POOL RECLASSIFICATION AND A SPECIAL GOR LIMIT, LEA COUNTY, NEW MEXICO

(ase Number

6040

Application

Transcripts.

Small Exhibits

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION State Land Office Building Santa Fe, New Mexico 11 October 1978

EXAMINER HEARING

IN THE MATTER OF:

Case 6040 being reopened pursuant) to the provisions of Order No. R-5552 which order created the North Teague-Devonian Pool, Lea County, New Mexico.

CASE 6040

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation

Division:

Lynn Teschendorf, Esq. Legal Counsel for the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For Gulf Oil Corporation:

Terry Cross, Esq. Gulf Oil Corporation Midland, Texas

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CHARLES KALTEYER

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MR. STAMETS: Call next Case 6040.

MS. TESCHENDORF: Case 6040. In the matter of Case 6040 being reopened pursuant to the provisions of Order Number R-552, which order created the North Teaque-Devonian Pool, Lea County, New Mexico, with a special gas/oil ratio limitation of 4000-to-1.

All interested parties may appear and show cause why the limiting gas/oil ratio for said pool should not revert to 2000-to-1.

MR. STAMETS: Call for appearances in this case.

MR. CROSS: Terry Cross, attorney for Gulf
Oil Corporation, Midland. Texas. I believe Mr. James
Sperling of Albuquerque has entered a letter of appearance
on behalf of Gulf.

MR. STAMETS: Yes. we do have that letter in the file.

Any other appearances in this case?

MR. CROSS: I have one witness.

MR. STAMETS: If you'll stand and be sworn,

please.

(Witness sworn.)

MR. STAMETS: You can proceed at any time.

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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. CROSS:

Q Would you please state your name, your employer, location and position?

A. I'm Charles F. Kalteyer, K-A-L-T-E-Y-E-R.

I'm employed by Gulf Oil in Midland, currently classified as Chief Proration Engineer, for the southwestern division.

Q Have you previously testified before the Oil Conservation Division?

A. Yes, I have.

MR. CROSS: Is the witness qualified?

MR. STAMETS: The witness is considered qual
ified.

Q. (Mr. Cross continuing.) Mr. Kalteyer, as you know, the OCD has reomened Case 6040 pursuant to the provisions of Order Number R-5552, which was entered October 25, 1977, and established a special gas/oil ratio limitation of 4000-to-1.

I'll ask you, what is Gulf's recommendation regarding the proper GOR for the North Teague-Devonian Pool at this time?

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A. Gulf's recommendation to the OCD is to continue the limiting gas/oil ratio in the North Teague-Devonian Pool at 4000 cubic feet of gas per barrel of oil produced, effective November 1, 1978.

Each proration unit in the North Teague-Devoniant Pool should produce only that volume of gas equivalent to 4000 multiplied by the top unit oil allowable.

Q Have you prepared an exhibit which sets out the structure of the North Teague-Devonian Pool?

A Yes, sir. our Exhibit Number One is a structure map contoured on the top of the eroded Devonian. This structure map is contoured on 50-foot interval and the scale of the map is one inch equal a thousand.

You will note that the current completions are colored in red. At the time of the original field rule hearing there were six completions in the field. There have been two additional completions and we propose the drilling of two more wells, C. E. LaMunyon's LaMunyon 46 and 47. located on the northeast flank of this northwest to southeast trending anticline.

We anticipate possibly three more locations if these two are satisfactory.

Gulf is the only operator with wells in this pool at this time.

Q. Would you basically describe the history of

the North Teague-Devonian Pool?

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In June of 1976 Gulf recompleted its C. E. LaMunvan No. 8 and it notentialed as a dry gas well with an open flow of 1,997 Mcf per day. When gas sales from this discovery were initiated in March, '77, the producing characteristics changed immediately. It began producing 37 degree API gravity crude and the gas/oil ratio dropped into the range of 2.000 to 3,000 cubic feet per barrel.

Then in Case 6040 on September 28th, 1977, Gulf requested the reclassification of the North Teague-Devonian Pool to that of an oil pool after the C. E. La Munyon had changed from gas to oil and after the development of five additional oil completions in the pool.

As a result of the hearing the OCD designated the pool as the North Teague-Devonian oil pool and adopted a limiting gas/oil ratio of 4000-to-1 cubic feet per barrel of liquid hydrocarbons for a period of one year, effective November 1, 1977.

- Now refer to your Exhibit Number Two. Would you please explain the significance of that exhibit?
- Gulf's Exhibit Number Two is a tabulation of completion and test data of the eight current completions in the pool. You'll note that we have the completion intervals listed both in measured depth and subsea depths. and then a list of -- series of production tests beginning with

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the potential. Then you will also note a wide range in the GORs reported in each well. They range from a low of 1147 up to 113,250.

We do not see a definite trend either upward or downward in the GORs of each well over the life of the field. The ratio has gone down some on three wells while it's gone up on four others.

- Q Would you explain please to the Examiner vour Exhibits Three and Four?
- A. Exhibit Number Three is a graphic presentation of the performance history of the North Teague-Devonian Pool, and Exhibit Four is a tabulation of the data plotted in Exhibit Three.

As of August of this year there were seven completions and with the completion of No. 45 LaMunyon, we now have eight completions in the pool.

The water production has been slightly erratic and it now stands at 48 percent.

The gas/oil ratio curve has been erratic also, and it's relatively stable for the last three months at 4,265-to-1.

The gas production in August amounted to approximately 59,000 Mcf. Oil production in August ϵ mounted to 13,840 barrels.

Q. Now refer to Exhibit Number Five. Would you

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please discuss that exhibit?

A. Exhibit Number Five is a combination grid and bar graph which depicts the subsurface completion intervals of each of the eight wells in the nool, as well as a bar graph depicting the gas/oil ratio tests for each well, which were presented on Exhibit Two.

Q And what conclusions do you draw from all this data?

A Well, the primary conclusion to be drawn is that there is no particular pattern to the gas/oil ratio of each well at the subsea depth.

You'll note that there are completions at shallow subsea depths with low gas/oil ratios. such as Well No. 8 and Well No. 12, and wells with deep subsea completions with high gas/oil ratios, such as No. 7 and No. 13.

And there's one of the wells, No. 45, that's completed through the entire section and it has a relatively low ratio, apparently due to the erratic nature of the deposition and the fact that this is an eroded Devonian the erratic denosition of oil and gas in the pool, it's obvious that it's not practical to rework these wells to obtain lower gas/oil ratios.

- Q. What are your recommendations to the Division?
- A. It's my recommendation that the Oil Conserva-

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tion Division set the limiting gas/oil ratio in the North Teague-Devonian Pool at 4000 cubic feet per barrel of oil produced and make that effective November 1st of 1978.

And that each proration unit produce only that volume of mas equivalent to 4000 multiplied by the top unit oil allowable for the pool.

Q Is this recommendation in the interest of the prevention of waste and the protection of correlative rights?

A. Yes, sir, I believe that the granting of the special GOR 4000-to-1 will be in the interest of prevention of waste and in all probability will maximize the recovery of hydrocarbons from the North Teague-Devonian Pool and not be in violation of correlative rights.

Q Were these exhibits prepared by you or at your direction?

A. Yes, sir, they were.

MR. CROSS: I move that Exhibits One through Five be admitted.

MR. STAMETS: These exhibits will be admitted.
MR. CROSS: That's all of my direct.

CROSS EXAMINATION

BY MR. STAMETS:

Mr. Kaltever, looking at your Exhibit Number

Two and just kind of plotting that data on Exhibit Number

One, it doesn't appear to me that these wells have too

much -- they don't appear to interfere with one another.

