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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 10, 1962

EXAMINER HEARING

IN THE MATTER OF:)

Application of Martin Yates III and)
S. P. Yates for compulsory pooling,)
Lea County, New Mexico. Applicant, in)
the above-styled cause, seeks an order)
force pooling all mineral interests in)
the Lusk-Strawn Pool to form a 160-acre)
oil proration unit comprising the NE/4)
of Section 30, Township 19 South, Range)
32 East, Lea County, New Mexico, to be)
dedicated to a well to be drilled in)
the NE/4 NE/4 of said Section 30.)

Case 2655

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: Case 2655.

MR. LOSEE: A. J. Losee, Losee & Stewart, Artesia,
representing the Applicants. At this point I'm the only witness
that can testify. I'm satisfied my clients are here. They were
here last night.

MR. NUTTER: Any other appearances in this case?

MR. MORRIS: Yes, sir, Richard Morris of Seth, Mont-
gomery, Federici & Andrews, appearing for Kerr-McGee Industries.
With me is Mr. Francis Irvine of the Oklahoma City Kerr, Conn &



Davis, also representing Kerr-McGee Industries. We may wish to present some testimony at the conclusion of the Applicant's case.

MR. LOSEE: At this time, if agreeable with other appearances, I'd like to ask that it be continued. If you'll give me a minute I'll go call my witnesses.

MR. NUTTER: Have you got your witnesses here for 2656? Let's put this case in abeyance for two or three minutes and call Case 2656.

(Whereupon, testimony in Case 2656 was presented.)

MR. NUTTER: Let's recall this Case 2655 again. We've called this case before and had the appearances entered.

(Witness sworn.)

(Whereupon, Applicant's Exhibits 1 through 7 were marked for identification.)

H. N. SWEENEY

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

DIRECT EXAMINATION

BY MR. LOSEE:

Q State your name, please.

A H. N. Sweeney.

Q Where do you live, Mr. Sweeney?

A 1905 South Washington, Roswell.

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Q What is your occupation?

A I'm an independent geologist.

Q Have you ever testified before this Commission?

A Yes, sir, I have.

Q Have your qualifications been accepted at that time?

A They were.

MR. LOSEE: Are Mr. Sweeney's qualifications accepted?

MR. NUTTER: Yes, sir, please proceed.

Q (By Mr. Losee) Please refer to what has been marked as Exhibit No. 1. Does this map portray the working interest ownership, or purport to, in Section 30, Township 19 South, Range 32 East, Lea County, New Mexico?

A Yes, sir.

Q The quarter section which is the subject of this application is the Northeast Quarter of that section. Would you state for the record the ownership of each 40-acre tract within that quarter section?

A There are four separate leases in four 40-acre tracts within the Northeast Quarter of which the Northeast Quarter and the Southwest Quarter is held by the Yates, the Northwest Quarter and Southeast Quarter are held jointly by Phillips and Kerr-McGee.

Q Does this map purport to portray any geology with respect to this Strawn, Lusk-Strawn Pool?



A Yes, sir, it's my interpretation of the structure based on the controls that we have at this time.

Q What controls, Mr. Sweeney?

A There's been eight wells drilled in the area somewhat widely spaced and generally on a direct line, but based upon the top of the Strawn on those eight wells this map has been constructed.

Q How many wells have been completed in the Strawn in this pool?

A There are four good ones and two marginal wells and two dry holes in this area.

Q What are the good wells, the names of the wells?

A The El Paso Lusk 1, 2 and 3, and the El Paso Southern California No. 1.

Q You have noted on this map the words "Lusk Deep Unit"?

A Yes.

Q Is that area outlined? A Yes, sir.

Q Is that the dotted lines of which this Section 30 lies directly south of?

A Right.

Q Now, in the northwest corner of the map you have a note, "The Greenwood Unit". Is that another federally-approved unit?



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A Yes, sir.

Q You stated that Yates owned two 40-acre tracts in this 160-acre unit. Would you state how this acreage was acquired?

A This is a farmout from Edna Hall and Frank Elliott. Shall I go into details?

Q Go into a little general terms of the farmout, if you would, please.

