

DEARNLEY-MEIER REPORTING SERVICE, Inc.

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PHONE 325-1182

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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

November 29, 1961

EXAMINER HEARING

IN THE MATTER OF:

Application of Gulf Oil Corporation for an 80-acre non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of an 80-acre non-standard gas proration unit in the Eumont Gas Pool, comprising the E/2 NE/4 of Section 34, Township 19 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the J. W. Smith Well No. 2, located 660 feet from the North and East lines of said Section 34.

CASE NO.
2443

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

EXAMINER NUTTER: We will call Case No. 2443.

MR. WHITFIELD: Application of Gulf Oil Corporation for an 80-acre non-standard gas proration unit, Lea County, New Mexico.

MR. KASTLER: W. V. Kastler from Roswell, appearing on behalf of Gulf Oil Corporation. We have one witness, Mr. J. H. Hoover.

(Witness sworn.)

J. H. HOOVER,



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

DIRECT EXAMINATION

BY MR. KASTLER:

Q Mr. Hoover, will you please state your position, where you reside, and where you are employed?

A I am a senior petroleum engineer with Gulf Oil Corporation in Roswell, New Mexico.

Q Have you previously qualified as an expert petroleum engineer and testified before this Commission?

A Yes, sir, I have.

MR. KASTLER: Are the witness's qualifications satisfactory?

EXAMINER NUTTER: Yes, sir; please proceed.

Q (by Mr. Kastler) Are you familiar with the application in Case No. 2443?

A Yes, sir.

Q Would you please explain what Gulf Oil is seeking in this case?

A We are requesting approval of the 80-acre non-standard Eumont gas proration unit covering the East half of the Northwest quarter and the East half of the Northeast quarter of Section 34, Township 19 South, Range 36 East, Lea County, New Mexico, that being a portion of our J. W. Smith lease and to be attributed to our J. W. Smith Well No. 2.

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Q That's the East half of the Northeast quarter?

A The East half of the Northeast quarter.

Q Isn't it normal procedure to obtain administrative approval for applications of this nature?

A Yes, sir, it is, and we made such application for administrative approval and there was an objection from an offset operator. That is the reason it was set for hearing.

Q In what form were these objections made or stated?

A In a letter to the Oil Conservation Commission office.

MR. MORRIS: That is part of the file in this case.

Q (by Mr. Kastler) Would you refer to that letter or a copy that Gulf has received and state what the objections were that were made by this offset operator?

A Yes, sir. This is a carbon copy of the letter which was furnished to us addressed to the Oil Conservation Commission office in Santa Fe dated October 20, 1961. I would like to quote in part the objections. "We object to Gulf Oil Corporation's request for the following reasons: 1. The subject Gulf lease is a structurally high tract. An excess of gas production will probably create a differential reservoir pressure whereby the oil in place will be moved across lease lines. 2. The 80-acre units are considered to be too small for this reservoir and in my opinion if such units are allowed, the reservoir pressure would be rapidly depleted, causing premature well abandonment. 3. A secondary oil recovery project by waterflood is

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under study for this area. Under any type of secondary recovery program, the remaining oil in solution will tend to maintain adequate oil viscosity and fluid mobility to permit such flooding and prevent waste."

Q Would you please review the facts leading up to this hearing or the history of this well?

A Yes. Gulf's J. W. Smith No. 2 was originally completed in the Monument Oil Pool in 1937. In 1956 it was plugged back to the Eumont Oil Pool and completed as a high GOR Eumont oil well.

EXAMINER NUTTER: What do you mean by high GOR?

THE WITNESS: That's what I was trying to find in my notes, Mr. Nutter. The well was completed flowing 15 barrels of oil, 449 MCF of gas with a GOR of 29,940, that being a high GOR because the limiting GOR is 10,000 in the Eumont Pool. It has a penalized allowable of 31 barrels based on top pool allowable of 38 barrels. The Commission set the annual GOR for this pool for GOR tests and as a result of the 1961 annual tests the J. W. Smith Well No. 2 was re-classified as a Eumont gas well because it produced in excess of 100,000 to 1.