For example. Well No. 45 has a GOR of about 4000, but

down dip Well No. 11 has a GOR that's increased to 113,000.

And the gravities on Well No. 45, about 36.8, and the

liquid gravity on No. 11 is 48 to 54 degrees.

- A Yes, sir.
- Q What do you think that you've got here, a series of isolated stringers?
- A. Yes, sir, this is our interpretation, that there are a series of either stringers or lenses, and it's not a uniform reservoir where you could normally pick a gas-to-oil contact.

This is the basis of our request for the 4000-to-1 limit that we feel we cannot recomplete the wells to a particular low subsea depth and eliminate the high ratio problem.

- Q. And production to date in some cases is causing the gas/oil ratio to decline and in other cases it's caused it to go up.
 - A. Yes, sir.

MR. STAMETS: Any other questions of the witness? He may be excused.

Anything further in this case?

MR. CROSS: No, sir.

MR. STAMETS: We'll take the case under

advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, 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 if 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.

I do hereby certify that the foregoing to a complete en rome of the proceedings in , Examiner Oil Conservation Division

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BEFCRE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico 28 September 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation) for pool reclassification and a special GOR limit, Lea County, New Mexico.

CASE 6040

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

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:

Jeffrey G. Shrader, Esq. Gulf Oil Corporation

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Midland, Texas 79702

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$\underline{\textbf{I}} \ \underline{\textbf{N}} \ \underline{\textbf{D}} \ \underline{\textbf{E}} \ \underline{\textbf{X}}$

The Witness, Charles L. Kalteyer

Direct Examination by Mr. Shrader

Cross Examination by Mr. Nutter 10

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| Applicant | Exhibit | 1, | Structural Map | 10 |
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| Applicant | Exhibit | 2, | Cross Section | 10 |
| Applicant | Exhibit | 3, | Document | 10 |

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MR. NUTTER: We'll call Case Number 6040.

MS. TESCHENDORF: Case 6040. Application of Gulf Oil Corporation for pool reclassification and a special GOR limit, Lea County, New Mexico.

MR. SHRADER: Mr. Examiner, my name is Jeffrey
Shrader. I'm an attorney with Gulf Oil in Midland. I have
one witness. Mr. Sperling of Albuquerque has again filed an
entry of appearance by letter on behalf of Gulf and I would
ask that the record indicate that he's filed this letter.

MR. NUTTER: We have your appearance.

MR. SHPADER: Thank you. I have one witness, who is Mr. Kalteyer. Is the witness still sworn and qualified?

MR. NUTTER: He is.

CHARLES L. KALTEYER

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

DIRECT EXAMINATION

BY MR. SHRADER:

Q. Mr. Kalteyer, what is Gulf seeking in this application?

A. The reclassification of the North Teague-Devonian gas pool as an oil pool and the adoption of a 4000-to-1 gas/oil ratio ruling.

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Q. Do you have an exhibit which sets out the structural relation of the Teague-Devonian oil Pool and the North Teague-Devonian Gas Pool?

A Yes, sir, Gulf's Exhibit Number 1 is a structure map, contoured on top of the eroded Devonian horizon. You will note that the Teague-Devonian Oil Pool is located in the south half of Section 27 and in Sections 34 and 35, and is connected to the North Teague-Devonian Gas Pool, which is located in the north half of Section 27 and extends into the Sections 21, 22, and 28 by a narrow saddle, or structural low. We believe that the evidence will show that there's a permeability barrier which separates these two structural highs and consequently, we have two separate reservoirs.

Q What is the history of the Teague-Devonian Oil Pool?

A. The Teague-Devonian was discovered in January of '52 and was developed by five wells. At present there is only one producer in the field and that is the Carter Foundation E. C. Hill "D" Number 3, which is located in Unit D of Section 35, Township 23 South, Range 37 East, and circled in green on Exhibit 1.

During the month of May of this year the well produced at an average rate of 4 barrels of oil, 6 barrels of water, and 99 Mcf of gas on pump. The --

MR. NUTTER: What was that production again, please?

A. 4 oil, 6 water, and 99 Mcf of gas on pump.

MR. NUTTER: And that was the average daily production?

A Yes, sir.

The earliest bottom hole pressure for the Teague-Devonian Oil Pool was -- I was able to establish, was 1484 psi in September of '52. The latest pressures I found were taken in April of 1958; were taken on three wells and their average pressure was 805 psi on 48-hour build-up.

0. What is the history of the North Teague-Devonian
Gas Pool?

A. In June of '76 Gulf recompleted its C. E. LaMunyon Well Number 8 in the Devonian. This well is circled in red on Exhibit 1. On potential test the well produced dry gas with an open flow potential of 1,997 Mcf per day. The shutin bottom hole pressure was calculated to be 2,770 psi.

On the basis of the differences in pressures and producing characteristics between this well and the Teague-Devonian Oil Pool, the Commission, by Order R-5338, established the North Teague-Devonian Gas Pool, effective January 1, 1977.

Gas sales were initiated in March of 1977 for Well Number 8, and the producing characteristics changed almost immediately. The well began producing 37°API gravity crude and the gas/oil ratio dropped to a range of 2000 to 3000 cubic feet per barrel.

Q. What does your Exhibit Number 2 show?

A. Exhibit 2 is a cross section of logs across the Teague-Devonian Pool and the North Teague-Devonian Pool along a line of Section A-A' in a northwest to southeast to southeast direction. The correlation is good between the wells. You'll note that Gulf's E. C. Hill Number 2, which falls in between the two pools, had no shows in the Devonian. The Gulf C. E. LaMunyon Number 8, which was the discovery well for the North Teague-Devonian Pool is completed across the subsea interval minus-3969 to minus-4008. That line of section, for your convenience --

MR. NUTTER: Which well is that on this cross section?

A. Number 8, the line of section is shown on Exhibit 1 and it will be the second well from the left.

MR. NUTTER: Okay, that's the second one.

A. On latest tests on September 10th, Well Number 8 was producing at the rate of 193 barrels of oil per day, 606 Mcf per day, with the gas/oil ratio of 3140-to-1 and liquid gravity of 36.8

The Carter Foundation well, which is completed across the subsea interval minus-3966 to minus-4018, as we mentioned earlier, is producing approximately 4 barrels of oil per day and 6 barrels of water per day.

MR. NUTTER: And that is the far right well on the

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cross section, correct?

A. Yes, sir. The completion intervals of these two wells are virtually identical on a subsea datum basis.

Q Will you please discuss the completion data on Exhibit Number 3?

A Exhibit Number 3 is a tabulation of completion and well test data of the six wells on the LaMunyon lease which have now been reworked into the Devonian Pool. The completion intervals range from as shallow as 3969 in Well Number 8 and as deep as minus-4166 in Well Number 13.

The gas/oil ratios vary greatly among the wells with the low of 1833-to-1 in Well Number 12 to a high of 211,474 in Well Number 11. This attests to the irregular nature of the gas/oil ratio data. Well Number 12, with its low gas/oil ratio, is completed at a shallower depth than Number 11, which is a high gas/oil ratio. We do anticipate that Well Number 11 after it has been on regular production, will follow the pattern of Number 8 and the gas/oil ratio will come down. We have just this month gotten special permission to test these wells; Number 8 was the only one that had been on regular production since March. These other wells are -- have been placed on production, this month.

