

CASE NO.

7059

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

CASE 7059: GULF OIL CORPORATION FOR THE
EXTENSION OF VERTICAL LIMITS OF THE
MATTIX POOL, LEA COUNTY, N. MEX.

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. 7039
Order No. R-6519

APPLICATION OF GULF OIL CORPORATION
FOR THE EXTENSION OF VERTICAL LIMITS
OF THE LANGLIE MATTIX POOL, LEA
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 29, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 17th day of November, 1980, 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, Gulf Oil Corporation, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3406 feet under the W/2 SW/4 of Section 30, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, said tract being the location of applicant's Woolworth Wells Nos. 4 and 5.

(3) That the vertical limits of the Jalmat Pool as defined by Order No. R-520, dated August 12, 1954, include the Tansill and Yates formations and all but the lowermost 100 feet of the Seven Rivers formation.

(4) That the vertical limits of the Langlie-Mattix Pool, as defined by said Order No. R-520, include the lowermost 100 feet of the Seven Rivers formation and all of the Queen formation.

Case No. 7059
Order No. R-6519

(5) That there has been some disparity among some geologists as to the actual base of the Seven Rivers formation and the top of the Queen formation and hence as to the location of the 100-foot marker separating the Jalmat and Langlie-Mattix Pools.

(6) That as a result of this disparity, the subject wells and certain other wells in the general area which are classified as Langlie-Mattix wells have perforations extending across the aforesaid 100-foot marker in the Seven Rivers formation and into the Jalmat Pool.

(7) That such crossing over from one pool into the other in this case appears to be an unintentional error.

(8) That to rectify the aforesaid error would require workover operations on the subject wells which would be expensive and might endanger the productivity of the subject wells, and would actually serve no beneficial purpose, inasmuch as the production and reservoir characteristics of the perforations immediately above and below the 100-foot marker are quite similar.

(9) That a reasonable solution to the problem is to contract the vertical limits of the Jalmat Pool and to adjust the vertical limits of the Langlie-Mattix Pool upward to a depth of 3406 feet to accommodate the present perforations in the lower Seven Rivers formation which are actually within the present Jalmat vertical limits in applicant's Woolworth Wells Nos. 4 and 5.

(10) That such adjustment will prevent waste and should not impair correlative rights and should be approved.

IT IS THEREFORE ORDERED:

(1) That the lowermost vertical limit of the Jalmat Pool underlying the W/2 SW/4 of Section 30, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, is hereby contracted to a depth of 3,406 feet, subsurface, and the uppermost limit of the Langlie-Mattix Pool underlying said tract is hereby extended upward to the same subsurface depth, 3,406 feet.

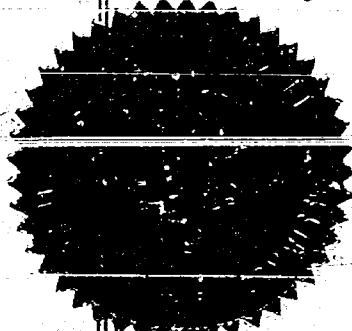
(2) That the effective date of the aforesaid revision of the vertical limits of said pools shall be the date the Gulf Oil Corporation Woolworth Wells Nos. 4 and 5 were perforated between 3,406 feet and 3,440 feet, and 3,414 feet and 3,455 feet, respectively.

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Case No. 7059
Order No. R-6519

(3) 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.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

16/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 October 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation)
for the extension of vertical limits)
of the Langlie Mattix Pool, Lea)
County, New Mexico.)

CASE
7059

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

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I N D E X

CHARLES F. KATTEYER

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C. D. STENBERG

Direct Examination by Mr. Carr	10
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E X H I B I T S

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MR. NUTTER: We'll call Case Number 7059.

MR. PEARCE: Application of Gulf Oil Corporation for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I am William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of Gulf Oil Corporation. I am appearing in association today with Joe Solis, an attorney with Gulf Oil Corporation from Houston, Texas, who is a member of the Texas bar.

I have one witness who needs to be sworn.

(Mr. Kalteyer sworn.)

CHARLES F. KALTEYER
being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your name and place of residence?

A Charles F. Kalteyer. I'm located in

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Midland.

Q By whom are you employed and in what capacity?

A Employed by Gulf Oil Corporation as their Chief Proration Engineer for the Southwest District.

Q Have you previously testified before this Commission and had your credentials accepted and made a matter of record?

A Yes, sir.

Q Are you familiar with the application in this case?

A Yes, sir.

Q And are you familiar with the subject -- subject area?

A Yes, sir.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q Mr. Kalteyer, what are the vertical limits of the Jalmat Gas Pool and the Langlie Mattix Oil Pool in this area?

A Under Order R-520 that was approved in August of '54, it provided, one, that the vertical limits of the Jalmat Gas Pool shall extend from the top of the Tansil

1 formation to a point 100 feet above the base of the Seven
2 Rivers formation.

3 And, two, that the vertical limits of
4 the Langlie Mattix Oil Pool shall extend from the point 100
5 feet above the base of the Seven Rivers formation to the base
6 of the Queen formation.
7

8 Q What exception did Order No. R-640,
9 adopted on May 27th, 1955, provide?

10 A Order R-640 provided in certain de-
11 scribed areas in T-24 South, Range 36, and T-24 South, Range
12 37, that, one, the vertical limits of the Jalmat Gas Pool shall
13 extend from the top of the Tansil formation to a point 250
14 feet above the base of the Seven Rivers formation.
15

16 And, two, the vertical limits of the
17 Langlie Mattix Oil Pool shall extend from a point 250 feet
18 above the base of the Seven Rivers formation to the base of
19 the Queen formation.

20 The exceptions set out in Order R-640
21 are shown on Gulf's Exhibit Number One. The Jalmat Gas Pool
22 exceptions are outlined in green and the Langlie Mattix Oil
23 Pool exception area is outlined in orange.
24

25 Q So there are areas where the Oil Conser-
26 vation Division has granted exceptions to the vertical limits
27 of either of these pools in the immediate area?

28 A Yes, sir.

1
2 Q And what is Gulf seeking with this ap-
3 plication here today?

