BEFORE THE
OIL CONSERVATION COMMISSION
Hobbs, New Mexico
October 31, 1956

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IN THE MATTER OF:

CASE 1168

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TRANSCRIPT OF PROCEEDINGS

BEFORE THE
OIL CONSERVATION COMMISSION
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IN THE MATTER OF:

In the matter of the application of Schermerhorn Oil Corporation for establishment of a 285-acre non-standard gas proration unit in the Eumont Gas Pool, Lea County, New Mexico, in exception to Rule 5 (a) of the Special Rules and Regulations for said pool as set forth in Order R-520. Applicant, in the above-styled cause, seeks an order establishing a non-standard gas proration unit in the Eumont Gas Pool consisting of:

CASE NO. 1168

Township 18 South, Range 37 East
Section 33: S/2 SW/4 and NW/4 SW/4

Township 19 South, Range 37 East
Section 4: NW/4

all in Lea County, New Mexico; said unit to be dedicated to applicant's Linam "B" Well No. 2, located 660 feet from the South line and 2310 feet from the West line of said Section 33.

BEFORE:

Warren W. Mankin, Examiner

TRANSCRIPT OF HEARING

EXAMINER MANKIN: The next case is Case No. 1168

GURLEY: Case 1168, the application of Schermerhorn Oil Company for establishment of a 285-acre non-standard gas proration unit in the Eumont Gas Pool, Lea County, New Mexico in exception to Rule 5 (a) of the Special Rules and Regulations for said Pool as set forth in Order R-520.

J. H. MOORE

having first been duly sworn in, testified as follows:

MOORE: My name is J. H. Moore, I am a geologist, I work for Schermerhorn Oil Corporation in Hobbs, New Mexico. I have previously qualified as an expert witness before the Commission.

EXAMINER MANKIN: Your qualifications are acceptable.

MOORE: This application for a 285-acre non-standard proration unit is made and I have three exhibits to offer. The first exhibit is a map that shows the location of the unit and surrounding wells in the Eumont Pool. This map shows the location of the acreage to be included in the 285-acre proposed proration unit and also the location of the gas well from which the gas is to be produced, the completed gas well is the Linam "B" No. 2 Well. Its located in Section 33, the southeast of the SW/4 of Section 33. There would be two exceptions to the regular spacing in this well, one - - - - the first is that the acreage is out of the section. Part of the acreage proposed to put in the unit is in the adjoining Section 4 to the south. All of the acreage is contiguous but part of the acreage is out of the legal section. Also, the location of this well was made at a - - - - - - - the actual location of the well is 660 from the South line and 2310 feet from the West line. When the well was first started, it was proposed to make an oil well, but it was only possible to make a gas well out of it. Thats the reason that we are asking for an exception to the spacing there. To come back to the contours, we have a second exhibit which is a cross section in which we can discuss the completion of the well.

GURLEY: Yes, if it please the Examiner, I want to ask a question here. You have applied for a non-standard unit, is it my understanding that you are also asking for approval of an unorthodox location?

MOORE: Yes. The location was given, although not specifically asked for. Although the location is 330 feet from the lease line.

GURLEY: Now, its located 660 feet from the South line and 2310 feet from the West line of Section 33? - - - - - Just a minute.

EXAMINER MANKIN: Then, Mr. Moore, you would desire that your application reflect a request for an unorthodox location even though it was'nt in so many words put in your application, it was indicated where the location was?

MOORE: Thats correct.

EXAMINER MANKIN: You would like to amend your application to that effect at this time?

MOORE: That is correct. I believe that was my oversight that we did'nt mention that specifically.

EXAMINER MANKIN: Is there objection to amending the application to properly reflect the well location as an unorthodox location? If not, it will be so amended.

GURLEY: Mr. Examiner, I think the record should show that the Commission has ruled that it is within the scope of the application and that the location as far as footage is concerned was in the initial application and in the advertisement, although it was not specifically set out as saying an unorthodox location.

