 Barrels
1967	98,940	1185
1968	65,945	678
1969	57,011	571
1970	59,991	527
1971	57,364	408
1972	50,099	325
1973	52,200	266
1974	50,917	216
1975	48,832	234
1976	46,625	137
Cumulative	662,942	6106

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Canlin EXHIBIT NO. 7
CASE NO. 5859

46 1323

K&E 10 X 10 TO 1/4 INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



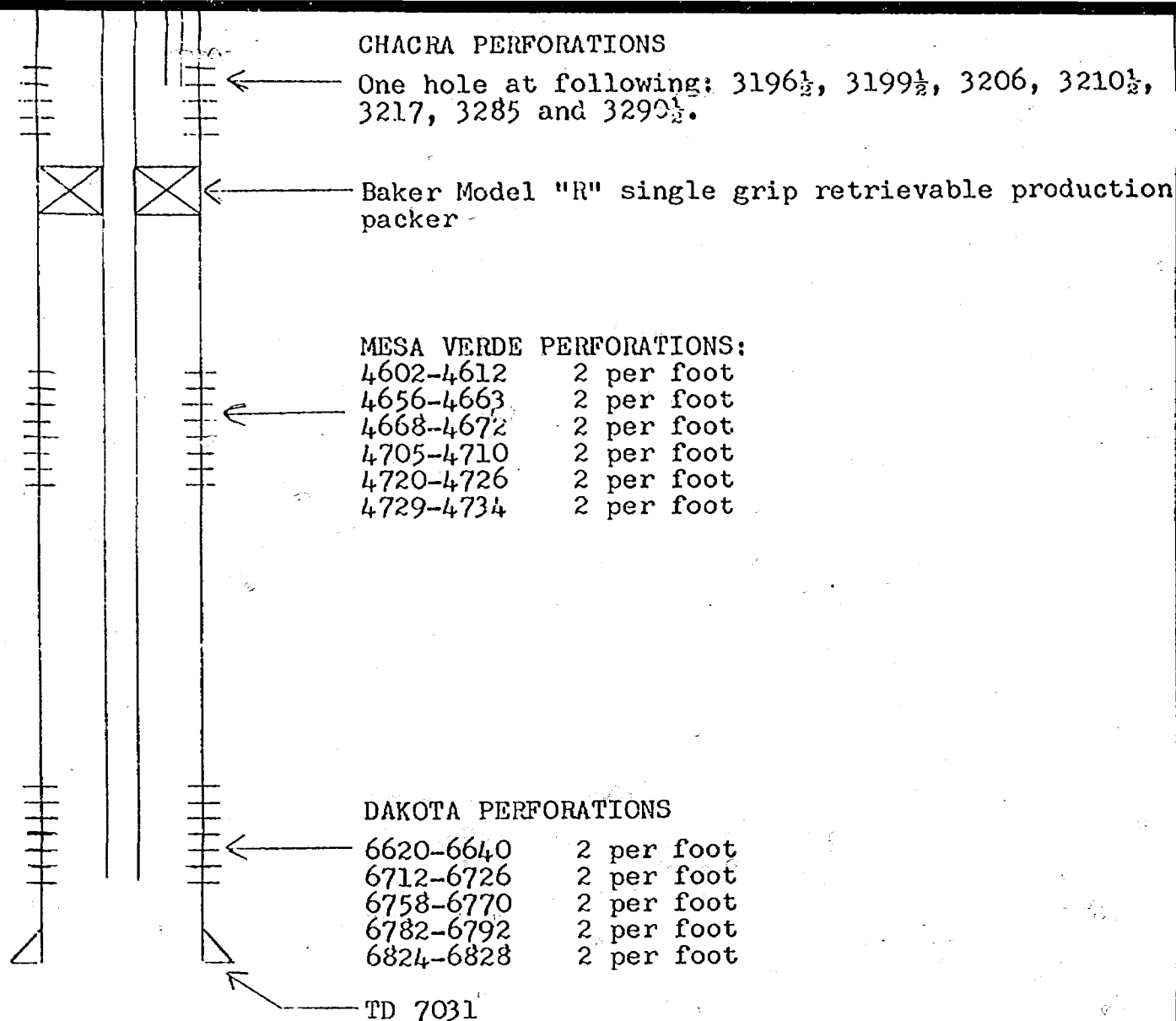


9 5/8" OD 32.30 H-40 Casing Cemented at 273'
with 200 sacks class A cement containing 4 sacks
calcium chloride. Circulated to surface.