4 A Gulf is seeking to contract the base of
5 the vertical limits of the Jalmat Gas Pool and the upward ex-
6 tension of the top of the vertical limits of the Langlie Mat-
7 tix Oil Pool under the west half of the southwest quarter of
8 Section 30, Township 24 South, Range 37 East, Lea County, New
9 Mexico, under Gulf's C. D. Woolworth lease, outlined in
10 yellow on Exhibit Number One, and which lies immediately south
11 of, and adjacent to, the Order No. R-640 exception area, and
12 this area has conditions similar to that for which the excep-
13 tion area was granted, and this will be demonstrated by our
14 next witness.
15

16
17 Q Mr. Kalteyer, there is a well immediate-
18 ly to the west of the two wells for which you're seeking an
19 exception in the southeast quarter of Section 25.

20 A Yes, sir.

21 Q Has that well received an exception to
22 the vertical limits of the Langlie Mattix?

23 A Yes, sir, that is Texas Pacific's
24 VanZant No. 1. Under the exception order, as found on Mr.
25 Runyon's tabulation, under the exception R -- or Order R-520,
26 granted in 1954, its completion is 135 feet into the Jalmat.
27

28 MR. NUTTER: Now which well is that,

1
2 Mr. Kalteyer?

3 A That would be the west offset to Gulf's
4 NO. 4 C. D. Woolworth.

5 MR. NUTTER: Okay, then it would be --

6
7 A In Unit I, Section 25, 24, 36.

8 MR. NUTTER: Okay, that's where it says
9 the lease is Olson's?

10 A Yes, sir.

11 MR. NUTTER: And that well was an old
12 TP well, you say?

13 A It's carried on Mr. Runyon's tabulation.

14 MR. NUTTER: Not as a Texas Pacific
15 well, though.

16
17 A There it is. Langlie Mattix oil pool
18 completion in Jalmat Pool, exempt under R-2954. That's page
19 seven.

20 MR. NUTTER: Okay, VanZant, I found it.

21 Q Now, Mr. Kalteyer, will you review the
22 background of Gulf's request?

23 A By the Oil Conservation letter of July
24 28th, 1980, Gulf was informed that the -- based on this study
25 made by the Hobbs Office, that Gulf's Wells 4 and 5 C. D.
26 Woolworth were completed above the top of the Langlie Mattix
27 Oil Pool boundary into the Jalmat Gas Pool by 41 feet and 34
28

1 feet, respectively.

2
3 By letter dated August 27th, 1980, Gulf
4 requested a hearing on this matter.

5 Q What was the production rate of these
6 two Gulf wells in August of 1980?

7 A Both of those wells are oil producers,
8 They're both on pump.

9 Well No. 4 produced at the average rate
10 of 16-1/2 barrels of oil per day, 8.7 barrels of water per
11 day, and 30.8 Mcf gas a day, with a ratio of 1870-to-1.

12 Well No. 5 produced at the average rate
13 of 2.8 barrels of oil per day, 9.4 barrels of water per
14 day, 32.5 Mcf gas per day, with a ratio of 11,430-to-1.

15 Q In your opinion would it be feasible to
16 squeeze off the upper perforated sections in these two wells
17 to bring them into conformance with the Oil Conservation Div-
18 ision's pick of the Langlie Mattix top?

19 A No, sir. These wells are low volume
20 producers. They're on pump, and there would be a high risk
21 of losing the wells if an attempt were made to re-enter these
22 wells to squeeze off these upper perfs.

23 Q And what is your recommendation to the
24 Oil Conservation Division?

25 A In the interest of preventing waste and
26
27
28

maximizing the recovery of hydrocarbons from under our C. D. Woolworth lease, it is recommended that the vertical limits of the base of the Jalmat Gas Pool be contracted and the vertical limits of the top of the Langlie Mattix Oil Pool be extended upward to a depth of 3406 feet under the west half of the southwest quarter of Section 30, Township 24 South, Range 37 East, Lea County, New Mexico, under Gulf's C. D. Woolworth lease as outlined in yellow on Exhibit One.

Q Was Exhibit One prepared by you?

A. Yes, sir.

MR. CARR: At this time, Mr. Nutter, we would offer into evidence Gulf's Exhibit Number One.

MR. NUTTER: Gulf's Exhibit Number One will be admitted in evidence.

MR. CARR: I have nothing further of this witness on direct.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Kalteyer, at the time this adjustment on the vertical limits was made by Order No. R-640, this was recognized as being sort of a synclinal accumulation of oil in the Jalmat Gas Pool, which was below the regular gas/oil contact, is that correct?

1
2 A Yes, sir, that is correct, and our next
3 witness will point that out in one of his -- or in his ex-
4 hibit.

5
6 Q I see, you're going to have a cross
7 section --

8 A Yes, sir.

9 Q -- running through there?

10 A Yes, sir. We will have a cross section
11 which will demonstrate that.

12 Q And now, if, as you've recommended, the
13 top would be extended to 3406, that would be the top of the
14 Langlie Mattix and the base of the Jalmat, and it would put
15 all of the perforations of these two wells in the Langlie Mattix
16 Pool, is that correct?

17 A Yes, sir, that would.

18 MR. NUTTER: Are there any further ques-
19 tions of Mr. Kalteyer? He may be excused.

20 MR. CARR: At this time I'd call C. D.
21 Stenberg.

22
23 (Mr. Stenberg sworn.)

24
25 C. D. STENBERG

26
27 being called as a witness and having been duly sworn upon his
28

oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Will you please state your name and place of residence?

A C. D. Stenberg, Midland, Texas.

Q By whom are you employed and in what capacity?

A Gulf Oil Corporation; geologist in the Production Department.

Q Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

A Yes, I have.

Q Are you familiar with the application in this case?

A Yes, I am.

Q Are you familiar with the subject area?

A Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q Mr. Stenberg, will you please refer to

1
2 what has been marked for identification as Gulf's Exhibit Num-
3 ber Two and review the data contained thereon for Mr. Nutter?
4

5 A Exhibit Two is a line of section which
6 is marked on Exhibit One as Line A-A'. It goes from north
7 to south; left to right is north to south.

8 Vertical scale on the logs is 1 inch per
9 100 feet and the horizontal scale of the logs is approximately
10 6 inches per mile, more or less to show the spacing.
11

12 The purpose of the cross section is to
13 show the structural position and as such they are placed on
14 zero datum sea level, sea level datum.

