

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 10, 1960

EXAMINER HEARING

IN THE MATTER OF:)

Application of Gulf Oil Corporation for an)
amendment of Order No. R-1605. Applicant,)
in the above-styled cause, seeks an amend-)
ment of Order No. R-1605 to permit the in-)
clusion of the Lea State "AR" Lease, con-)
sisting of the S/2 of Section 33 and the)
SW/4 of Section 34, Township 19 South,)
Range 35 East, Pearl-Queen Pool, Lea County,)
New Mexico, in the commingling authorization)
granted by said order. Applicant further)
seeks an amendment of said order to provide)
that the automatic custody transfer system)
therein authorized be permitted to handle)
said commingled production.)

Case 2044

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

MR. UTZ: Case 2044.

MR. PAYNE: Application of Gulf Oil Corporation for an
amendment of Order No. R-1605. Applicant, in the above-styled
cause, seeks an amendment of Order No. R-1605 to permit the inclu-
sion of the Lea State "AR" Lease, consisting of the S/2 of Section
33 and the SW/4 of Section 34, Township 19 South, Range 35 East,
Pearl-Queen Pool, Lea County, New Mexico, in the commingling
authorization granted by said order.

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MR. KASTLER: If the Examiner please, I'm Bill Kastler from Roswell, representing Gulf Oil Corporation and our witness is John H. Hoover.

(Witness sworn.)

(Gulf's Exhibits 1 through 5 were marked for identification.)

JOHN HOOVER

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KASTLER:

Q Will you please state your name, your profession, by what company you are employed and where employed?

A John Hoover, petroleum engineer with Gulf Oil Corporation, Roswell, New Mexico.

Q Mr. Hoover, have you previously appeared before the New Mexico Oil Conservation Commission and qualified as an expert petroleum engineer witness?

A Yes, sir, I have.

Q Are you familiar with Gulf's application in Case No. 2044?

A Yes, sir.

Q Would you briefly outline what Gulf is seeking?

A Gulf is asking for an amendment to Order No. R-1605 in Case 1872, to include the Lea State "AR" Lease in the Pearl-

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Queen Pool, and with the commingling order for the Lea State "AP", "IH", "BG" and "AQ" Leases, and also to permit the handling of this production from the "AR" Lease through the automatic custody transfer facilities approved by Order R-1605.

Q Mr. Hoover, it is my understanding in Order No. 1605 which was entered February 8, 1960, Gulf was allowed its application, which was a proposal to commingle the Pearl-Queen oil from four separate State Leases, is that correct?

A Yes, sir, that is correct. It was four separate State Leases, two State beneficial institutions.

Q Do you have a lease plat that would show the areal extent of Gulf's "AR" Lea State Lease?

A Yes, we have labeled this Exhibit No. 1. We have outlined in green the acreage that was approved under Order R-1605. We have outlined in red, being the Lea State "AR" Lease described as the South Half of Section 33 and the Southwest Quarter of Section 34 in Township 19 South, Range 35 East, Lea County, New Mexico, which we are requesting for inclusion with the other leases.

Q Referring to Exhibit No. 1, would you identify the wells that have been drilled, or are proposed to be drilled on Gulf's "AR" Lease?

A Yes, we have two wells which are in the process of being drilled at the present time. They have not been completed. They are pumping load oil at the present time, and Well No. 1 is

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located in the Northeast Quarter, Southwest Quarter of Section 34; Well No. 4, located in the Northwest Quarter, Southeast Quarter of Section 33.

Q Are both of these wells completed or proposed to be completed in the Pearl-Queen Pool?

A Yes.

Q And are they presently within the limits of the Pearl-Queen Pool as defined by the New Mexico Oil Conservation Commission?

A I'm not sure that that acreage has been completed, but the wells are perforated in the interval of the offset wells in the Pearl-Queen Pool.

Q Have they been tested and shown to be capable of producing in that area?

A They are recovering load oil and have not been potentialled.