MOORE: This is a west and east cross section which shows the lower part of the section thats involved, its the producing section, these are radio-active logs, they log the place on a horizontal plane to show the actual position of the beds subsea, with only the lower part of the log included from the Yates, the Queen, and the producing formation in the Eumont field. These two wells are - - - - -

EXAMINER MANKIN: Would you identify the two wells for the record please?

MOORE: Schermerhorn Linam "B" No. 1 Well, this is in the southwest southwest Section 33, Township 18 South, Range 37 East, which is on the

proposed unit acreage. The second well is to the east, which is the Schermerhorn Linam "B" No. 2 southeast southwest of Section 33, 18 South, 37 East. The third well which is the east offset to the proposed unit acreage is the Aztec State 33 No. 2 which is in the southwest southeast of Section 33. All wells are in Section 33. For a history of the drilling on the Linam "B" 2 Well, which is a completed gas well now, we drilled to a depth of 4,039 feet and set casing on bottom. Two intervals were perforated. The interval from 3,970 to 4,010 and the interval from 3,870 to 3,910. A packer was set in the casing and the perforation. The bottom perforations were treated with 10,000 gallons of oil sand frac, I believe with 10,000 pounds of sand. The well was swabbed and it was swabbed dry. About 200 barrels of load oil was recovered so that it was not possible to get any oil from this zone down here, and the well was plugged back and thats the present status of the well now. The permanent plug was set in the casing above these perforations at 3,963 feet and the interval above was tested. On a natural test the gas flowed from these perforations at the rate of about 3½-million cubic feet per day, and the well was completed natural. So thats the present status of this well, is that an attempt was made to complete as an oil well here and it was not possible to do so, and a dry gas well was made at the top and that well has been tested by the Permian Basin Pipe Line Company, they tested it for us, and it made gas with no fluid. This cross section shows that it is fairly difficult - - - - - or at least the sand identity are not the same development across the lease. This well, which was drilled prior to this one, the production history on it was a little bit similar, in that we drilled it to bottom and set pipe on bottom and perforated the interval from 3,582 to 3,602 and the interval here from 3,715 to 3,730, 3,740 to 3,746, and also from 3,822 to 3,866. That was this interval.

EXAMINER MANKIN: Mr. Moore, you were referring, were you not to the Linam "B" 1, just give me those perforations.

MOORE: Thats right. And those upper perforations were treated with 15,000 gallons of oil sand frac and after the load oil was swabbed back, the well was flowed approximately - - - - - well, I would say that the load oil was never fully recovered and there was a small amount of gas that flowed from the well, but it was'nt commercial, so these perforations were squeezed off with cement and the two lower intervals were perforated from 3,885 to 3,910 and 3,926 to 3,946. Those intervals were treated with sand frac - 10,000 gallons, and the well was completed as an oil well from this lower sand or the lower stringer for flowing 55 barrels of oil per day, this was the potential. This well, the Aztec State 33 No. 2 had a fairly normal simple completion in that it was drilled to 4,096, set casing on bottom, and perforated an interval of good sand development from 3,912 to 3,962 and it was completed for an oil well. The initial potential was 164 barrels of oil in five hours.

EXAMINER MANKIN: Mr. Moore, you have been referring to this lower member all along, in this Exhibit 1, is that the Penrose portion of the Queen that you have been referring to as being productive?