15 Three formation tops are shown, the Yates,
16 Seven Rivers, and the Queen. Now the tops on the first three
17 logs from the left are the same ones that were used on the
18 previously referred to stratigraphic nomenclature committee
19 cross section number three.

20 The other logs, I will -- where the tops
21 came from for the Queen, I'll refer to a little bit later.
22

23 Also on the cross section the completion
24 intervals as reported originally on the scout cards are shown
25 in red.

26 Now, the purpose of the exhibit is to
27 show that Gulf Wells Nos. 4 and 5, which are the fourth and
28 fifth logs on the -- from the left on the cross section, are

1
2 situated structurally in a synclinal feature in relation to
3 logs on the extreme ends of the section.

4 This was brought out before, as Mr.
5 Nutter said, in the previous testimony in establishing Order
6 No. R-640, and the purpose of that rule was, of course, to
7 extend the vertical limits of the Langlie Mattix Oil upward
8 to include more recoverable oil in the oil column below the
9 Jalmat Gas Pool.
10

11 The dashed lines in the center of the
12 cross section show the original, which would be Order R-520,
13 pool boundaries, and the upper one is the Order R-640 pool
14 boundary, which is 250 feet above the top of the Queen, or
15 base of the Seven Rivers.
16

17 It can be noted going from either --
18 going either to the left or the right from the Gulf wells,
19 the No. 4 and 5 Woolworth, that the upper perforated intervals
20 in the Gulf wells would be below the 100 foot limit, or Order
21 R-520, at either end of the cross section.

22 Concerning the tops of the formations
23 in this area, the lithologic sequence of alternating sands
24 and dolomites causes some correlation problems. The previous-
25 ly mentioned tops on the first three wells in the cross sec-
26 tion were, as I said, were taken from the stratigraphic nomen-
27 clature committee cross sections. The tops on the -- the Queen
28

1
2 tops on the Gulf Wells No. 4 and 5 are from the Hobbs report,
3 where were -- which are 3555 and on the No. 5 should read
4 3540, one foot difference. I mean, actual report it was 3540.
5

6 However, at the --

7 MR. NUTTER: So in other words, those
8 tops of the Queen there, those are John Runyon's picks?

9 A. These are John Runyon's picks, 3555 and
10 3540.

11 MR. NUTTER: Okay.

12 A. I got one foot difference there some-
13 where .
14

15 Now, at the same time, as correlated by
16 Gulf personnel in the Hobbs office when these wells were ready
17 for perforating, the Queen top was picked at 3500 feet in the
18 No. 4 Woolworth, and 3487 in the No. 5.

19 Q. Now, Mr. Stenberg, if the Oil Conserva-
20 tion Division were to accept the Gulf top of the Langlie
21 Mattix, would an exception be required?

22 A. No. If these tops -- if these tops
23 were accepted as -- as correlated, that top of the Queen would
24 be what was referred to as the commonly used Queen, or the --
25 I believe that was referred to before in a previous hearing,
26 if these tops were used, of course, the perforations would be
27 within the prescribed limits of 100 feet above the top of the
28

1
2 Queen.

3 Q But working from Mr. Runyon's pick,
4 then the exception is required?

5 A Yes. If -- if Gulf were -- if Gulf is
6 to accept the tops as correlated on this cross section, which
7 are Commission tops and nomenclature -- or cross section
8 stratigraphic nomenclature committee tops, then we would re-
9 commend that the vertical limits of the Langlie Mattix Pool
10 be extended upward to about the 3406 to cover the top perf
11 in the -- in the highest well, which is the No. 5.

12 Q Was Exhibit Number Two prepared by you?

13 A Yes.

14 MR. CARR: At this time, Mr. Nutter,
15 we would offer Gulf's Exhibit Number Two.

16 MR. NUTTER: Gulf Exhibit Two will be
17 admitted in evidence.

18 MR. CARR: I have nothing further of
19 Mr. Stenberg on direct.

20 MR. NUTTER: I don't believe I do either.
21 Are there any questions of Mr. Stenberg? He may be excused.

22 Do you have anything further, Mr. Carr?

23 MR. CARR: Nothing further.

24 MR. NUTTER: Does anyone have anything
25 they wish to offer in Case Number 7059?
26
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28

We'll take the case under advisement.

(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion 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.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 7059
heard by me on 10/29 19 80.

[Signature], Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 October 1980

EXAMINER HEARING

IN THE MATTER OF:)

Application of Gulf Oil Corporation)
for the extension of vertical limits)
of the Langlie Mattix Pool, Lea)
County, New Mexico.)

CASE
7059

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

William F. Carr, Esq.
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Santa Fe, New Mexico 87501

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I N D E X

CHARLES F. KALTEYER

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E X H I B I T S

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MR. NUTTER: We'll call Case Number 7059.

MR. PEARCE: Application of Gulf Oil Corporation for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico.

MR. CARR: May it please the Examiner, I am William F. Carr, Campbell and Black, P. A., Santa Fe, appearing on behalf of Gulf Oil Corporation. I am appearing in association today with Joe Solis, an attorney with Gulf Oil Corporation from Houston, Texas, who is a member of the Texas bar.

I have one witness who needs to be sworn.

(Mr. Kalteyer sworn.)

CHARLES F. KALTEYER
being called as a witness and having been duly sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your name and place of residence?

A Charles F. Kalteyer. I'm located in

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2 Midland.

3 Q By whom are you employed and in what
4 capacity?

5 A Employed by Gulf Oil Corporation as
6 their Chief Proration Engineer for the Southwest District.

7 Q Have you previously testified before
8 this Commission and had your credentials accepted and made a
9 matter of record?
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11 A Yes, sir.

12 Q Are you familiar with the application
13 in this case?

14 A Yes, sir.

15 Q And are you familiar with the subject --
16 subject area?
17

18 A Yes, sir.

19 MR. CARR: Are the witness' qualifications
20 acceptable?
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22 MR. NUTTER: Yes, they are.

23 Q Mr. Kalteyer, what are the vertical
24 limits of the Jalmat Gas Pool and the Langlie Mattix Oil
25 Pool in this area?