A This is an area I have been studying for a long time, and about the first of June I started to work to put together a deal here in Section 30, and succeeded in obtaining a farmout from Edna Allen Hall and Frank Elliott of these two 40's and an additional 80 in the Southwest Quarter of the section. It was obvious that since we were subject to the Strawn spacing order that we would either need a farmout from Phillips and Kerr-McGee or their joinder in a well, and they were first contacted, Phillips was on June 18, I believe is the date, and they asked me to write them a letter indicating, that is Mr. Fallord with Phillips that I talked to, and he said that they probably would farm it out and asked me to write him a letter.

Q Let me stop you a minute. Now, the terms of your deal with Elliott, Hall, did it have any drilling obligation?

A Yes, sir. It required the well to be commenced by September 13.



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Q And did you go to what depth?

A To the Strawn.

MR. NUTTER: That's September 13 of 1962?

A Yes, sir.

Q Did it also by doing that, how much acreage did the Yates earn, all of the acreage from the top to the bottom under that farmout, by drilling the Strawn well?

A No, sir, they only earned one hundred feet below the depth drilled, but with a Strawn well.

Q Did it have any provision for a Morrow well?

A Yes, sir, in the event a Morrow well was drilled, then all rights would be earned.

Q The commencement date, I believe you gave, was September 13, 1962. Has that been extended?

A That has been subsequently extended to October 1st, 1962.

Q You mentioned the Morrow, is that of the Pennsylvanian formation?

A Yes, sir, that's the Pennsylvanian series.

Q Are there any Morrow wells completed in this area that are shown on your map?

A Yes. There are three completions in the Morrow in this area. Those are the Lusk 2, the Lusk 3 and the Southern California



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No. 1. The Shell Middleton is completed in the Morrow for a very marginal well, probably less than a million a day. All three of the Pan American wells on the map have penetrated the Morrow. A completion attempt is presently being made on the well in Section 27 in the Plains Unit well; they had a very small show on a drill stem test in the Plains Unit.

Q Let me take you back to where you were when I interrupted you and go ahead with the negotiations that took place for the drilling of this well.

A As I understand, I first asked Phillips for a farmout, and on or about June 28 Phillips called me and rejected a farmout, but said they might join in the well, which I requested that they consider a joinder. On July 5th Phillips wrote me saying that they preferred not to go anything at this time. There were two conversations between, with Phillips between the 5th and the 20th, and on the 20th I went to Midland to discuss the matter with their management, and on the 24th wrote Phillips setting out a proposal for a well in this area with proposed allocation of cost for a Strawn and a Morrow well, and a copy of that went to Kerr-McGee.

Two days later Phillips called me and suggested that we have a meeting of all the interested parties in this area since my conversation with the other companies involved, incidentally,



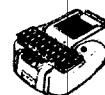
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within this section there were nine different leases and eight different owners, and all of the owners in the area felt that 640 acres was probably a reasonable spacing on the Morrow, although no spacing had been set, and that any communitization of Morrow interests should be on a 640-acre basis. So it was necessary to get everyone within the section at the meeting. Gulf had one 40-acre interest in there which we acquired, the other companies involved were Phillips, Kerr-McGee, Delhi-Taylor, Shell and Yates Petroleum, who were all present at the meeting that was held in Midland on July 30.

There were several conversations, including two with Kerr-McGee prior to that meeting on July 30, and at that time we were prepared to drill a Strawn test, but it was the consensus at the meeting that if this test was taken to the Strawn it ought to go to the Morrow, and I believe that all the operators' representatives present expressed themselves to that end and we reached a general agreement at that meeting on July 30 on the allocation of costs between the Strawn interests and the Morrow interests which would be different.

On August the 1st a report on that meeting, in detail, of the discussion and proposals was mailed to all parties and there was, my next conversation with Kerr-McGee was on the 14th of August, I believe, and I was informed that Kerr-McGee would not reach



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any decision until we had one out of Phillips as to their joinder in the project, and didn't intend to process it further until Phillips had made up their mind. Phillips held an undivided half interest with Kerr-McGee. On the 23rd I talked to them again, on the 28th we mailed out an estimated cost of the well, and this is August 28, mind you, and our proposed date for starting at that time was September 13.