You'll note in the gravity column, the liquid gravity, with the exception of Number 11, fall in the range of from 36.8 to 39.6. The average gas/oil ratio for the five

completions, that is, excluding Number 11, five of the lower ratio wells, those tests indicate a production rate of 350 barrels of oil per day, 1,544 Mcf per day, with an average ratio of 4411-to-1; that's using the latest test data that we have.

MR. NUTTER: Mr. Kalteyer, the third well from the right there on your cross section, which I believe is this R. G. Number 2 --

A. Yes, sir.

MR. NUTTER: -- doesn't show a completion interval. Where is that well completed?

A. That well was dry. That was the Gulf Hill Number 2 that I mentioned. It's carried on the cross section as a Gulf well. It's in between the two fields. If you'll notice at the top we have the North Teague-Devonian Gas to include those first four wells and then there is one in the middle and then there is two in the Teague-Devonian Oil.

MR. NUTTER: Okay, so this is in that barrier area?

A. That is Well Number 2. Yes, sir, this is Gulf's

Well Number 2, which had no shows. It's now -- that lease
has been taken over by R.G.

MR. NUTTER: I see.

- Q. (Mr. Shrader continuing.) Mr. Kalteyer, what conclusions do you draw from all this data?
 - A. This leads us to the conclusion that the North

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Teague-Devonian Oil reservoir and not an associated gas reservoir.

And it is also obvious that the reservoir is separated from the Teague-Devonian pool. I would point out, also, on Table Three that we have two other bottom hole pressures besides the one run on Number 8. Number 11 had a calculated bottom hole pressure of 2902 psi and Number 13 had a pressure by actual bottom measurement of 2765, which is considerably above the last recorded pressure of 805 average taken in 1958 on three wells in the Teague-Devonian Oil Pool.

- Q. What are your recommendations to the Commission?
- A. We recommend that the North Teague-Devonian Gas
 Pool be reclassified as an oil pool, in order that the operators of this pool be afforded an opportunity to economically produce their just and equitable share of oil and gas in the pool, and for this purpose use his just and equitable share of the reservoir energy a limiting gas/oil ratio of 4000 cubic feet of gas per barrel of liquid hydrocarbons should be established for the pool. This 4000-to-l limit would provide a maximum gas allowable of 748 Mcf per day per well.
- Q. Are these recommendations in the interest of the prevention of waste and the protection of correlative rights?
 - A. Yes, sir, they are.
- Q. Were these exhibits prepared by you or under your direction?

direction?

A Yes, sir, they were.

MR. SHRADER: Mr. Examiner, I have no further questions at this time, and I would move that Gulf's Exhibits be entered as evidence in this case.

MR. NUTTER: How many exhibits were there, three?

MR. SHRADER: Three.

MR. NUTTER: Gulf's Exhibits 1 through 3 will be admitted in evidence.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Kalteyer, the application was for the reclassification of the North Teague-Devonian Gas Pool to an oil pool and for the consolidation of this pool with the Teague-Devonian Pool and the establishment of a GOR limit for the consolidated pools for 5000-to-1.

A. Yes, sir.

Q. Now, you haven't mentioned any consolidation here.

As a matter of fact, you showed a barrier.

A. No, sir, right. When we filed the application, we filed it as requested by our area office and after going through the data and checking the data out, that it was obvious that it should be classified as a separate reservoir from the Teague-Devonian Oil Pool and that's why we have --

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that's what our evidence has shown. Of course, if the Commission sees fit to reclassify it and put it in the Teague-Devonian Oil Pool, that would put it in the same allowable bracket and we would have no objection to that; however, we do feel that it is definitely a separate oil pool.

MR. NUTTER: Mr. Shrader, would you care to amend your ad or would you care to dismiss that portion of the application relating to the separate --

MR. SHRADER: Yes, sir, that would be --

MR. NUTTER: Or consolidation?

MR. SHRADER: -- fine with us, yes, sir.

MR. NUTTER: Okay.

Q (Mr. Nutter continuing.) Now, Mr. Kalteyer, I notice here on Exhibit 3 that these wells have two tests.

Now, is the top test in each case the test that was taken on completion of the wells?

A. Yes, sir, that's our earlier test data and I've tried to come up with our latest testing that has been done this month and you see some variation.

Q And only the Number 8 has had any producing history, is that it?

A. That's correct.

Q Now, presumably, on that initial test it made no liquids, so it's an infinite GOR there.

A. Yes, sir.

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Q. And now it's got a GOR of 3141.

A. Yes, sir.

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Q But the Number 11 appears to have gone just the opposite direction. It's gone from 41,000 GOR to a 211,000, is that it?

A. Yes, sir. I believe -- whether I have any more data on that or not, that just came in yesterday. No, sir, I have no additional data on that.

Q Well, with the limited reservoir data we've got, it appears impossible to correlate GOR's with structural position of the well on this northern anticline here.

A. That's correct, yes, sir.

Q Have any analyses been run on the fluid to determine the solution ratio of the liquids here?

A No, sir, they have not; no, recombined sampling has not.

Q Apparently this Number 8, although it's lower on the structure, was completely void of liquid at that time.

The Number 10, which is on the top of the structure, produced 96 barrels of liquids on its original test.

A. Yes, sir.

Q What was the reason for the delay in putting these other wells on production, Mr. Kalteyer?

A. As far as we hadn't -- we did not have a connection for these other wells. 8 and 11 produce into a high pressure

system to El Paso, and we have now equipped these other wells and decided to -- that we should test these to establish it.

We originally, of course, thought it was a gas reservoir and had anticipated gas completions, and then with the change in production of Number 8, we had to re-evaluate our wells.

We've just now run this series of tests and had to get special permission from the Commission since it was a gas reservoir to initiate these tests.

Q It appears almost as though the application is premature. We have no producing history on any except one well and the characteristics are changing so rapidly it's difficult to say what it's going to be tomorrow; what any one of these wells will be tomorrow.

A. I think the liquid gravities are quite significant. They are consistent in that they're in the upper thirties, rather than where we normally expect a condensate to be at forty-five or greater.

Q. Well, is there any difference in the appearance of the liquids produced from the Number 11 and the liquids produced from the other wells? There's a big difference in gravity.

A. Yes, sir.

Q. Is it a condensate coming out of that well?

A. I have -- I don't have that data with me; I'd have to advise you on that as to color.

| Q. It's the only one that's out of 1 | line as far - | - |
|--------------------------------------|---------------|---|
|--------------------------------------|---------------|---|

A. Yes, sir.

- Q -- as gravities are concerned.
- A. Yes, sir.
- Q. And, again, it's not a real high well on the structure.

A No, sir.

MR. NUTTER: Are there any further questions of Mr. Kalteyer? The portion of the case relating to the consolidation of this pool with the Teague-Devonian Pool will be dismissed and we'll take the rest -- does anyone have anything to offer with respect to Case Number 6040? We'll take the case under advisement.

(Hearing concluded.)

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REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, 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.

Sally Walton Boyd, C. S. R.

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LAW OFFICES

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(1902-1977)

October 3, 1978

GEORGE J. HOPKINS
PAUL M. FISH
JUDY A. FRY
MARK B. THOMPSON XI
JEFFREY W. LOUBET
RUTH M. SCHIFANI
THOMAS L. JOHNSON
LYNN M. SLADE
ALAN KONRAD
ZACHARY L. MCCORMICK

Mr. Joe D. Ramey Secretary-Director Oil Conservation Division Department of Energy & Minerals P. O. Box 2088 Santa Fe, New Mexico 87501

Re: Case No. 6040 Reopened

North Teague-Devonian Pool Lea County, New Mexico

Dear Mr. Ramey:

JAMES E, SPERLING

GEORGE T. HARRIS, JR.