26 A Under Order R-520 that was approved in
27 August of '54, it provided, one, that the vertical limits of
28 the Jalmat Gas Pool shall extend from the top of the Tansil

1 formation to a point 100 feet above the base of the Seven
2 Rivers formation.

3 And, two, that the vertical limits of
4 the Langlie Mattix Oil Pool shall extend from the point 100
5 feet above the base of the Seven Rivers formation to the base
6 of the Queen formation.
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8 Q What exception did Order No. R-640,
9 adopted on May 27th, 1955, provide?

10 A Order R-640 provided in certain de-
11 scribed areas in T-24 South, Range 36, and T-24 South, Range
12 37, that, one, the vertical limits of the Jalmat Gas Pool shall
13 extend from the top of the Tansil formation to a point 250
14 feet above the base of the Seven Rivers formation.
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16 And, two, the vertical limits of the
17 Langlie Mattix Oil Pool shall extend from a point 250 feet
18 above the base of the Seven Rivers formation to the base of
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21 are shown on Gulf's Exhibit Number One. The Jalmat Gas Pool
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25 Q So there are areas where the Oil Conser-
26 vation Division has granted exceptions to the vertical limits
27 of either of these pools in the immediate area?

28 A Yes, sir.

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2 Q And what is Gulf seeking with this ap-
3 plication here today?

4 A Gulf is seeking to contract the base of
5 the vertical limits of the Jalmat Gas Pool and the upward ex-
6 tension of the top of the vertical limits of the Langlie Mat-
7 tix Oil Pool under the west half of the southwest quarter of
8 Section 30, Township 24 South, Range 37 East, Lea County, New
9 Mexico, under Gulf's C. D. Woolworth lease, outlined in
10 yellow on Exhibit Number One, and which lies immediately south
11 of, and adjacent to, the Order No. R-540 exception area, and
12 this area has conditions similar to that for which the excep-
13 tion area was granted, and this will be demonstrated by our
14 next witness.
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16 Q Mr. Kalteyer, there is a well immediate-
17 ly to the west of the two wells for which you're seeking an
18 exception in the southeast quarter of Section 25.
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20 A Yes, sir.

21 Q Has that well received an exception to
22 the vertical limits of the Langlie Mattix?
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24 A Yes, sir, that is Texas Pacific's
25 VanZant No. 1. Under the exception order, as found on Mr.
26 Runyon's tabulation, under the exception R -- or Order R-520,
27 granted in 1954, its completion is 135 feet into the Jalmat.
28

MR. NUTTER: Now which well is that,

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2 Mr. Kalteyer?

3 A That would be the west offset to Gulf's
4 No. 4 C. D. Woolworth.

5
6 MR. NUTTER: Okay, then it would be --

7 A In Unit I, Section 25, 24, 36.

8 MR. NUTTER: Okay, that's where it says
9 the lease is Olson's?

10 A Yes, sir.

11 MR. NUTTER: And that well was an old

12 TP well, you say?

13 A It's carried on Mr. Runyon's tabulation.

14 MR. NUTTER: Not as a Texas Pacific
15 well, though.

16 A There it is. Langlie Mattix oil pool
17 completion in Jalmat Pool, exempt under R-2954. That's page
18 seven.

19
20 MR. NUTTER: Okay, Vanzant, I found it.

21 Q Now, Mr. Kalteyer, will you review the
22 background of Gulf's request?

23 A By the Oil Conservation letter of July
24 28th, 1980, Gulf was informed that the -- based on this study
25 made by the Hobbs Office, that Gulf's Wells 4 and 5 C. D.
26 Woolworth were completed above the top of the Langlie Mattix
27 Oil Pool boundary into the Jalmat Gas Pool by 41 feet and 34
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1
2 feet, respectively.

3 By letter dated August 27th, 1980, Gulf
4 requested a hearing on this matter.

5 Q What was the production rate of these
6 two Gulf wells in August of 1980?

7
8 A Both of those wells are oil producers.
9 They're both on pump.

10 Well No. 4 produced at the average rate
11 of 15 1/2 barrels of oil per day, 8.7 barrels of water per
12 day, and 30.8 Mcf gas a day, with a ratio of 1870-to-1.

13 Well No. 5 produced at the average rate
14 of 2.8 barrels of oil per day, 9.4 barrels of water per
15 day, 32.5 Mcf gas per day, with a ratio of 11,430-to-1.

16 Q In your opinion would it be feasible to
17 squeeze off the upper perforated sections in these two wells
18 to bring them into conformance with the Oil Conservation Div-
19 ision's pick of the Langlie Mattix top?

20
21 A No, sir. These wells are low volume
22 producers. They're on pump, and there would be a high risk
23 of losing the wells if an attempt were made to re-enter these
24 wells to squeeze off these upper perfs.

25 Q And what is your recommendation to the
26 Oil Conservation Division?

27
28 A In the interest of preventing waste and

1
2 maximizing the recovery of hydrocarbons from under our C. D.
3 Woolworth lease, it is recommended that the vertical limits
4 or the base of the Jalmat Gas Pool be contracted and the verti-
5 cal limits of the top of the Langlio Mattix Oil Pool be ex-
6 tended upward to a depth of 3406 feet under the west half of
7 the southwest quarter of Section 30, Township 24 South, Range
8 37 East, Lea County, New Mexico, under Gulf's C. D. Woolworth
9 lease as outlined in yellow on Exhibit One.
10

11 Q Was Exhibit One prepared by you?

12 A Yes, sir.

13 MR. CARR: At this time, Mr. Nutter, we
14 would offer into evidence Gulf's Exhibit Number One.
15

16 MR. NUTTER: Gulf's Exhibit Number One
17 will be admitted in evidence.

18 MR. CARR: I have nothing further of
19 this witness on direct.
20

21 CROSS EXAMINATION

22 BY MR. NUTTER:

23 Q Mr. Kalteyer, at the time this adjustment
24 on the vertical limits was made by Order No. R-640, this was
25 recognized as being sort of a synclinal accumulation of oil
26 in the Jalmat Gas Pool, which was below the regular gas/oil
27 contact, is that correct?
28

1
2 A Yes, sir, that is correct, and our next
3 witness will point that out in one of his -- or in his ex-
4 hibit.