MR. NUTTER: This is the estimated cost to go to the Morrow?

A Yes, sir, and to the Strawn. We sent both figures and we also sent a copy of our drilling bit proposal. The Yates brothers asked for bids on the well at that time because our time was getting so short. Just about this time we realized that we weren't going to make that September 13 deadline and asked for and received an extension to October 1st, with some reluctance from the people who actually farmed it out to us.

On September 3rd I wrote Phillips giving some additional figures on allocation of costs with a copy of that going to Kerr-McGee, and on that date we received a wire from Phillips approving joinder by Phillips in a Morrow test. On September 5th we mailed an operating agreement to all parties except, that's joint operating agreement for both Strawn and Morrow, and I personally took Kerr-McGee's copy to Amarillo to be sure that



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they got it and to further discuss this thing since they were the only ones of the interested parties at that time who hadn't approved this Morrow test.

At that time we called a meeting, we set up a meeting for September the 11th, of all of the operators interested in the project, and that was held in Artesia on September 11, and everyone was there, had representatives there except Kerr-McGee, and we reached general agreement among the other companies as to the various changes to be made in the operating agreement and proper allocation of costs formula which is rather complex.

Q Let me interrupt you just a minute. At that point you had an agreement to drill a Morrow well?

A Yes, sir.

Q Briefly what are the terms of that agreement that all the parties except Kerr-McGee had agreed upon?

A Actually the agreement was loaded in favor of the Strawn owners, that Phillips and Kerr-McGee, where we felt from the start we had to have them in the project. It worked out that the Strawn is the primary objective in here, the Morrow is, I would say is almost a marginal project, much greater hazard on a Morrow test than on the Strawn.

Our allocation of cost formula actually figured out that on a dry hole the Strawn owners would actually pay \$86,000 and the



Morrow owners \$136,000, even though the Strawn owners were shooting for much greater reserves than Morrow.

Q Was there a dry hole contribution to the Strawn?

A Yes. That was figured in in the allocation of costs. That was the Morrow owners contribution toward drilling the hole to the Strawn.

Q How much a foot was that contribution?

A Eight dollars a foot.

Q Go on back to your negotiations again.

A After our meeting on September 11 I called Mr. McKinney at Amarillo to inform him what went on at the meeting and ask as to the status of the deal with Kerr-McGee, and was told that it had been submitted to Oklahoma City, presumably with his recommendation, but they did not have approval from their Oklahoma City headquarters. The next day I was in Oklahoma City and called Kerr-McGee's office and spent some time discussing the deal with Mr. Curtis of Kerr-McGee, and felt that there were a number of things about it which they possibly didn't understand that I could clear up.

Well, on that same day before I actually got back to Roswell, Kerr-McGee wired the Yates saying that they preferred to defer the test. Of course, we didn't have any choice at that time because we had an October 1st spudding date. That was signed by

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Mr. J. C. Finley, and we called Mr. Finley and made an appointment with him, and on September 17, S. P. Yates and Martin Yates and I flew to Oklahoma City and went over the entire thing with Mr. Finley and he agreed to resubmit, Mr. Finley is exploration manager of Kerr-McGee, and he agreed to resubmit the project to their management.

On the 21st, four days later, we received a wire from Kerr-McGee offering us \$10,160 dry hole money on a \$358,000 well, which we felt was an inadequate offer, and since we couldn't drill the Morrow without pooling this 160 due to the spacing order to which we are subject, we would only get three-quarters of an allowable without the joinder of Kerr-McGee's interest, so that we felt that since our well was slated to be started we are making efforts to get the well started and to avoid giving Kerr-McGee an entire free ride to look at the Strawn, at that time we filed an application for the forced pooling.

MR. NUTTER: Kerr-McGee offered how much?

A \$10,160 on a 12,700 foot test. That's dry hole money.

MR. NUTTER: But that's on the Morrow test or --

A For the Morrow test.

Q For the Morrow test only?

A For the entire well.

MR. NUTTER: For the entire well?



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A Yes.