ALLEN C. DEWEY, JR

FRANK H ALLEN JR.

KENNETH L. HARRIGAN

JOE R. G. FULCHER ARTHUR D. MELENDRES

JOHN M. COONEY

PETER J ADANG

DALE W. EK DENNIS J. FALK

LELAND S. SEDBERRY, JR.

We are informed that the Oil Conservation Division has reopened and readvertised Case No. 6040 pursuant to the provisions of Order No. R-5552, entered October 25, 1977. This letter will serve as an entry of appearance of our firm on behalf of Gulf Oil Corporation. Gulf will be represented at the hearing, which we understand is set for October 11, 1978, by Mr. Terry I. Cross, of Gulf's Law Department, in Midland, Texas. Our firm's entry of appearance is, of course, as New Mexico counsel for Gulf in the matter.

Very truly yours,

STATE OF

lames F. Sperling

JES/jev

cc: Mr. Morgan L. Copeland

Mr. Terry I. Cross



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

JERRY APODACA

NICK FRANKLIN SECRETARY

October 25, 1978

CASE NO.

6040

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 1505) 827-2434

| ur. ferry cross | | ONDER 110. K-3332-8 |
|-----------------|---|--------------------------------|
| Gulf Oil Corpor | ation | |
| P. O. Box 1150 | | |
| Midland, Texas | 79702 | Applicant: |
| Hidiand, lexas | 13142 | whhrreauc. |
| | | |
| | | |
| | | Gulf Oil Corporation |
| | | our our our portacion |
| | | |
| Dear Sir: | | |
| | | |
| Enclosed herew | ith are two | copies of the above-referenced |
| | | ntered in the subject case. |
| praterou order | recentry e | ntered in the subject case. |
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| Yours very tru | (المراد | |
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| 10016 | W - | ⊸ ∙ |
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| 100 010 | | |
| JOE D. RAMEY | | • |
| Director | | |
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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. 6040 Order No. R-5552-A

IN THE MATTER OF CASE 6040 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-5552, WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE NORTH TEAGUE-DEVONIAN POOL, LEA COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR A 4000 TO 1 GAS-OIL RATIO LIMITATION.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 11, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 20th day of October, 1978, 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 by Order No. R-5552, dated October 25, 1977, temporary special rules and regulations were promulgated for the North Teague-Devonian Pool, Lea County, New Mexico, establishing a temporary gas-oil ratio limitation of 4000 to 1.
- (3) That pursuant to the provisions of Order No. R-5552, this case was reopened to allow the operators in the subject pool to appear and show cause why the limiting gas-oil ratio of the North Teague-Devonian Pool should not revert to 2000 to 1.
- (4) That the evidence establishes that the limiting gas-oil ratio of the North Teague-Devonian Pool should remain at 4000 to 1.

-2-Case No. 6040 Order No. R-5552-A

- (5) That the Special Rules and Regulations promulgated by Order No. R-5552 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.
- (6) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-5552 should be continued in full force and effect until further order of the Division.

IT IS THEREFORE ORDERED:

- (1) That the Special Rules and Regulations governing the North Teague-Devonian Pool, Lea County, New Mexico, promulgated by Order No. R-5552, are hereby continued in full force and effect until further order of the Division.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. RAMEY

Director

Dockets Nos. 34-78 and 35-78 are tentatively set for hearing on October 25 and November 8, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 11, 1978

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 6338: Application of Charles C. Loveless for an unorthodox well location, Eddy County, New Mexico.

Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 660 feet from the South line and 1980 feet from the East line of Section 23, Township 17

South, Range 26 East, Kennedy Farms Field, Eddy County, New Mexico, the E/2 of said Section 23 to be dedicated to the well.

CASE 6040: (Reopened and Readvertised)

In the matter of Case 6040 being reopened pursuant to the provisions of Order No. R-5552 which order created the North Teague-Devonian Pool, Lea County, New Mexico, with a special gas-oil ratio limitation of 4000 to 1. All interested parties may appear and show cause why the limiting gas-oil ratio for said pool should not revert to 2000 to 1.

Application of Amoco Production 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 S/2 of Section 22, 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 6321: (Continued and Readvertised)

Application of Texas 0il & Gas Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Shugart State Com. Well No. 1 to be drilled 714 feet from the South line and 2062 feet from the West line of Section 16, Township 15 South, Range 31 East, Eddy County, New Mexico, the W/2 of said Section 16 to be dedicated to the well.

CASE 6320: (Continued and Readvertised)

Application of Texas 0il & Gas Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Coquina Federal Com Well No. 1 to be drilled 710 feet from the North line and 2330 feet from the West line of Section 32, Township 18 South, Range 27 East, Eddy County, New Mexico, the W/2 of said Section 32 to be dedicated to the well.

CASE 6340: Application of Supron Energy Corporation for downhole commingling, Eddy County, New Mexico.

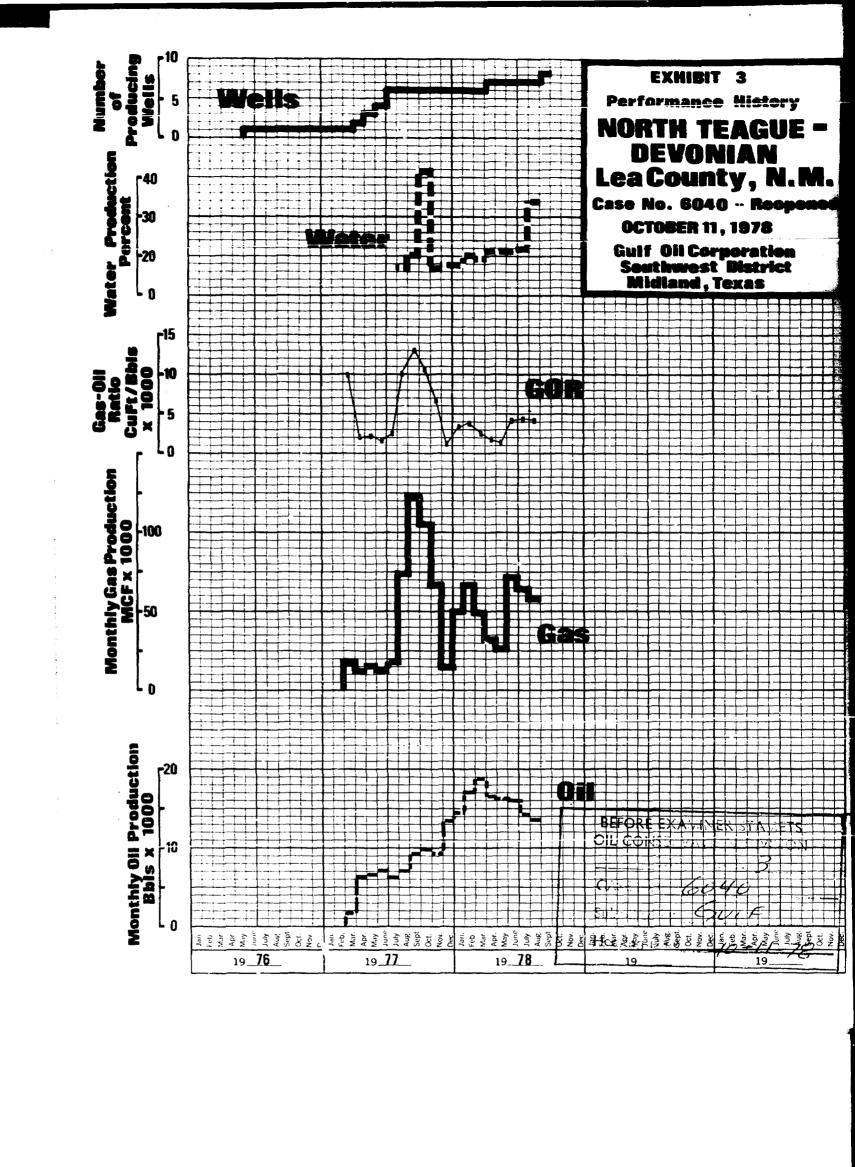
Applicant, in the above-styled cause, seeks approval for the downhole commingling of Atoka and Strawn production in the wellbore of its Shelby Federal Well No. 1 located in the NE/4 of Section 13, Town-ship 22 South, Range 24 East, Eddy County, New Mexico.