5
6 Q I see, you're going to have a cross
7 section --

8 A Yes, sir.

9 Q -- running through there?

10 A Yes, sir. We will have a cross section
11 which will demonstrate that.

12 Q And now, if, as you've recommended, the
13 top would be extended to 3406, that would be the top of the
14 Langlie Mattix and the base of the Jalmat, and it would put
15 all of the perforations of these two wells in the Langlie Mattix
16 Pool, is that correct?

17 A Yes, sir, that would.

18 MR. NUTTER: Are there any further ques-
19 tions of Mr. Kalteyer? He may be excused.

20 MR. CARR: At this time I'd call C. D.
21 Stenberg.

22
23 (Mr. Stenberg sworn.)

24
25 C. D. STENBERG
26
27 being called as a witness and having been duly sworn upon his
28

oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Will you please state your name and place of residence?

A C. D. Stenberg, Midland, Texas.

Q By whom are you employed and in what capacity?

A Gulf Oil Corporation; geologist in the Production Department.

Q Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

A Yes, I have.

Q Are you familiar with the application in this case?

A Yes, I am.

Q Are you familiar with the subject area?

A Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q Mr. Stenberg, will you please refer to

1
2 what has been marked for identification as Gulf's Exhibit Num-
3 ber Two and review the data contained thereon for Mr. Nutter?
4

5 A Exhibit Two is a line of section which
6 is marked on Exhibit One as Line A-A'. It goes from north
7 to south; left to right is north to south.

8 Vertical scale on the logs is 1 inch per
9 100 feet and the horizontal scale of the logs is approximately
10 6 inches per mile, more or less to show the spacing.

11 The purpose of the cross section is to
12 show the structural position and as such they are placed on
13 zero datum sea level, sea level datum.
14

15 Three formation tops are shown, the Yates,
16 Seven Rivers, and the Queen. Now the tops on the first three
17 logs from the left are the same ones that were used on the
18 previously referred to stratigraphic nomenclature committee
19 cross section number three.

20 The other logs, I will -- where the tops
21 came from for the Queen, I'll refer to a little bit later.
22

23 Also on the cross section the completion
24 intervals as reported originally on the scout cards are shown
25 in red.

26 Now, the purpose of the exhibit is to
27 show that Gulf Wells Nos. 4 and 5, which are the fourth and
28 fifth logs on the -- from the left on the cross section, are

1
2 situated structurally in a synclinal feature in relation to
3 logs on the extreme ends of the section.
4

5 This was brought out before, as Mr.
6 Nutter said, in the previous testimony in establishing Order
7 No. R-640, and the purpose of that rule was, of course, to
8 extend the vertical limits of the Langlie Mattix Oil upward
9 to include more recoverable oil in the oil column below the
10 Jalmat Gas Pool.

11 The dashed lines in the center of the
12 cross section show the original, which would be Order R-520,
13 pool boundaries, and the upper one is the Order R-640 pool
14 boundary, which is 250 feet above the top of the Queen, or
15 base of the Seven Rivers.
16

17 It can be noted going from either --
18 going either to the left or the right from the Gulf wells,
19 the No. 4 and 5 Woolworth, that the upper perforated intervals
20 in the Gulf wells would be below the 100 foot limit, or Order
21 R-520, at either end of the cross section.
22

23 Concerning the tops of the formations
24 in this area, the lithology ⁽⁹⁾ sequence of alternating sands
25 and dolomites causes some correlation problems. The previous-
26 ly mentioned tops on the first three wells in the cross sec-
27 tion were, as I said, were taken from the stratigraphic nomen-
28 clature committee cross sections. The tops on the -- the Queen

1
2 tops on the Gulf Wells No. 4 and 5 are from the Hobbs report,
3 where were -- which are 3555 and on the No. 5 should read
4 3540, one foot difference. I mean, actual report it was 3540.

5
6 However, at the --

7 MR. NUTTER: So in other words, those
8 tops of the Queen there, those are John Runyon's picks?

9 A. These are John Runyon's picks, 3555 and
10 3540.

11 MR. NUTTER: Okay.

12 A. I got one foot difference there some-
13 where .

14
15 Now, at the same time, as correlated by
16 Gulf personnel in the Hobbs office when these wells were ready
17 for perforating, the Queen top was picked at 3500 feet in the
18 No. 4 Woolworth, and 3487 in the No. 5.

19 Q. Now, Mr. Stenberg, if the Oil Conserva-
20 tion Division were to accept the Gulf top of the Langlie
21 Mattix, would an exception be required?

22 A. No. If these tops -- if these tops
23 were accepted as -- as correlated, that top of the Queen would
24 be what was referred to as the commonly used Queen, or the --
25 I believe that was referred to before in a previous hearing,
26 if these tops were used, of course, the perforations would be
27 within the prescribed limits of 100 feet above the top of the
28

Queen.

Q But working from Mr. Runyon's pick, then the exception is required?

A Yes. If -- if Gulf were -- if Gulf is to accept the tops as correlated on this cross section, which are Commission tops and nomenclature -- or cross section stratigraphic nomenclature committee tops, then we would recommend that the vertical limits of the Langlie Mattix Pool be extended upward to about the 3406 to cover the top part in the -- in the highest well, which is the No. 5.

Q Was Exhibit Number Two prepared by you?

A Yes.

MR. CARR: At this time, Mr. Nutter, we would offer Gulf's Exhibit Number Two.

MR. NUTTER: Gulf Exhibit Two will be admitted in evidence.

MR. CARR: I have nothing further of Mr. Stenberg on direct.

MR. NUTTER: I don't believe I do either. Are there any questions of Mr. Stenberg? He may be excused.

Do you have anything further, Mr. Carr?

MR. CARR: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 7059?

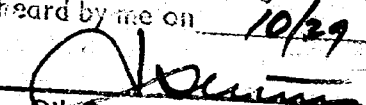
We'll take the case under advisement.