Q Please refer to Exhibit 4 and state if that is the first telegram that you mentioned that you received from Kerr-McGee?

A That's the one.

Q This is the telegram in which they stated they preferred to defer drilling of the well, you received it on September 13?

A Yes.

Q Please refer to what has been marked Exhibit 5. State if that is the second telegram, and if so, read it into the record, please.

A Yes, this telegram is dated September 21, it was received at 4:07 P.M., that was on a Friday, addressed to S. P. Yates. "Re: Proposed Morrow test, Northeast, Northeast Section 30, 10 South, 32 East, Lea County, New Mexico. If you spud the above test within ten days from date hereof and diligently test all formations down to and including the Morrow formation, we will contribute 80 cents per foot dry hole money, not to exceed \$10,160.00, with the understanding (1) that, in consideration thereof, you will waive your right to force pool Section 30 against Kerr-McGee and (2) you will support 160-acre spacing for the Strawn reservoir embracing the Northeast Quarter of Section



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30, 19 South, 32 East and if the well produces allow Kerr-McGee the option to contribute its leases in the Northwest Quarter of Section 30 and pay its share of the actual cost of drilling and completing same and thereby become the owner of its proportionate interest in the unit well and (3) you will request and support with reasonable efforts 640-acre Morrow spacing embracing the entire Section 30, 19 South, 32 East and if the proposed test produces allow Kerr-McGee the option to contribute its leases in Section 30 and pay its proportionate share of the actual cost of drilling and completing same and thereby become owner of its proportionate part of the unit well, such interest to be equal to the ratio of net acres owned by Kerr-McGee to the total net acres in the proration unit established by the State of New Mexico Oil Conservation Commission. In the event Kerr-McGee elects not to exercise its option with respect to either the Strawn or Morrow, its acreage will be placed in the proration unit and you will be allowed to recoup from production 100 percent of Kerr-McGee's share of operating cost and surface equipment beyond the well head and 125 percent of Kerr-McGee's share of the cost of drilling and equipping the well through the well head. If the above is acceptable to you, please so advise by wire and we will draft a definitive letter agreement formalizing these terms. Your acceptance must reach us by midnight September 24,



1962." Signed Breene M. Kerr, Kerr-McGee Oil Industries, Inc.

Q You have in your earlier testimony referred to Yates brothers. To correct the record, is it actually Martin Yates, III and S. P., III?

A Yes.

Q That is correct, they are the owners of this farmout from Elliott and Hall?

A Right.

Q Have they caused the title to this Northeast Quarter of Section 30 to be examined?

A They have.

Q And are these the owners of working overriding royalty and royalty interests in this 160? The United States is the lessor, Joseph L. McLennan is an overriding royalty and Elliott and Hall was an overriding with a right to back in for a working interest, H. N. Sweeney with a back in on working interest and S. P. Yates and Martin Yates, III as the working interest owners under the 2 40's described as the Northeast, Northeast and the Southwest, Northeast, and Phillips Petroleum Company and Kerr-McGee Oil Industries as owners of undivided one-half interest each in the Northwest, Northeast, Northeast of that Section 30?

A I believe there's an additional one percent royalty

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on one 40 held by Phillips, but otherwise according to my attorney that's correct.

Q Have all of those people agreed to communitize their interest for the drilling of a Strawn well?

A Except Kerr-McGee.

Q You mentioned the United States Geological Survey. Have you discussed with them the communitication of their leases for the Strawn Pool?

A I have. Mr. John Anderson, supervisor of the United States Geological Survey office at Roswell, the Regional Office, said that it would be a routine matter to approve it in a few minutes with the commitment of all the parties.

Q Are you familiar with the Oil Conservation Commission rules which established the Lusk-Strawn Pool and prescribed the spacing and proration units?

A Yes, sir.

Q Was it Order No. R-1840 which initially established the pool?

A I believe that's right.

Q Did that order define the pool as being the Northeast Quarter of Section 19 in Township 19 South, Range 32 East?

A Yes, sir.

Q Then the subsequent order of the Commission establishing

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spacing for that pool, was that R-2175-B?

A I believe that's correct.

Q Did that establish 160-acre spacing?