CASE 6341: Application of Supron Energy Corporation for dual completions and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the dual completion of its Jicarilla A Well No. 8 located in the NW/4 of Section 23; its Jicarilla E Well No. 7 located in the SE/4 of Section 15; and its Jicarilla E Well No. 8 located in the NW/4 of Section 15, all in Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Mesaverde formation through a separate string of tubing and to commingle Gallup and Dakota production in the wellbores of said wells.

CASE 6342: Application of Supron Energy Corporation 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 Jicarilla J Well No. 10 located in the SE/4 of Section 26, Township 26 North, Range 5 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Tocito and Dakota production in the wellbore of said well.

CASE 6343: Application of Supron Energy Corporation 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 Jicarilla H Well No. 8 located in the SE/4 of Section 11, Township 26 North, Range 4 West, Rio Arriba County, New Mexico, to produce gas from the Pictured Cliffs formation through a separate string of tubing and to commingle Gallup and Dakota production in the wellbore of said well.

| | | | | | • | | | | | |
|---|--|-------------------------------|-------------------------------|--|--|-------------------------------|--|---|-----------------------------------|--|
| | 45 | 16 | 13 | 12 | 11 | 10 | 00 | 7 | TTEM | CIE BE |
| | 7,247'-50' 7,301'-04' 7,348'-51' 7,376'-79' 7,424'-27' (-3,961'-64') (-4,015'-18'); (-4,062'-65'); | 7,452'-56' (-4,169'-73') | 7,438'-50' (-4,154'-66') | 7,326'-38', 7,364'-68' 3,299' GL (-4,027'-39', -4,065'-69') | 7,373'-78', 7,421'-27' 3,292' (-4,081'-86',-4,129'-35') | 7,434'-44' (-4,134'-44') | 7,256'-61, 7,290'-95' (-3,969'-74',-4,003'-08') | 7,398' - 7,408' (-4,094'- 4,104') | COMPLETION INTERVAL | BEFORE EXAMINER STANETS THE CONSENSATION CONTROL COMO COM |
| | 3,286' | 3,283 | 3,284' GL | 3,299' | 3,292' | 3,300' | 3,287' DF | 3,304' GL | ELEVAT ION | |
| | GL -4,090'- | 45 | GĽ. | GL | GL T | GT. | DF | CL | TION | |
| | 6' GL 8-05-78 123 9-12-78 87 (-4,090'-93'); (-4,138'-41') | 4-17-78 4-30-78 6-06-78 | 6-09-77 9-05-77 8-19-78 | 7-23-77 9-26-77 4-24-78 | 4-29-77 9-03-77 5-08-78 | 6-04-77 9-11-77 4-22-78 | 6-07-76 9-10-77 4-19-78 10-05-78 | 7-14-77 9-14-77 4-19-78 10-03-78 | DATE | z |
| | 123 87 88'-41') | 40 30 114 | 35 9 10 | 60 184 | 78 19 12 | 96 76 22 | dry 193 146 76 | 5 12 223 211 | OIL (BBLS.) | COMPLETION A. C. E. LA M NORTH TEAGUE - LEA COUNTY, |
| , | 224 125 | 226 155 3 49 | юυω | 404 | 044 | 008 | 0 1 1 1 | 20 | WATER (BBLS.) | ANI ANI |
| | 322 | 0 236 223 | 110 207 357 | 110 211 | 3,255 4,018 1,359 | 660 404 192 | 1,316 606 145 376 | 240 217 365 332 | GAS (MOF) | D TEST DATA NYON LEASE DEVONIAN POOL |
| | 3,701 | 7,867 1,956 | 3,143 23,000 35,700 | 1,833 1,147 | 41,935 211,474 113,250 | 6,875 5,316 8,727 | 3,140 993 4,947 | 48,000 18,083 1,637 1,573 | GAS-OIL RATIO (CU.FT./BBL.) | |
| | 36.1 | 36.9 | 39 1 1 • 1 1 1 | 39.6 37.1 | 54.5 48.3 | 36.9 36.9 37.1 | 36.8 | 38.9 37.1 37.1 | LIQUID GRAVITY (OAPI) | |
| | ! ! | [| , ; ; ; ; | ! ! ! | 6,224 | ; ; ; ! ; ; ! ; ! | 1,997 | t i i i i i i i i i i i i i i i i i i i | OPEN FLOW POTENTIAL (MCFPD) | EXHIBIT NO. CASE NO. 6. DATE: Cct. GULF OIL CO. |
| | 1 1 1 1 1 1 | 1 1 1 1 1 1 1 1 1 | 2,765' @ 7,444' Bomb. | ; ; ; | 2,909' @ 7,400' Calc. | 1 1 1 5 1 1 7 1 1 | 2,770' @ 7,260' Calc. | 1 1 1 1 1 1 1 1 1 1 1 1 | BOTTOM-HOLE PRESSURE (PSI) | EXHIBIT NO. 2 CASE NO. 6,040 - Responded DATE: Cetober 11, 1978 GULF OIL CORPORATION |