Q Now, Mr. Hoover, are all other wells in Gulf's "AP", "IH", "AQ" and "BG" Leases that are material to this hearing, are all those other wells completed in the Pearl-Queen Pool?

A Yes, they are.

Q This application is strictly confined to the commingling of oil recovered from the Pearl-Queen Pool?

A Yes, that's correct.

Q Does Exhibit No. 1 also show the offset operators?

A Yes, sir, it does.

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Q And have these offset operators been given notice of this hearing?

A Yes, sir, they were given notice of the application.

Q I notice this is a State lease, does Gulf own the entire working interest?

A Yes.

Q The "AR" Lease as well as all of the others?

A Yes, sir, they do.

Q I now wish to call your attention to Exhibit No. 2.

A Exhibit No. 2 is just a diagram of the proposed flow and test lines. This is very similar to the exhibit that we submitted in the prior case. It shows that we will have a header on the Lea State "IH" Lease, and by the dotted green lines being the flow lines tying into that header, will connect all those wells from the header --

Q All of the wells from the Lea State "AH" and the Lea State "AP" Lease?

A Yes, sir. That header will be tied into the central battery located on the Lea State "AQ" Lease, which is shown as a circle, and we show two solid green lines, one being a test line and one a production line. Likewise, on the Lea State "BG" Lease, being the North Half of Section 33, we show the same connection facilities as a header plus two lines to the battery. On our Lea State "AR" Lease we show also a header with the two wells



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connected to the header and a production and test line to the battery. However, this is only tentative for the Lea State "AR" Lease. If we only obtain two wells which are economical to drill, then we may connect the flow lines to the header on the "BG" Lease. If we get as many as four wells, then this will be the proposed installation.

It might be noted on this drawing that we show no wells on the Lea State "AQ" Lease connected to this central battery, which I will explain on the next exhibit. On our Exhibit No. 3, this is the proposed production and test flow diagram. We had originally proposed to commingle the penitentiary lands, which was the Lea State "AH", "AP" and "BG" Leases, through a production heater treater and through a dump type meter to the storage tank. Likewise we would bring the production from the Lea State "AQ" Lease through a production heater treater, a dump meter, to the storage tank.

We have been corresponding with the Land Commissioner's Office, since this original order was issued of February 8, to obtain his approval for this installation. However, even though he has not seen fit to disapprove it, he has not given his approval. Therefore, in order to get this thing installed because we're running short of tank room, we have proposed to produce the Pearl-Queen production from the Lea State "AQ" Lease into a conventional tank battery on the Lea State "AQ" Lease. Therefore, part of the



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installation that we will put in now is as shown on this diagram, and the part that will not be put in is outlined, is blocked out in red. What we are leaving out is the facilities for the "AQ" production, being the heater treater, BS & W monitor, and the dump meter. Since we will not be commingling production between beneficial institutions, we will only have the Lea State "AP", "IH", "BG" and also the "AR". If approved, these are all penitentiary lands, as the beneficial institution. Therefore, we will not put the dump meter in on that facility at this time.

We do hope in the future that we can convince the Land Commissioner that it is beneficial to handle the production through our ACT facilities, and we hope that eventually we can put the installation in as proposed.

Exhibit No. 4 shows the proposed automatic custody transfer system. It's the identical system as approved under the Order 1605, R-1605, except that it will only be handling production from the Lea State "AP", "IH", "BG" and "AR" Leases, which are all penitentiary land as the beneficiary.

On June the 3rd we directed a letter to the Land Commissioner's Office proposing that we go ahead, as we have explained, in that we would commingle the production from the Lea State "AP", "IH", "BG" and "AR" Leases in a common tank battery located on the "AQ" Lease, and that we would also handle this production through automatic custody transfer equipment, and that we would continue



to use the conventional tank battery on the Lea State "AQ" Lease to handle that production, and its production will be handled in just the conventional manner and will not be commingled with the penitentiary lands.