(Applicant's Exhibit No. 1
marked.)

A (continuing) I would like to present Exhibit 1 at this time, which is a letter from the Commission division office in Hobbs advising us that they were re-classifying this well as

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a result of the GOR test. There is one point I would like to bring out, in the last paragraph of that letter, it referred to these wells, other wells. The J. W. Smith well is the one in question. These wells will be shut in effective September 1st and will remain shut in until they have complied with the provisions of Commission Order R-1670 pertaining to the Eumont gas pool. That order states that a gas well is one that produces in excess of 100,000 to 1. It states further that if the well is not classified as a gas well, it is classified as an oil well. It further sets out the limiting GOR; and to comply with the Order R-1670 to get an allowable or to be allowed to produce a well, you have to have a proration unit. And the reason for our request is to allow this well to produce by requesting an 80-acre non-standard unit.

Q (by Kastler) Do you have additional exhibits to offer in this case? What does Exhibit 2, for example, show? Would you identify it?

(Applicant's Exhibit No. 2
marked.)

A Exhibit 2 is a structure plat contoured on top of the Penrose pay. The Penrose pay is part of the Queen formation and is in the vertical limits of the Eumont gas pool. All we have showing on this plat is that the structure is dipping very sharply to the west and that the east side of our Smith lease is structurally high; and we feel that the reason this well has



become a gas well is the fact that it is structurally high, and one of the objections was that the well was structurally high, and we agree that it is.

Q On Exhibit 2, I notice you have outlined in red an area that appears to be your lease area. Is that the Smith lease?

A Yes, being the Northeast quarter and the North half of the Northwest quarter of Section 34.

Q The well in question is located in the Northeast of Section 34, is that correct?

A Yes, sir.

Q Has it been designated on Exhibit 2?

A It is only circled on Exhibit 2. It is designated on Exhibit 3.

(Applicant's Exhibit No.3
marked.)

Q Calling your attention to Exhibit 3, would you please identify it and explain where is shown information there pertinent to this case?

A What we did on Exhibit 3 -- we have outlined in red our proposed 80-acre non-standard unit, being the East half, the Northeast quarter of Section 34, and we have circled in red the unit well. We have also shown the offsetting gas units by other operators. They are outlined in green and the unit well producing is outlined, circled in green. What we are show-



ing there is that our non-standard unit is offset to the north-east and south. It is offset to the northeast and south by other existing Eumont gas units.

Q Is it your opinion, Mr. Hoover, that this area at present is being drained by these other existing gas units?

A Yes, sir, it is.

Q You stated that one of the objections was that an excess of gas production would probably create a differential reservoir pressure whereby oil in place will be moved across lease lines. What is your answer to this objection?

A It would not, under the term "excess of gas production" because based on the first eleven months of 1961, that's January through November -- we don't have the December proration schedule, so therefore, the first eleven months average allowable for an 80-acre unit in the Eumont gas pool is only 95 MCF per day. Those are actual figures taken from the gas proration schedule. An oil well in this pool can produce 10 times a top allowable of 34; therefore, an oil well on 40 acres can produce 340 MCF a day according to the rules and regulations. Therefore, we don't see how this well producing on 80 acres, producing less gas than an oil well can on 40 acres, can cause oil to migrate across the lease line.

Q : What comment do you have concerning the objection that 80 acres are considered too small and that in such a unit the reservoir would be rapidly depleted?

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A The only reason we would consider them too small is strictly economics. Due to the very low allowables you could not spend very much money on the development of 80 acres. However, the allowables are based on acreage alone. An 80-acre unit can withdraw its proportionate amount and there is no reason why an operator could not develop on any side that he feels economical.

Q What is your comment concerning a secondary oil recovery project?