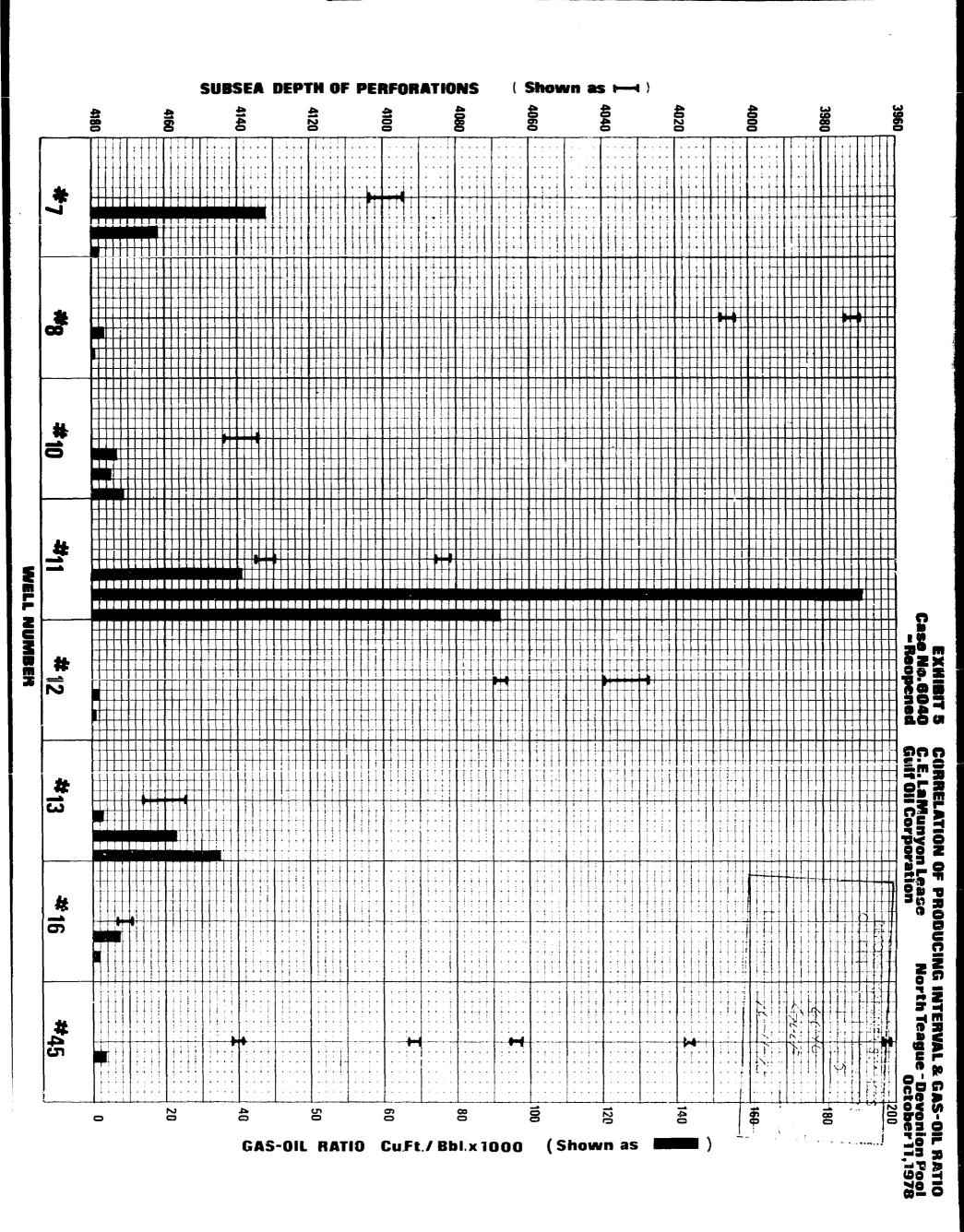


4 6040 Civit

PERFORMANCE HISTORY NORTH TEAGUE DEVONIAN POOL LEA COUNTY, NEW MEXICO GULF OIL CORPORATION

| MONTH AND YEAR 1976 | OIL (BARRELS) | GAS (MCF) | GAS-OIL RATIO (CU.FT./BBL.) | WATER (BARRELS) | WATER (7.) | NO. OF |
|---------------------|------------------|----------------|-----------------------------------|--------------------|---------------|---------|
| 1770 | | | | • | | |
| June | Shut-In | | ~ ~ ~ | | | - |
| July | 11 | | | | | - |
| August | 11 | | | | | - |
| September | 11 | | | | - | - |
| October | 11 | | | | | - |
| November | 11 | | | | | • |
| December | 11 * | | | ~ = ∞ | | • |
| 1977 | | | | | | |
| January | Shut-In | | m == 00 | | | <u></u> |
| February | 11 | | | | | - |
| March | 1,871 | 18,556 | 9,918 | | ~= | 1 |
| Apri1 | 6,339 | 13,298 | 2,098 | | | 1 |
| May | 6,719 | 14,455 | 2,151 | | | 1 |
| June | 7,085 | 14,122 | 1,993 | | | 2 2 |
| July | 6,484 | 17,034 | 2,627 | | | 2 |
| August | 7,198 | 72,838 | 10,119 | 1,384 | 16 | 6 |
| September | 9,324 | 122,029 | 13,088 | 1,850 | 20 | 6 |
| October | 9,879 | 105,423 | 10,671 | 16,570 | 63 | 6 |
| November | 9,613 | 66,163 | 6,883 | 1,868 | 16 | 6 |
| December | 13,486 | 14,392 | 1,067 | 2,838 | | 6 |
| TOTAL | 77,988 | 458,310 | 5,877 | 24,510 | | |
| 1978 | | | | | | |
| January | 14,643 | 50,100 | 3,421 | 3,038 | 17 | 6 |
| February | 17,143 | 66 ,796 | 3,896 | 4,038 | 19 | 6 |
| March | 18,944 | 49,099 | 2,592 | 4,088 | 18 | 6 |
| April | 16,512 | 31,831 | 1,928 | 4,388 | 21 | 7 |
| May | 16,264 | 26,616 | 1,636 | 4,390 | 21 | 7 |
| June | 16,181 | 71,800 | 4,437 | 4,390 | 21 | 7 |
| *July | 14,282 | 65,085 | 4,557 | 4,038 | 22 | 7 |
| *August | 13,840 | 59,028 | 4,265 | 12,640 | 48 | 7 |
| CUMULATIVE | 205,797 | 878,665 | 4,270 | 65,520 | (24) | |

^{*} from C-115



OIL CONSERVATION COMMISSION

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

87501

DIRECTOR
JOE D. RAMEY

Mr. Jeffrey G. Shrader

Other

LAND COMMISSIONER
PHIL R. LUCERO
October 26, 1977



STATE GEOLOGIST
EMERY C. ARNOLD

| Attorney Gulf Oil Corporation P. O. Box 1150 Midland, Texas 79701 | Applicant: | | | | |
|---|---|--|--|--|--|
| | Gulf Oil Corporation | | | | |
| Dear Sir: | | | | | |
| Enclosed herewith are two co Commission order recently en | pies of the above-referenced tered 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 | | | | | |

Re: CASE NO.

ORDER NO. R-5552

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. 6040 Order No. R-5552

NOMENCLATURE

APPLICATION OF GULF OIL CORPORATION FOR POOL RECLASSIFICA-TION AND A SPECIAL GOR LIMIT, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 28, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of October, 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, Gulf Oil Corporation, is the owner and operator of several wells in the North Teague-Devonian Gas Pool, Lea County, New Mexico, and as such seeks the reclassification of said pool as an oil pool and the establishment of a special gas-oil ratio limitation of not more than 5000 to one for said pool.
- (3) That said pool was discovered by applicant's C. E. La Munyon Well No. 8, located in Unit M of Section 22, Township 23 South, Range 37 East, NMPM, on June 7, 1976.
- (4) That production tests at the time of completion of said well indicated that the well was a gas well and that it was completed in a newly discovered gas pool, whereupon the Commission created and defined the North Teague-Devonian Gas Pool by Order No. R-5338, effective January 1, 1977.

-2-Case No. 6040 Order No. R-5552

- (5) That subsequent to the creation and definition of said North Teague-Devonian Gas Pool, additional drilling and testing indicates that said pool is in fact an oil pool, and that said pool should be reclassified as an oil pool and designated the North Teague-Devonian Pool.
- (6) That an apparent impermeability barrier extends in an East-West direction at the South end of the North Teague-Devonian Pool, effectively separating said pool from the Teague-Devonian Pool to the South.
- (7) That that portion of the application requesting consolidation of said pool with the Teague-Devonian Pool in Sections 27, 34 and 35 of Township 23 South, Range 37 East, should be dismissed.
- (8) That the producing characteristics of the wells completed in the North Teague-Devonian Pool, insofar as they are presently known, justify the establishment of a gas-oil ratio of 4,000 to 1 on a temporary basis.
- (9) That the vertical limits of the North Teague-Devonian Pool should be the Devonian formation and the horizontal limits should comprise the following lands:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM Section 22: SW/4 Section 27: NW/4

- (10) That Paragraphs (b) of Commission Order No. R=5338 and (u) of Order No. R-5416, which created and defined, and extended, the North Teague-Devonian Gas Fool, should be superseded.
- (11) That this case should be reopened at an examiner hearing in October, 1978, to permit the operators in the subject pool to appear and show cause why the limiting gas-oil ratio for the pool should not revert to 2000 to one.