On June the 28th we received a letter and we are labeling this Exhibit No. 5. It's a copy of that letter from the Commissioner of Public Lands' Office, and I have made prints, verifax copies of the letter, and I would like to submit the original letter and withdraw it and use the verifax copies. In this letter they approve our method of commingling the "AP", "IH", "BG" and "AR" Leases and that we use the conventional tank battery on the Lea State "AQ" Lease for production from that lease. I have examined the gravities in the original case. We showed evidence that the gravities would all fall in the same price range. I have examined them again for the July production, and the only variation that we have is on our lease, Lea State "AP" Lease. I find that the average gravity is running approximately 34. As an explanation of that, the production from that lease is being produced into temporary tanks, it's being trucked to the pipeline, pending the final installation of the equipment, and then it will be directed into our automatic battery.

The average gravity on the "IH" for July for the runnings from the "AH" Lease was 35.7, from the "BG" Lease was 35.8, from the "AQ" Lease, even though it's not going to be commingled, it is

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also running 35.8. I submit that just to show that the gravity on those three leases, where the production is being run to the pipeline through just a conventional battery, that the gravity is the same.

Even though we do not have any production from the Lea State "AR" Lease, we believe that the gravity will average out the same as the surrounding leases which I have given here as the "BG" and the "AR". Those are directly offsetting. Therefore, the commingled gravity would not be a lower price than the non-commingled gravity.

Q Mr. Hoover, referring back to Exhibit No. 3, are your production and test facilities for these four leases which involved penitentiary lands, are they sufficient and adequate in your opinion for handling all of these wells that you propose to tie into them?

A Yes, sir. We will have facilities that we can test every well individually through a test heater treater, metering by dump type meter the oil production and water production.

Q Where is that dump meter to be located on the test facility?

A It is shown by a circle just to the left of the test heater treater.

Q I see. What about your flow lines from the "AR" Lease or from any other lease, are they low pressure or high pressure lines?

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A They are conventional, standard flow lines. They would be low pressure. Of the twenty-three wells now completed, twenty-two of them are on pump. The fourth one, the Lea State "AP" No. 4 is in the process of being completed and it will be a pumping well. The two wells on the "AR", being No. 1 and No. 4, are pumping load oil at the present time and they will be completed as a pumping well, leaving only one flowing well, being the Lea State "BG" No. 3. That is ready to be put on pump now.

Q In the event of a failure of the pipeline to produce and the loading up of the surge tank, would this facility fail safe?

A Yes, it would, we would have the same safety equipment originally proposed in that we would have a high level and low level switch to stop the delivery of the oil from the pipeline to the surge tank. We would have a high level above these two switches to shut in the lease valves. A high level in the production heater treater or the test heater treater would also shut in the production valves and they're shown on this drawing to the right-hand side as a rectangle, outlined as a rectangle. The closing of the lease shut-in valve will in turn close a valve at the well and shut the pump down.

Q Now, Mr. Hoover, in Case No. 1872, which resulted in Order R-1605, I believe, did you propose and in that case show a schematic diagram of the automatic custody transfer equipment which was in all respects similar to this, with the only

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exception that it did not include the inlet from the "AR" header?

A Yes, sir, that is correct.

MR. KASTLER: Mr. Examiner, I would like to incorporate those parts of Case No. 1872 into this case so it will not be necessary to outline various recircling processes, and so forth, in the event of BS & W.

MR. UTZ: Without objection, the record in Case 1872 will be incorporated into this record.

Q Getting back to the flow line valves, do you have something to add?

A Yes, sir, I do. On the Order R-1605, as written, it requires, and I would like to read the stipulation here, that "The automatic custody transfer system shall be so equipped to prevent the undue waste of oil in the event of malfunction and flow line break." In view of the fact that all of these wells, all except one, are on pump and the other one will be on pump shortly, we do not feel that the installation of flow line valves is justified.

Q Is that for the reason that any failure, or that is any stoppage here, instead of turning off the valve, would effectively stop the well by turning off the pump?