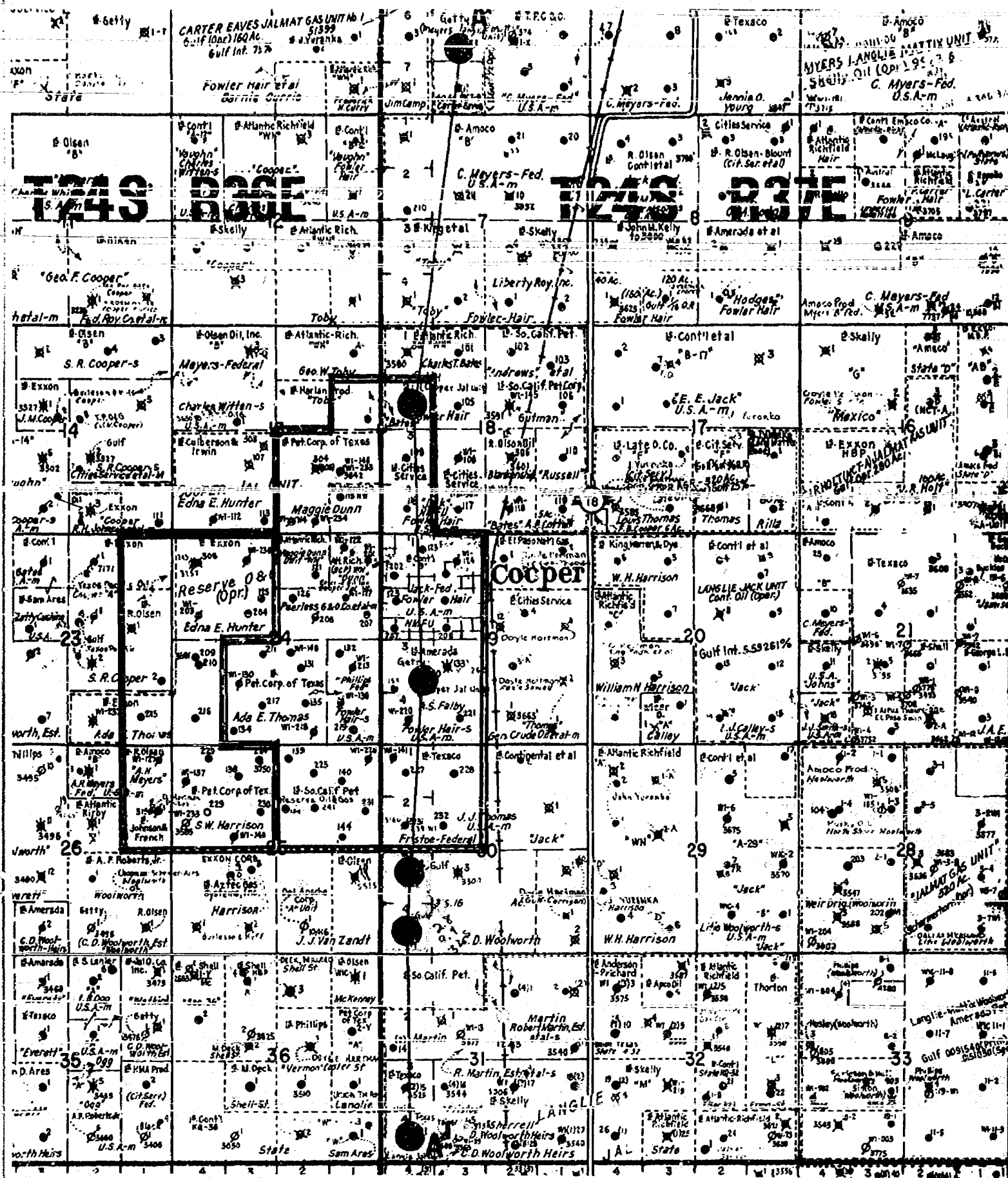
(Hearing concluded.)

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion 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.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-D
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 1059
heard by me on 10/29 1980.
, Examiner
Oil Conservation Division



GULF OIL CORPORATION

Southwest Division

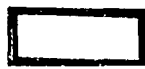
Midland, Texas

C. D. WOOLWORTH LEASE LANGLIE-MATTIX OIL POOL

JALMAT GAS POOL

Lea County, New Mexico

Scale: 1"=3000'



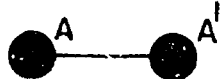
R-640 Jalmat Gas Pool Base 250' Above Base of 7 Rivers