1" Non Upset 10 rd thd tubing at approx. 3200'

1 1/4" Integral Joint Tubing set at approx. 6800'

4 1/2" OD 10.5# and 11.6# J-55 Casing set at
7023'. Cemented with 300 sacks 12% Gel Cement
containing 12 1/2# Gilsonite per sack followed by
110 sacks latex cement.
Squeezed through stage collar at 4790 with 25 sacks.
Temperature survey showed top of cement at 4400'.
Perforated at 4400' then cemented with 975 sacks.
Cement top 570'.



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. _____
CASE NO. _____

CAULKINS OIL COMPANY

Proposed Dual Completion:

Well Number: 307

Location: 790' from South Line and
1140' from West Line of Sec. 13 26N
7W

MECHANICS

Pull 1 1/4" IJ tubing with seal assy.

Set retrievable bridge plug at approx. 3350'.

Perforate and frac Chacra zone.

Remove bridge plug and then run 1 1/4" tubing to approx. 6800' with Baker Model "R" production packer set at approx. 3300'.

Run 1" NU 10 rd thd. tubing to 3200' for Chacra zone.

Mesa Verde-Dakota gas will be kept separate from Chacra gas until it is measured through Gas Company of New Mexico meters.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Caulkins EXHIBIT NO. 10
CASE NO. 5859

Caulkins Oil Company

Well Number 307

Unit M of section 13 26N 7W

Rio Arriba County, New Mexico

Case No. 5859

PROPOSAL

Commingle Mesa Verde and Dakota zones to make it possible to produce Mesa Verde zone, which is now shut in, then Dual complete well as Dakota-Mesa Verde and Chacra.

Ownership and all working interests are common for this well.

Exhibit # 1

9 section diagram showing this well and all offset locations.

Exhibit # 2

Tabulation of shut in pressures for Mesa Verde and Dakota zones from initial pressure to year 1975.

Exhibit # 3

Pressure decline curve from tabulation for Mesa Verde zone. Curve projected to shut in pressure of 150#.

Exhibit # 4

Pressure decline curve from tabulation for Dakota zone. Curve projected to shut in pressure 150#.

Exhibit # 5

Tabulation of yearly production for Mesa Verde zone.

Exhibit # 6

Production curves for yearly production for Mesa Verde zone.

Exhibit # 7

Tabulation of yearly production for Dakota zone.

Exhibit # 8

Production curves for yearly production from Dakota zone.

Exhibit # 9

Drawing of proposed recompletion.

Exhibit # 10

Mechanic's of proposed dual completion.

Exhibit # 11

Section of Electric Log showing perforated zones and proposed perforations for Chacra Zone

It is my opinion that this program if approved will not cause waste but will conserve well bore energy, therefore it should prolong life of this well.

Gas production from commingled zones should be credited $85\frac{1}{2}\%$ to Dakota zone and $14\frac{1}{2}\%$ to Mesa Verde zone.

Oil production should be credited 77% to Dakota zone and 23% to Mesa Verde zone.

These percentages are the same ratio as last full years production from each zone.

CASE 5381: Application of Western Oil Producers, Inc. for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Amoco State Well No. 1, completed in the Atoka formation at a point 660 feet from the South and West lines of Section 28, Township 16 South, Range 33 East, Lea County, New Mexico, the W/2 of said Section 28 to be dedicated to the well.

CASE 5859: (Continued & Readvertised)

Application of Caulkins Oil Company for a dual completion and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Blanco Mesaverde and Basin-Dakota production in the wellbore of its Breech D Well No. 307, located in Unit M of Section 13, Township 26 North, Range 7 West, Rio Arriba County, New Mexico, and to dually complete the commingled formations and the Chacra formation in said well.

Case 5869 (Continued and reaffirmed)

Application of Calkins Oil Company
for a lease completion and down-
hole commingling, Rio Arriba
County, New Mexico.