A It would shut down the pump, yes.

MR. PAYNE: For the benefit of the applicant, that was a standard provision that we put in every ACT order, and we interpreted that as including visits by the pumper to the lease as part

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of the automatic custody transfer facilities.

A This battery is not completely automatic. In other words, it's not completely well testing and we will have personnel by it every day for manually changing the test system, I mean the wells on test.

MR. PAYNE: We considered the pumper coming to the lease daily as being a method of preventing the undue waste of oil in the event of a flow line break.

A I didn't understand it that way.

Q Were Exhibits No. 1, 2 and 3 and 4 prepared at your direction and under your supervision?

A Yes, sir, they were.

Q Is Exhibit No. 5 a true copy of an unsigned letter received by Gulf in Roswell from the Commissioner of Public Lands?

A Yes, it is.

MR. KASTLER: I move that Exhibits 1 through 5 will be entered into the record.

MR. UTZ: Without objection the Exhibits 1 through 5 will be entered into the record.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Hoover, was it your intent in this case to amend R-1605 to exclude the "AQ" Lease?

A No, sir. We would only like to amend Order R-1605 to



add the "AR" Lease and permit the handling of production through the automatic custody system. We still have hopes that we will be able to put this in at a later date and without the requirement of another hearing.

BY MR. PAYNE:

Q So we'll still need the provision in the order relative to metering separately the production from four leases and metering separately the production from the Lea State "AQ" Lease, four of them have the same beneficiary and one has a different beneficiary?

A That's right. We will have to meter separately because they will be in different batteries.

Q You still want the authority to commingle?

A Yes, and we would meter them separately.

MR. KASTLER: We would take the consequences of metering separately.

Q You want the authority to measure your "AR" production by way of the automatic custody transfer facility?

A Yes, sir.

MR. KASTLER: May I ask a question or two to clear up the business of the Land Commissioner?

MR. UTZ: All right.

REDIRECT EXAMINATION

BY MR. KASTLER:

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Q Are you informed by consultation with the Office of the Land Commissioner that they are still considering granting us this authority to commingle the "AQ" or common school beneficial lands with the penitentiary lands, they are still considering that proposition?

A That's my understanding that they are still considering, because they have not turned it down. They just haven't approved it.

Q And their consideration involved the determination of whether or not the commingling would be adverse from the standpoint of lowering gravity?

A Yes, that's my understanding.

RE CROSS EXAMINATION

BY MR. UTZ:

Q You will handle the "AQ" Lease then in the conventional manner by commingling the oil from all eight wells on that lease into a common tank battery?

A Yes.

Q Will you meter out of that common tank battery into the pipeline?

A No, sir. That will be measured by tank, by tank gauge.

Q It won't go through the LACT system at all?

A No, sir.

Q 1605 does give you permission to meter separately that



lease and enter it into the LACT system?

A It does, yes, sir.

Q Was the question of shrinkage involved in the reluctance of the Land Commission to approve this?

A Well, I think that was one of the things they might have been considering. However, I think the main thing was the gravity and price.

MR. PAYNE: I think the Land Commissioner's basic problem is not so much gravities as keeping the trust fund separate.

A Yes, sir. They apparently, apparently the present law does not really give them an out of approving it, as I understand, is that correct?

MR. KASTLER: I'm not a witness; it is my understanding and off the record, that the shrinkage factor is reduced by ACT system and actually is inducing them to keep this under consideration, whereas they might say otherwise "we are through considering it". So the shrinkage factor is acting in our favor, we believe.

MR. UTZ: Any other questions? If not, the witness may be excused.

(Witness excused.)

MR. UTZ: Other statements in this case? If not, the case will be taken under advisement and the hearing is adjourned.

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STATE OF NEW MEXICO)
: SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 15th day of August, 1960.

Ada Dearnley

Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2044 heard by me on *Aug 10* 19*60*.

[Signature]

Examiner
New Mexico Oil Conservation Commission

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