A I believe that first order established 80 acres.

Q Well, the B order did that, R-2175-B, that's not the one that authorized 160-acre spacing?

A The last order was 160 acres.

Q Does that apply for drilling and sapcing and proration units for wells within the pool and within one mile of the exterior boundaries?

A That's right.

Q You had a commitment date of October 1st, did the Yates commence drilling this well, and if so, what is its location?

A The well was spudded 660 feet from the north and east lines of Section 30 at 10:30 P.M. on September 27. It's presently at a total depth of 3715 and preparing to run intermediate casing.

Q Please refer to what has been marked as Exhibit No. 2 and state what that is.

A This is the notice to the United States Geological Survey of intention to drill the Federal Elliott Hall No. 1, which has been approved by the United States Geological Survey.

Q Please refer to Exhibit 3.



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A Exhibit 3 is well location and acreage dedication plat which was filed with the notice of intention to drill.

Q Is that for this Strawn test well that you are testifying with respect to?

A It is.

Q What acreage is dedicated to the well?

A The Northeast Quarter.

Q Of this Section 30? A Right.

Q So far in the drilling of this well have you encountered any problems?

A Yes. There's a lost circulation zone at approximately 2900 feet which has been encountered in all the wells, and we have drilled approximately 800 feet of this well without returns, and while we originally intended to set 4400 feet, it's been decided that we will run our intermediate string at our present total depth of 5713.

Q What factors would you say in the drilling of this well would be determinative of the risk that Yates might incur without the participation of all of them, of all the working interest owners?

A Well, every well is a risk. This is certainly not a field well. It's a step out from production of almost a mile from two different wells. Our structural interpretation that is



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shown on Exhibit 1 has rather scant controls and could change radically, but our greatest risk, and which has been shown by the marginal wells and dry holes in the area, is not of structure as it is of porosity and permeability. The two wells farthest north in the field, the Greenwood Unit No. 7 and No. 8 are almost lacking in porosity in the Strawn, although these are high wells, actually. Much higher than other wells in the field that are producing.

The Shell Middleton 1 Well in Section 18 apparently had good porosity, but the performance of the well has indicated a lack of permeability. In spite of a good porosity section, that is definitely a marginal well, probably due to lack of permeability.

The Pan American Plains Unit Well in Section 27 is only 140 feet low to the producing well in Section 29, which is well above the oil column of the El Paso Natural Gas well in Section 29, but it would be expected to produce from its structural position, but they encountered a complete lack of porosity in that well in Section 27, and that is our major hazard, I believe, even more so than changes in structure, which, due to the lack of controls, could occur very rapidly here, but we're almost a mile from the nearest well and a lot of changes in porosity can happen within a mile.

MR. NUTTER: We'll recess until 1:30 P.M.



(Whereupon, a recess was taken.)

MR. NUTTER: The hearing will come to order, please.
Before continuing with Case No. 2655, we will reopen 2656.

(Whereupon, further testimony in Case No. 2656 was presented.)

MR. NUTTER: We will resume Case No. 2655.

Q (By Mr. Losee) You are the same H. A. Sweeney that was testifying before lunch in this case, are you not?

A Yes, sir.

Q I believe at that time you were explaining your views on the geology which would contribute to the risk factor in this forced pooling case. Would you care to continue on any statements about geology?

A There's a lot we don't know about this field, naturally, with only four good wells that are approximately, oh, three miles apart, and all on a direct line. The wells that have been drilled, both the dry holes and marginal wells, have proved that the field is not structurally controlled. I'm familiar with the Strawn carbonate reservoir field in Midland County, the Strawn field which extends over a length of approximately ten miles, and in no place is it more than a half a mile wide, the porosity zone. I think we have to recognize that that could happen here. It's not an uncommon matter to have a porosity trend of rather narrow

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extent and our well is the first one, well, not the first one, we are off the porosity trend which has been established by the four completed wells, and I think there's a very substantial risk factor involved that our well will either show the porosity extends over in that direction or it doesn't.

Q Mr. Sweeney, I see on your Exhibit 1 you have in this deep unit a Well No. 4. Is that a drilling well?