MOORE: The Penrose Sand is here, and in some places it is a fully developed sand and it extends as much as 100 or 150 feet, in other places it seems to be lenticular and not completely developed all the way through. This is the Penrose member of the Queen, but it is not developed fully or equally at different places. I believe that is all I have on that. For Exhibit 3, I have a copy of a test made by Permian Basin Pipe Line Company on the Linam "B" No. 2 Well. This test was made about two weeks after the well was completed and it shows, this is the natural flow. The well was not treated. It shows a gas flow of 2,241 MCF per day against a back pressure of 725.4 pounds absolute. They calculated a flow 2,950 MCF per day against 500 pounds per square inch gauge which is the approximately normal operating pressure for the gas gathering system. The well had an absolute potential calculated at 3,500 MCF per day. I'd like to enter this as Exhibit 3. The testing of this well indicated that it was only possible

to make a gas well at that location and we feel that the potential is large enough to make the allowable for a 285-acre unit, and thats the basis for our application for approval of the proposed 285-acre unit. Unless they - - I might say the reason for a 285-acre rather than a even 280-acres is that the quarter section which is a NW/4 of Section 4 is 5 acres over the normal 160-acre acreage from the location on the Township line.

GURLEY: Mr. Moore, who owns the royalty on these - - - - -

MOORE: All of the land under the two tracts is fee land. All of the working interest ownership is owned by Schermerhorn Oil Corporation, the Kinwood Oil Company and Gordon and Cone own all of the working interest under the 285-acre tract. The royalty is divided between the two sections. They are owned by individuals, and there is a number of royalty owners under the tract.

GURLEY: Well, now, I don't quite understand this, how is the Schermerhorn Oil Company set in here, do you own the lease at this time, or do you - - - - - - -

MOORE: Thats correct.

GURLEY: And from whom did you obtain these leases?

MOORE: From Keyes Mineral Owners, from a number of individuals who own the Keyes Minerals.

GURLEY: And you obtained them direct then did you?

MOORE: Correct.

GURLEY: Now, is it one base lease?

MOORE: No, three base leases, under the 280-acre tract. I'll give you the three base leases. There is one base lease that covers the S/2 of the NW/4 - - - -

EXAMINER MANKIN: Thats Section 4?

MOORE: In Section 4, and we call that the Linam Lease, that lease of course is held by production. There's another base lease. The second base lease covers the - - - - - - - - one base lease covers the S/2 of the NW/4 of Section 4 and the S/2 of the SW/4 of Section 33, so thats one base lease,

those two eighties. The second base lease is the N/2 of the NW/4 of Section 4. The third base lease is on the 40-acre tract in the NW/4 of Section 33.

GURLEY: NW/4 of the SW/4?

MOORE: Yes.

GURLEY: Section 33?

MOORE: That is correct.

GURLEY: What you are in effect doing here is pooling those leases, is that not true?

MOORE: That is correct.

GURLEY: Do you have pooling clauses in your leases from the three owners?

MOORE: Not all of them. We have pooling clauses on most of them, but not all of them. We have tentative permission from most of the mineral owners that they will join in communitization agreement, but we have not had a communitization agreement executed by all the royalty owners yet.

GURLEY: Are you in the process at this time sir, of attempting to communitize with the - - - - - this acreage?

MOORE: No, we were going to wait until the outcome of the hearing and then prepare a communitization agreement and present to the mineral owners.

GURLEY: Well, you understand sir, that it is a policy to uphold any allowable, the granting of any allowable until such communitization agreement has been - - - -

MOORE: I understand thats from the working interest owners only, and the working interest ownership is common. Is that not correct?

GURLEY: Thats true, there has been some question there as to just what should be done on that and whether or not the joining of the royalty owners is necessary, and frankly, the concensus is that the royalty owners should be joined in a Communitization Agreement. I think, if it please the Commission, that it should be brought to the applicant's attention that we would expect some affidavit of communitization before the allowable would be granted in this case.

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requesting, what is the producing section in the Linam"F" 1 which is located in the northeast of the northwest of Section 4?

MOORE: The lower, I would say the middle part of the Penrose.

EXAMINER MANKIN: It is still Penrose?

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GURLEY: NW/4 of the SW/4?

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MOORE: You mean from the royalty owners as well as the working interest owners?

GURLEY: No, now what we will expect there is your affidavit that the communitization has been achieved and that will be sufficient, but we don't mean that it will be in the processing, but it shall actually be an executed agreement at the time that you make your affidavit.