Applicant, in the above-styled case, seeks
authority to commingle Blanco Mesquite and
Basin-Dakota production in the wellbore of
its Breach D well No 307, located in Unit M
of Section 13, Township 26 North, Range 7 West,
Rio Arriba County, New Mexico, and to duallly
complete ~~the~~ ^{the} commingled ~~formations~~ ^{formations} and
the Chacra formation in said well.

Dockets Nos. 8-77 and 9-77 are tentatively set for hearing on March 9 and March 23, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - FRIDAY - FEBRUARY 11, 1977

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

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

CASE 5872: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the suspension of Rules 15(A) and 15(B) of the General Rules for Prorated Gas Pools as promulgated by Order No. R-1670, as amended, to permit overproduced wells to continue to produce gas during the present severe weather conditions without danger of being shut in for overproduction.

Docket No. 6-77

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 16, 1977

9 A.M. - OIL CONSERVATION COMMISSION 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:

- ALLOWABLE:
- (1) Consideration of the allowable production of gas for March, 1977, from seventeen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for March, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
 - (3) Consideration of purchaser's nominations for the one-year period beginning April 1, 1977, for both of the above areas.

CASE 5856: Application of Amoco Production Company for an unorthodox gas well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Elliott Gas Com "F" 1-R Well No. 1A to be drilled 1244 feet from the South line and 820 feet from the East line of Section 33, Township 30 North, Range 9 West, Blanco Mesaverde Pool, San Juan County, New Mexico.

CASE 5857: Application of Union Oil Company of California for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter its Pipeline Deep Unit Federal Well No. 3, the surface location of which is 1980 feet from the North and East lines of Section 7, Township 19 South, Range 3, East, Lea County, New Mexico, and to directionally drill said well in a southerly or easterly direction and complete it in the Morrow formation at a point no closer than 330 feet to the outer boundary of the proration unit, the E/2 of said Section 7.

CASE 5858: Application of Union Oil Company of California for 320-acre spacing, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the adoption of 320-acre spacing and proration units for the North Quail Ridge-Morrow Gas Pool, Lea County, New Mexico. In the absence of objection, the Commission will adopt such 320-acre spacing.

CASE 5859: (This case will be continued and readvertised.)

Application of Caulkins Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Basin-Dakota and Blanco-Mesaverde production in the wellbore of its Breech D Well No. 307 located in Unit M of Section 13, Township 26 North, Range 7 West, Rio Arriba County, New Mexico.

CASE 5860: Application of Rice Engineering & Operating, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the open hole interval from 4176 feet to 5500 feet of its Hobbs SWD Well No. P-16, located in Unit P of Section 16, Township 19 South, Range 38 East, Hobbs Field, Lea County, New Mexico.

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN AND FOX

ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 1769

SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

JAN 27 1977
OIL CONSERVATION COMMISSION
SANTA FE

January 26, 1977

Mr. Joe D. Ramey
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed is the application of Caulkins Oil Company for approval of down-hole commingling in its D-307 well, Dakota and Mesaverde Pools, Rio Arriba County, New Mexico.

It is requested that this case be set for hearing before the Commission's examiner, either in February or early March.

Yours very truly,

Jason Kellahin
Jason W. Kellahin

CC: Arnold E. Raether

JWK:kfm

Enclosure

JAN 27 1977
BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

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

A P P L I C A T I O N

Comes now Caulkins Oil Company and applies to the Oil Conservation Commission of New Mexico for permission to commingle production from the Basin Dakota Gas Pool and the Blanco Mesaverde Gas Pool, in its D-307 Well, located 890 feet from the South line and 990 feet from the West line of Section 13, Township 26 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Commission:

1. The well is presently operating as a dually completed well as approved by the Oil Conservation Commission.
2. Production from the Dakota pool has been approximately 4,000 m.c.f. per day and production from the Mesaverde has been between 600 and 700 m.c.f. per day.
3. Approval of commingling of production in the well bore will be a more economic operation, prolonging the productive life of the well, and thereby producing gas that would not otherwise be produced, and would enable the operator to open and test other productive zones presently unproduced.
4. Ownership of the well is common as to both zones, creating no accounting problems, and the correlative rights of all parties will be fully protected. Pressures are such

that there will be no migration of gas from one zone to another, and no damage would occur to either zone in the event of approval of commingling.

WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order approving commingling of production as requested.

Respectfully submitted,
CAULKINS OIL COMPANY

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

ATTORNEYS FOR APPLICANT