A Well, we are certainly aware of the possibilities of a secondary recovery project and have been for some time. In fact, at our initiative, a meeting has been held with the operators to discuss a secondary project and we do not feel in any way that the granting of our request for an 80-acre non-standard unit will affect the project in any way.

Q Do you have anything further to add?

A I have just one other thing: That the granting of our application will afford us an opportunity to protect correlative rights in view of the setting of the Eumont gas unit shown on Exhibit 3.

Q Would the denial of your application result in permanent shutting in of Well No. 2 and abandoning any hope of recovering gas in place there?

A Yes, sir.

Q Mr. Hoover, were Exhibits 2 and 3 prepared by you or



at your direction and under your supervision?

A Yes, sir, they were.

MR. KASTLER: That concludes our direct testimony at this time.

EXAMINER NUTTER: Does anyone have any questions of Mr. Hoover?

CROSS EXAMINATION

BY EXAMINER NUTTER:

Q Mr. Hoover, this well was completed in 1956 with a GOR of 29,940. You mentioned that annual tests are taken. Could you give us the annual GORs that this well has experienced since being recompleted as a gas well?

A No, sir. I don't have the other tests. I have only the recent one.

Q Is this the first time it's gone over 100,000?

A Yes. The regular test that was conducted in May of this year, our test on May 9, 1961, the well produced one barrel of oil, 113 MCF of gas giving a GOR of 113,000. The result of that test was that the well was reclassified. We retested the well in September to see if we agreed that it should be a gas well and we could not get a test anything under 100,000. In fact, our test on September 11 showed that the well produced no oil, 183 MCF. On September 13, no oil, 200 MCF.

Q Just a minute. I want to jot those down. That's a high ratio.

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A Yes, sir.

Q These tests were after the well had been shut in for a period since September 1st?

A Yes, sir. They were shut in September 1st at the direction of the Commission.

Q Now, what formation or what pay is the No. 1 Smith well completed in?

A Oh, I overlooked the No. 1. It is completed in the Monument Oil Pool and --

Q And the Nos. 2 and 3?

A All the rest are in the Eumont oil wells. So, on the proposed 80-acre non-standard unit, we would not have any Eumont oil dedicated there.

Q Have there been any trimmed as far as GORs are concerned in the No. 5 and 6 which are up-structure?

A I don't have the trends. However, the most recent GOR test which was the one conducted in 1961, the No. 5 had a GOR of 39,917. No. 6 has a GOR of 12,045.

Q That was taken in April of 1961?

A April or May. I believe it was May. I don't have the date on those but it was probably the same month, at the same time.

Q That was the same test period that No. 2 came up with the 113,000?

A The regularly scheduled GOR test. No. 3 has a GOR of



3323, and the No. 4 has a GOR of 1800.

Q These wells are down-structure?

A Yes, sir. The gas-oil contact that we show on Exhibit 2 is approximate.

Q You stated that the average allowable for an 80-acre unit for the last year, but not counting December, has been 95 MCF per day.

A Yes, sir.

Q And that the top allowable oil well in the Eumont would have a GOR limit of 340 MCF per day.

A Yes, sir, if it was producing right at the top limit and capable of producing top allowable.

EXAMINER NUTTER: Are there any further questions of the witness?

He may be excused.

(Witness excused.)

MR. KASTLER: I wish to offer these exhibits into evidence, one, two and three.

EXAMINER NUTTER: Applicant's Exhibits 1 through 3 will be admitted in evidence.

MR. FITTING: Robert D. Fitting with Pearson Gilbert Oil Company.

The objection still stands. We don't believe they have answered the fact that their well is a gas well. The offset well to the north is producing at a ratio less than 26,000 and it's our opinion, since that well and the well to the south,

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that some re-working may be necessary, not re-classification, and we wonder whether or not this isn't a little bit propitious, if the operator intends to form a unit for waterflood purposes. We also notice that there was a meeting called November 10, subsequent to our objections.

EXAMINER NUTTER: Is there anything else anyone wishes to offer in this case?

We will take the case under advisement.

* * * * *