MOORE: Between the working interest owners.

GURLEY: No, the working interest and the royalty owners have all joined. I think that that should be the ruling here, Mr. Examiner. There is, as I say, some question there but I think the ruling is going to be by the Commission that henceforth all royalty interests will either have joined or else you ask for forced pooling of the royalty interests under our law. One other question, these exhibits, were they prepared by you?

MOORE: Yes.

GURLEY: Thats all I have.

EXAMINER MANKIN: Mr. Moore, from your Exhibit No. 2, you indicated that the Linam "B" No. 1 was completed as an oil well, I did'nt quite determine whether you indicated the production was coming from the Penrose member or from the Queens member, or the upper portion of the Queen.

MOORE: It is my understanding that the Penrose member is the lower part of the Queen formation, and the oil in the Linam "B" 1 is coming from stringer to sand in the lower part of the Penrose.

EXAMINER MANKIN: It is coming from the Penrose - - - - -

MOORE: From stringer to sand in the lower part of the Penrose.

EXAMINER MANKIN: I'll ask you also, on this same unit which you are requesting, what is the producing section in the Linam"F" 1 which is located in the northeast of the northwest of Section 4?

MOORE: The lower, I would say the middle part of the Penrose.

EXAMINER MANKIN: It is still Penrose?

MOORE: Yes, now the Penrose is a group of sands. Some places they seem to be continuous, other places, it is not continuous, which is the case here.

EXAMINER MANKIN: In - - - - - on the Linam No. 1 which is located in the southwest of the northwest of Section 4, was that well not originally completed as a gas well?

MOORE: Yes, it was.

EXAMINER MANKIN: It - - - - later the ratio dropped and the fluids increased to such an extent that it is now an oil well?

MOORE: Thats right.

EXAMINER MANKIN: Is it producing from the Penrose member?

MOORE: Yes.

EXAMINER MANKIN: So there is, at the present time, three oil wells from the Penrose member that is producing from the Eumont Gas Pool, in addition to the gas well which is the Linam "B" No. 2 which you here today request? Is that correct?

MOORE: Thats correct. The Penrose - - - - I don't believe its a single member, the Penrose is a group of sands and the production in those wells is from one or more of that group of sands.

EXAMINER MANKIN: I believe that you on Exhibit 2 indicated a gas-oil contact at about a -195. Is that gas-oil contact rather regular or is it rather erratic in this area?

MOORE: The zones of production are erratic and I believe that the gas-oil contact where its tested in zones of fairly equal development, it will be found to be somewhere near that point and fairly regular.

EXAMINER MANKIN: But due to these numerous stringers in the Penrose member, it is rather difficult to pick.

MOORE: Thats the variable factor, is the sand development, more than the changing of the gas-oil contact. The thing that complicates it is that we have different sub-seas for groups of perforations and some of them might be even below that and have no sand development so it does'nt prove one way or

the other where these gas-oil contacts might be.

EXAMINER MANKIN: Mr. Reider.

REIDER: Due to the erratic nature of the sands would you still say that the acreage that you propose to dedicate here would be all productive of gas?

MOORE: Yes, I would say from the upper part of the Penrose member, yes. Because this contour map I failed to mention, is contoured on the top of sand development rather than any particular, its not contoured on the top of the Queen zone which can be correlated, but its on top of sand development which varies some, you can see there is a spacing, a wider spacing to the left between the top of the Queen and the top of the actual sand development to the contours are on the top of good sand development and all of this acreage is located at a higher subsea than -195.

EXAMINER MANKIN: Mr. Runyan.

RUNYAN: On your last test, I don't believe you indicated if the well made any liquid or not.

MOORE: There was no liquid.

RUNYAN: None?

MOORE: None whatsoever. The well was blown to the air with no separater at all, it was tested directly to the air and there was no fluid.