R-640 Langlie-Mattix Oil Pool Top 250' Above Base of 7 Rivers

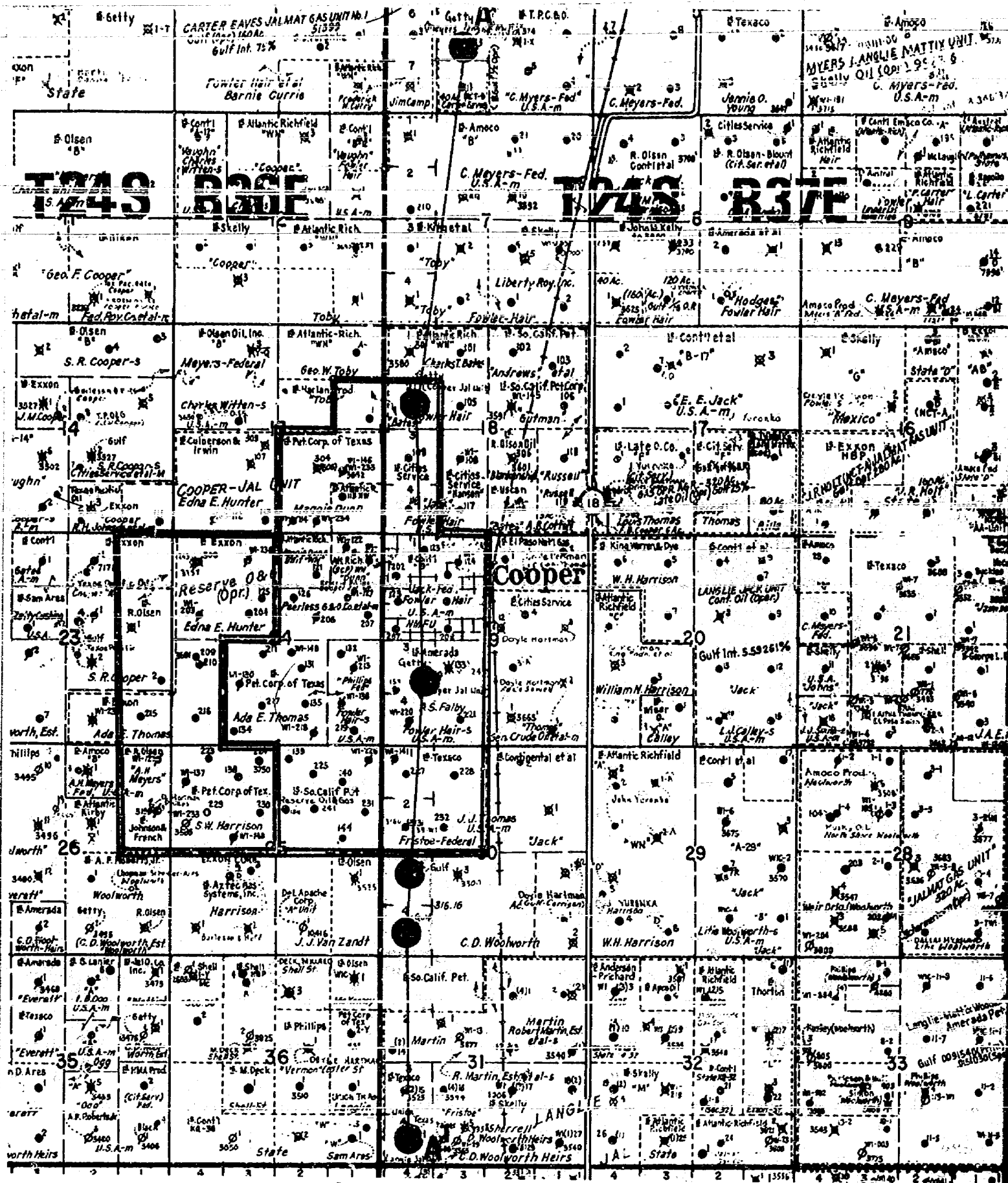


R-640 Cooper-Jal Oil Pool Top 250' Above Base of 7 Rivers



Line of Section

EXHIBIT I
CASE NO. 7059
10-29-80



GULF OIL CORPORATION

Southwest Division

Midland, Texas

C.D. WOOLWORTH LEASE LANGLIE-MATTIX OIL POOL

JALMAT GAS POOL

Lea County, New Mexico

Scale: 1"=3000'

R-640 Jalmat Gas Pool Base 250' Above Base of 7 Rivers

R-640 Langlie-Mattix Oil Pool Top 250' Above Base of 7 Rivers

R-640 Cooper-Jal Oil Pool Top 250' Above Base of 7 Rivers

Line of Section

EXHIBIT I
CASE NO. 7059
10-29-60

Dockets Nos. 36-80 and 37-80 are tentatively set for November 12 and 25, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 29, 1980

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

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

CASE 7055: (This case will be continued to the November 25 hearing.)

Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Eaves-Lea Unit Area, comprising 2209 acres, more or less, of State and Federal lands in Township 21 South, Ranges 32 and 33 East.

CASE 7056: Application of Getty Oil Company for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3540 feet, subsurface, under the NW/4 SW/4 of Section 3, Township 24 South, Range 36 East.

CASE 7057: Application of Doyle Hartman for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to the following depths underlying the following 40-acre tracts in Township 24 South, Range 37 East: NW/4 SE/4 of Section 30: 3364 feet; NE/4 SE/4 of Section 30: 3389 feet; and SE/4 SW/4 of Section 20: 3390 feet.

CASE 7058: Application of Tahoe Oil & Cattle Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbores of its Harrison Wells Nos. 1 and 2 located in Units A and H, respectively, and its Judy Well No. 1 located in Unit C, all in Section 7, Township 25 South, Range 37 East.

CASE 7059: Application of Gulf Oil Corporation for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3406 feet under the W/2 SW/4 of Section 30, Township 24 South, Range 37 East.

CASE 7060: Application of Mobil Producing Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbores of its Humphrey Queen Unit Wells Nos. 13 in Unit I of Section 4 and 16 in Unit K of Section 3 and its Langlie Mattix Queen Unit Well No. 10 in Unit C of Section 15, all in Township 25 South, Range 37 East.

CASE 7061: Application of Bettis, Boyle & Stovall for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbore of its Justis B Well No. 8 located in Unit G of Section 20, Township 25 South, Range 37 East.

CASE 7062: Application of El Paso Natural Gas Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Jalmat and Langlie Mattix production in the wellbore of its Carlson Federal Well No. 2 located in Unit N of Section 23, Township 25 South, Range 37 East.

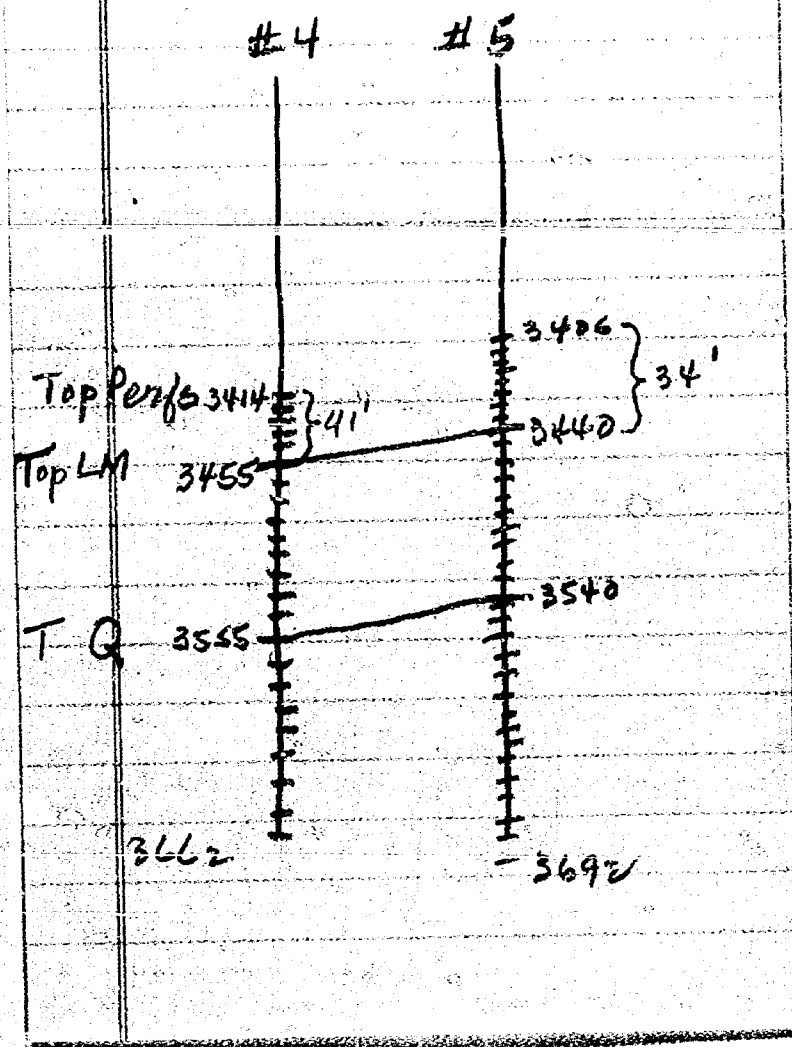
CASE 7063: Application of Lewis Burleson for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3150 feet under the SE/4 NW/4 of Section 22, Township 25 South, Range 37 East.