IT IS THEREFORE ORDERED:

(1) That a new pool, classified as an oil pool for Devonian production, be and the same is hereby created and designated the North Teague-Devonian Pool comprising the following described lands in Lea County, New Mexico:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM Section 22: SW/4 Section 27: NW/4

-3-Case No. 6040 Order No. R-5552

- (2) That the depth bracket allowable for the North Teague-Devonian Pool shall be 187 barrels of oil per day.
- (3) That the North Teague-Devonian Gas Pool, as heretofore created, defined, and classified, is hereby abolished and Paragraph (b) of Commission Order No. R-5338 and Paragraph (u) of Commission Order No. R-5417 are hereby superseded.
- (4) That effective November 1, 1977, for a period of one year, the limiting gas-oil ratio for the North Teague-Devonian Pool shall be 4,000 cubic feet of gas for each barrel of liquid hydrocarbons produced; that, effective November 1, 1977, each proration unit in the North Teague-Devonian Pool shall produce only that volume of gas equivalent to 4,000 multiplied by the top unit allowable for the pool.
- (5) That this case shall be reopened at an examiner hearing in October, 1978, at which time the operators in the subject pool may appear and show cause why the limiting gas-oil ratio for the pool should not revert to 2000 cubic feet of gas per barrel.
- (6) That that portion of the application requesting consolidation of said pool with the Teague-Devonian Pool in Sections 27, 34 and 35 of Township 23 South, Range 37 East, is hereby dismissed.
- (7) 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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD Member

JOE D. MANEY, Member & Secretary

SEAL dr/

CONPLETION DATA
C. E. LAMUNYON LEASE
NORTH TEAGUE DEVONIAN POOL
LEA COUNTY, NEW MEXICO

EXHIBIT 3
CASE NO. 6040
DATE: September 28, 1977

| | | 13 | | 12 | | 11 | | 10 | | œ | | 7 | NO. |
|--|------------|-------------------|--|------------|----------------------|--------------------|------------|---------|----------------------|--------------------|-----------------|-------------|---------------------------------|
| | (-4154-00) | 7438-50 | (************************************* | | (-4001-00, -4123-33) | 7373-78, 7421-27 | (+4-4614-) | 7434-44 | (-3703-74, -4003-00) | | (+0.54 - +1.04) | 7398 - 7408 | COMPLETION INTERVAL |
| | | 3284 GL | | 3299 GL | | 3292 GL | | 3300 GL | | 3287 DF | • | 3304 GL | ELEVATION |
| | 9-05-77 | 6-09-77 | 9-26-77 | 7-23-77 | 9-03-77 | 4-29-77 | 9-11-77 | 6-04-77 | 9-10-77 | 6-07-76 | 9-14-77 | 7-14-77 | DATE |
| | 9 | 35 | Waiting | 60 | 19 | 78 | 76 | 96 | 1.93 | Dry | 1.2 | \r | OIL (BNLS.) |
| | G | ω | ng on pumpi | ! | <u> </u> | 0 | 0 | ထ | | l ì | 2 | : | WATER (BBLS.) |
| | 207 | 110 | on pumping unit. | 110 | 4,018 | 3,255 | 404 | 660 | 606 | 1,316 | 217 | 240 | GAS (MCF) |
| | 23,000 | 3,143 | | 1,833 | 211,474 | 41,935 | 5,316 | 6,875 | 3,140 | | 18,083 | 48,000 | GAS-OIL RATIO CU.FT./BBL. |
| - Transmission and Control of the Co | ; | 39.1 | | 39.6 | 48.3 | 54.5 | 36.9 | 36.9 | 36.8 | 1 | | 38.9 | LIQUID GRAVITY (OAPI) |
| | | 1 | | , 1 , 1 | l I | 6224 | | 1 | | 1997 | | } | OPEN FLOW POTENTIAL (NICEPD) |
| | | 2765 @ 7444' Bomb | | | | 2909 @ 7400' Calc. | | | | 2770 @ 7260' Calc. | | | BOTTON HOLE PRESSURE |

6000

- CASE 6038: Application of W. Ridley Wheeler Estate for a waterflood project, Lea County, New Mexico.

 Applicant, in the above-styled cause, seeks authority to institute a waterflood project in an undesignated San Andres reservoir by the injection of water into the San Andres formation thru the open-hole interval from 4800 feet to 4870 feet in its Markham Well No. 2, to be drilled 1980 feet from the South line and 25 feet from the East line of Section 28, Township 9 South, Range 35 East, Lea County, New Mexico.
- CASE 6039: Application of Gulf Oil Corporation for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of three Drinkard Pool wells on its Central Drinkard Unit in Township 21 South, Range 37 East, Lea County, New Mexico, as follows:

Well No. 419, surface location 1631 feet from the South line and 260 feet from the West line of Section 28, to be bottomed approximately 1335 feet from South line and 15 feet from East line of Section 29; Well No. 421, surface location 1465 feet from North line and 1056 feet from East line of Section 32, to be bottomed approximately 1305 feet from North and East lines of Section 32; and Well No. 422, surface location 325 feet from North line and 1000 feet from West line of Section 33, to be bottomed approximately 1305 feet from North line and 1335 feet from West line of Section 33.

- CASE 6040: Application of Gulf 0il Corporation for pool reclassification and a special GOR limit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the reclassification of the North Teague-Devonian Gas Pool in Sections 22 and 27, Township 23 South, Range 37 East, Lea County, New Mexico, as an oil pool and the consolidation of said pool with the Teague-Devonian Oil Peol in Sections 27, 34, and 35 of said Township. Applicant further requests a special gas-oil ratio limit for said Teague-Devonian Oil Pool of not more than 5000 to one.
- CASE 6041: Application of Gulf Oil Corporation for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Harry Leonard Well No. 12 located in Unit P of Section 22, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to a previously approved 480-acre multiple well non-standard proration unit.
- CASE 6042: Application of Gulf Oil Corporation for a non-standard proration unit, simultaneous dedication, and unolthodox locations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 388.51-acre non-standard gas proration unit comprising the NW/4 and E/2 SW/4 of Section 6, and the NW/4 of Section 7, both in Township 22 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to applicant's H. T. Mattern Wells Nos. 6 and 3, at unorthodox locations in Unit N of Section 6 and Unit F of Section 7, respectively.
- <u>VASE 6943:</u>
 Application of V-F Petroleum Inc., for an unorthodox oil well location, Roosevelt County, New Mexico.
 Applicant, in the above-styled cause, seeks approval for an unorthodox oil well location 330 feet
 from the South line and 2310 feet from the East line of Section 29, Township 8 South, Range 38
 East, North Sawyer-Devonian Pool, Roosevelt County, New Mexico.
- Application of Orla Petco for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to 3500 feet underlying the NE/4 NE/4 of Section 1, Township 23 South, Range 27 East, and also the NW/4 NE/4 of said Section, Eddy 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 costs thereof, as wo 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 6045: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the NW/4 of Section 12, Township 21 South, Range 36 East, Eumont Gas Pool, 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 suplicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6046: Application of Belco Petroleum Corporation for compulsory pooling, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying all of Section 3, Township 22 South, Range 25 East, Catclaw Draw-Morrow Gas Pool, 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 ellocation 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.

BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF GULF OIL CORPORATION TO RE-CLASSIFY NORTH TEAGUE-DEVONIAN GAS POOL TO OIL AND COMBINE WITH TEAGUE DEVONIAN OIL POOL, LEA COUNTY, NEW MEXICO

Case No. 6040

ENTRY OF APPEARANCE

The undersigned, Modrall, Sperling, Roehl, Harris & Sisk, of Albuquerque, New Mexico, hereby enter their appearance for the applicant, Gulf Oil Corporation, with its house counsel of Midland, Texas.

MODRALL SPERLING ROEHL HARKIS & SISK

Attorneys for

Gulf Oil Corporation

O. Box 2168

Albuquerque, New Mexico 87103 Telephone: (505) 243-4511

Gulf Energy and Minerals Company-USSEP -6 10

SOUTHWEST DIVISION

September 2, 1977

The CORP TRACE P. O. Drawer 1160 Midland, TX 79702

J. L. Huitt vice-PRESIDENT C. E. Fields COMPTROLLER

R. E. Galvin GENERAL MANAGER PRODUCTION
2. FORD
GENERAL MANAGER EXPLORATION

> New Mexico Oil Conservation Commission (3) Post Office Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey

RE: Reclassify North Teague-Devonian Gas Pool to Oil and Combine with Teague Devonian Oil Pool, Lea County, New Mexico.

Gentlemen:

Gulf Oil Corporation respectfully requests that a hearing be scheduled on your Examiner's Hearing Docket of September 28, 1977 to consider our application to reclassify the North Teague-Devonian Gas Pool to Oil and Combine it with the Teague Devonian Oil Pool, Lea County, New Mexico. The North Teague-Devonian Gas Pool consisting of the S/2 Section 22, N/2, N/2 S/2 Section 27 T-23-S, R-37-E is to be combined with the Teague Devonian Oil Pool consisting of the S/2 S/2 Section 27, Section 34 and Section 35 T-23-S, R-37-E.

Gulf will further request the adoption of a Gas-Oil Ratio Rule in exception to Statewide Rule 506.

J. M. THACKER Manager - Operations

CFK:sdn

cc: J. T. Sexton Post Office Box 1980 Hobbs, New Mexico 88240



A DIVISION OF GULF OIL CORPORATION

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:

APPLICATION OF GULF OIL CASE NO. 6040
CORPORATION FOR POOL RECLASSIFICATION
AND A SPECIAL GOR LIMIT, LEA COUNTY, Order No. R- 5552
NEW MEXICO.

NOMENCLATURE

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ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 28

19 77 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of October , 19 77 , 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, Gulf Oil Corporation, is the owner and operator of several wells in the North Teague-Devonian Gas Pool, Lea County, New Mexico, and as such seeks the reclassification of said pool as an oil pool and the establishment of a special gase-oil take limitation of more than 5000 to one for said pool.

-2-Case No. 6040 Order No. R-

- (3) That said pool was discovered by applicant's C. E.

 La Munyon Well No. 8, located in Unit M of Section 22, Township

 23 South, Range 37 East, NMPM, on June 7, 1976.
- (4) That production tests at the time of completion of said well indicated that said well was a gas well and that it was completed in a newly discovered gas pool, whereupon the Commission created and efined the North Teague-Devonian Gas Pool by Order No. R-5338, effective January 1, 1977.
- (5) That subsequent to the creation and definition of said North Teague-Devonian Gas Pool, additional drilling and testing indicates that said pool is in fact an oil pool, and that said pool should be reclassified as an oil pool and designated the North Teague-Devonian Pool.
- (6) That an apparent impermeability barrier extends in an East-West direction at the South end of the North Teague-Devonian Pool, effectively separating said pool from the Teague-Devonian Pool to the South.

(1) That that portion of the application requesting consolidation of said sood with the Tague-Devorcion and food in Sections 27,34 and 35 of T235, R37 E, should be dismissed.

(9) That the vertical limits of the North Teague-Devonian Pool should be the Devonian formation and the horizontal limits should comprise the following lands:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM Section 22: SW/4 Section 27: NW/4

1

(u) of Order No. R-5416, which created and defined, and extended, the North Teague-Devonian Gas Pool, should be superseded.

(II) IT IS THEREFORE ORDERED:

(1) That a new pool, classified as an oil pool for Devonian production, be and the same is hereby created and designated the North Teague-Devonian Pool comprising the following described lands in Lea County, New Mexico:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM Section 22: SW/4 Section 27: NW/4

- (2) That the depth bracket allowable for the North Teague—
 Devonian Pool shall be 187 barrels of oil per day.
- (3) That the North Teague-Devonian Gas Pool, as heretofore created, defined, and classified, is hereby <u>abolished</u> and Paragraph (b) of Commission Order No. R-5338 and Paragraph (u) of Commission Order No. R-5417 are hereby superseded.
- (4) That effective November 1, 1977, for a period of one year, the limiting gas-oil ratio for the North Teague-Devonian Pool shall be 4,000 cubic feet of gas for each barrel of liquid hydrocarbons produced; that, effective November 1, 1977, each proration unit in the North Teague-Devonian Pool shall produce only that volume of gas equivalent to 4,000 multiplied by the top unit allowable for the pool.
- (5) That this case shall be reopened at an examiner hearing in October, 1978, at which time the operators in the subject pool may appear and show cause why the limiting gas-oil ratio for the pool should not revert to 2000 cubic feet of gas per barrel.
- (7) 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 ENERGY AND MUNEPALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING

| | CASE NO. 6040 |
|-----|---|
| | Order No. R-5552-A |
| I | IN THE MATTER OF CASE 60 40 BEING REOPENED PURSUANT TO THE PROVISIONS OF ORDER NO. R-5552 WHICH ORDER ESTABLISHED SPECIAL RULES AND REGULATIONS FOR THE North Tease - Deversion CAS POOL, Lea COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR |
| 1 | PROPUNION UNITS. A 4000 TO 1 |
| 4 | GRS-OIL RATTO LIMITATION ORDER OF THE DIVISION |
| 7 | BY THE DIVISION: |
| = | This cause came on for hearing at 9 a.m. on October |
| | |
| ٤ | 1978, at Santa Fe, New Mexico, before Examiner RLS |
| _ | NOW, on thisday of, 19, the Div |
| | Director, having considered the testimony, the record, and the |
| | recommendations of the Examiner, and being fully advised in t |
| I | premises, |
| | FINDS: |
| | (1) That due public notice having been given as require |
| 1 | law, the Division has jurisdiction of this cause and the subj |
| ľ | matter thereof. |
| | (2) That by Order No. R-5552, dated October 2 |
| | 19217 temporary special rules and regulations were promulg |
| : | for the North Teaque-Devonion @ Pool, Lea |
| (| for the North Teague - Devonion Pool, Lea County, New Mexico, establishing temporary acre spacin gas-oil ratio limitation of 4000 to 1. |
| | (3) That pursuant to the provisions of Order No. 555 |
| . 1 | this case was reopened to allow the operators in the subject //m. fing 905-0. / ratio of the North Teague - Devanie to appear and show cause why the North Teague - Devanie fas Pool should not be developed on |
| | revert to 2000 to 1. |

- (5) That the Special Rules and Regulations promulgated by Order No. <u>\$\int_{-65552}\$</u> have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the gas in the pool.
- the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. \$\textit{R-5552}\$ should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

- (1) That the Special Rules and Regulations governing the North Teograe Devonion Gas Pool, Lea County, New Mexico, promulgated by Order No. R-5552, are hereby continued in full force and effect until further order of the Division.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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