RUNYAN: What I had in mind is that your Linam No. 1 went from gas to oil and it is a slightly higher well - - - - - - -

MOORE: From the Linam No. 1 Well. It was drilled with pipe set in the very top part of one of the Penrose stringers and the well was then drilled on down through all the zones and the controlling factor there is the section that is open to production and the section open in that well is, in fact the entire section is open and has been treated and thats probably the reason it went to oil, because the oil interval below the gas-oil contact was treated and is open, - - - - - - - - -

RUNYAN: I was wondering if it is not true that the gas-oil contact generally in the area is not much more than -150 - - - - - - - -

MOORE: Well, at one time we used 175, -175 and this well seems to have given us a more definite break than we've had before because our perforations are a little bit lower than -195 but the porosity indicated is it about that point and its completely dry.

EXAMINER MANKIN: Is there other questions? Mr. Moore, in this particular well in question here today, the Linam "B" 2, nowhere in the testing of this well nor in the logging of the well was there any indication of any oil development?

MOORE: No, we recovered no new oil from the lower perforation and we made no drill stem test in drilling down.

EXAMINER MANKIN: Mr. Moore, would Schermerhorn be agreeable in view of this very erratic situation in this area where wells have gone from gas to oil and from oil to gas, vice versa, would Schermerhorn be agreeable to setting equipment there to determine if in the future that that should go to - - - - - liquids should be made, in other words set in some kind of separation equipment?

MOORE: Yes. Thats our practice to watch the wells and if they seem to ever indicate fluid, we put a separater on. We usually do that by asking - - - the gas purchasing companies usually handle the wells, and they are more familiar with them and we ask them periodically if the wells are making any fluid. At that time, we do put a separator on them, a high pressure separator.

EXAMINER MANKIN: Well, in view of the fact that there has been quite a lot of liquids dumped into Permian's line in this area, I just wondered if you would be agreeable to watching that very closely.

MOORE: Yes.

EXAMINER MANKIN: Is it not true that just northwest of your - - - - - northeast of your lease which is the Humble Well in Section 33, their 1 "B" Well, that they obtained both oil and gas in the well bore?

MOORE: Are you speaking of the well in 32, I believe thats their - -

EXAMINER MANKIN: Yes, in 32.

MOORE: Humble AK.

EXAMINER MANKIN: AK, in 32, I'm sorry.

MOORE: Thats correct. That well was perforated at a lower subsea in the Penrose stringer than the Linam "A" Well to the east and the well is making both gas and oil. That well, I believe that its a high gas-oil ratio well, right now. I believe the last report showed it was something under 18 barrels per day with a ratio of 17,000.

EXAMINER MANKIN: Is there other questions of the witness?

GURLEY: One thing more, Mr. Examiner, you understand, sir, that we will expect some indication, that is in the form of an affidavit of a communitization agreement before your allowable, assuming that this application is granted, before your allowable will be granted to the well.

MOORE: And that will include both the royalty owners and - - - - -

GURLEY: The communitization agreement, to be complete, must be signed by the royalty owners. Your affidavit stating that there has been a communitization of the property may be signed only by you.

EXAMINER MANKIN: Anything further? Did you have anything further Mr. Moore?

MOORE: No.

EXAMINER MANKIN: Did you wish to enter Exhibits 1, 2, and 3 in this case?

MOORE: Yes.

EXAMINER MANKIN: Is there objection to entering Exhibits 1, 2, and 3 in this case? If not, they will be so entered. If there is nothing further the witness may be excused. Is there any statments or anything further in this case? If not, we will take the case under advisement.

STATE OF NEW MEXICO)
:
COUNTY OF SANTA FE)

I, Doris Arnold, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Commission Examiner at Hobbs, New Mexico, is a true and correct record, to the best of my knowledge, skill and ability.

Dated at Santa Fe, New Mexico this 7th day of January, 1957.

Doris Arnold