CASE 7064: (Continued from October 8, 1980, Commission Hearing)

Application of John Yuronka for the extension of vertical limits of the Langlie Mattix Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the vertical limits of the Jalmat Pool and the upward extension of the vertical limits of the Langlie Mattix Pool to a depth of 3,408 feet, subsurface, under the NW/4 SW/4 of Section 17, Township 24 South, Range 37 East.

CASE 7064: Application of El Paso Natural Gas Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 440-acre proration unit comprising the S/2, S/2 NW/4, and NW/4 NW/4 of Section 33, Township 25 South, Range 37 East, Jalmat Gas Pool, to its Gregory Fed. Well No. 1 located in Unit J and its Gregory Fed. A Well No. 2, at an unorthodox location in the center of Unit L of said Section 33.

Dan Nuttner



Gulf Oil Exploration and Production Company

J. M. TRENNER
GENERAL MANAGER PRODUCTION
SOUTHWEST DISTRICT

August 27, 1980

RECEIVED
SEP 1 1980
OIL CONSERVATION DIVISION
SANTA FE

P. O. Drawer 1150
Midland, TX 79702

New Mexico Energy and
Minerals Department
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Case 7059

Attention: Mr. Joe D. Ramey

Re: Jalmat and Langlie Mattix Pool
Boundaries, Lea County, New Mexico

Gentlemen:

On August 7, 1980 a meeting was held in your Hobbs office concerning a study by Mr. John Runyan indicating certain well completions had crossed Langlie Mattix and/or Jalmat Pool boundaries. Two Gulf Oil wells were involved in this matter.

It is respectfully requested that a hearing be set on your October 17, 1980 Examiners Docket to consider an order amending or revising the existing vertical and horizontal limits of the Jalmat Gas Pool and the Langlie Mattix Oil Pool in the area of the W/2 SW/4 Section 30 T-24-S, R-37-E.

Yours very truly,

for: *B. F. Berlin*
R. H. PEACOCK
Technical Manager

CFK/ph

cc: New Mexico OCD
P. O. Box 1980
Hobbs, New Mexico 88240



A DIVISION OF GULF OIL CORPORATION

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 7059

Order No. R-6519

APPLICATION OF GULF OIL CORPORATION
FOR THE EXTENSION OF VERTICAL LIMITS
OF THE LANGLIE MATTIX POOL, LEA COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 29
19 80, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this _____ day of _____, 19 80, 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, Gulf Oil Corporation, seeks the
contraction of the vertical limits of the Jalmat Pool and the
upward extension of the vertical limits of the Langlie Mattix
Pool to a depth of 3406 feet under the W/2 SW/4 of Section 30,
Township 24 South, Range 37 East, NMPM, Lea County, New Mexico,
*said tract being the location of applicant's Woolworth
Wells Nos 4 and 5.*

(3) That the vertical limits of the Jalmat Pool as defined by Order No. R-520, dated August 12, 1954, include the Tansill and Yates formations and all but the lowermost 100 feet of the Seven Rivers formation.

(4) That the vertical limits of the Langlie-Mattix Pool, as defined by said Order No. R-520, include the lowermost 100 feet of the Seven Rivers formation and all of the Queen formation.

(5) That there has been some disparity among some geologists as to the ^{actual} base of the Seven Rivers formation and the top of the Queen formation and hence as to the location of the 100-foot marker separating the Jalmat and Langlie-Mattix pools.

(6) That as a result of this disparity, the subject wells and ^{certain} other wells in the general area which are classified as Langlie-Mattix wells have perforations extending across the aforesaid 100-foot marker in the Seven Rivers formation *and into the Jalmat Pool.*

(7) That such crossing over from one pool into the other in this case appears to be an unintentional error.

(8) That to rectify the aforesaid error would require workover operations on the subject wells which would be expensive and might endanger the productivity of the subject wells, and would actually serve no beneficial purpose, inasmuch as the production and reservoir characteristics of the perforations immediately above and below the 100-foot marker are quite similar.

(9) That ~~contract the vertical limits of the Jalmat Pool and to~~ a reasonable solution to the problem is to adjust the vertical limits of the Langlie-Mattix Pool upward to *a depth of 3406 feet* to accommodate the present perforations in the lower Seven Rivers formation which are actually within the present Jalmat vertical limits *in applicant's Woolworth Wells Nos. 4 and 5.*

(10) That such adjustment will prevent waste and should not impair correlative rights and should be approved.

IT IS THEREFORE ORDERED:

(1) That the lowermost vertical limit of the Jalmat Pool underlying the W/2 SW/4 of Section 30, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico, is hereby contracted to a depth of 3406 feet, subsurface, and the uppermost limit of the Langlie-Mattix Pool underlying said tract is hereby extended upward to the same subsurface depth, 3406 feet.

(2) That the effective date of the aforesaid revision of the vertical limits of said pools shall be the date the Gulf Oil Corporation ^{Woolworth} Wells Nos 4 and 5 were perforated between 3406 feet and 3440 feet, and 3414 feet and 3455 feet, respectively.

(3) Jurisdiction.
Done at Santa Fe, New Mexico, on the day and year hereinabove designated.