A Yes, it was probably spudded this week end.

Q In the first telegram of Kerr-McGee they mentioned they preferred to defer the drilling of your well in the Northeast, Northeast of 30 until a well was completed and they gave the location. Is that the Well No. 4 that's shown there?

A I presume, and my reaction actually is that that is an excuse and not a reason and that well is roughly a mile away from our well and will tell us nothing about the porosity conditions in our well, and from my knowledge of the Lusk Unit, Kerr-McGee has a very small interest in that well.

Q Well, that is the well, though, they were referring to?

A Yes.

Q How deep do you expect to encounter the Strawn in this well?

A The porosity zone approximately 11,450, give or take 50 feet.



Q Do you consider that this is a field well under common nomenclature?

A Oh, definitely, no.

Q Is there a possibility that in the drilling of this well you might lose your hole?

A Yes, sir, there are some unusual drilling conditions in this field and there's one well that El Paso drilled, their No. 2 well, which while the normal estimates for Morrow well in this area run in the neighborhood of \$355,000 to \$360,000, that El Paso No. 2 Well I've been informed actually cost \$850,000.

Q What conditions exist in this area which might make the drilling more expensive or might result in losing the hole?

A The most critical and most common problem in there is extremely cavernous porosity at the top of the Seven Rivers formation, but is probably the Capitan Reef. That there's an interval of, oh, 200 feet at the top of this reef section with cavernous porosity and most of the wells drilled in this general area have completely lost circulation within this zone, and it's virtually impossible to seal, and since that reef section is something like that 1700 feet thick and you might run into this cavernous condition at any point, although it hasn't been established that there's any below depth of about 3350 feet, the operators, where they have been able to, have all set casing

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through the reef section at approximately 4500 feet.

Q Earlier in your testimony you mentioned the agreement between all of the parties other than Kerr-McGee to drill this Morrow test well.

A Yes.

Q Did the parties actually agree upon the form of an operating agreement?

A Yes, sir, in general, and on allocation of costs, of course, when Kerr-McGee refused to join it knocked that agreement out of the company, it knocked that out the window, because these were major companies, without Kerr-McGee it made a different basis and we just had to start all over again.

Q By throwing that out the window, did Yates also lose the \$8,00 a foot dry hole money?

A Yes, sir, I presume so.

Q Did that operating agreement have what is commonly referred to as a non-consent clause in it?

A Yes, sir.

Q Was that a penalty provision inserted in that agreement for a party who would not participate in the drilling of a well?

A Non-consent clause, yes.

Q Did the parties agree upon that non-consent clause?

A Yes, they did. It was discussed and we reached agreement

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of the figure of 200%.

Q In other words, that's 200% value above the well head equipment?

A That's right.

Q And 100%.

A It's a hundred percent penalty. It's 200% retiring to the operator taking the risk.

Q That 200% covers the cost of drilling and completing the well other than the well head equipment?

A That's true.

Q Please refer to what has been marked Exhibit 5 and state what that is.

A This is an AFE which was submitted to, that's authorization for expenditure which was submitted to all parties involved in this test showing the well costs estimate for a Strawn test on this well.

Q Was that AFE approved by anyone other than Yates?

A Informally by everyone to whom it's been submitted.

Q Who would that be?

A It would be Phillips, Shell, Delhi-Taylor.

Q Referring to page 3 of that exhibit, would you read into the record the tangible and intangible costs shown on this AFE?



A For a completed well in the Strawn, have a total intangible cost of \$145,800; tangible cost, \$86,800; total cost, \$232,600 with a 10% contingency bringing our estimated cost to \$255,860.

Q What's the total cost for a dry hole?

A \$177,707. I might add that there hasn't been a well completed in the area yet for as little as this.

Q Please refer to what has been marked as Exhibit 6 and state what that is.

A That is the accounting procedure which was attached to our proposed joint operating agreement.

Q Is this the joint operating agreement for the Strawn and Morrow test well?

A Let me amend, could I confer with you a minute? Actually, this is a copy of the accounting procedure attached to our farm-out agreement with Elliott. There was no provision for wells above 8,000 feet in our joint operating agreement actually, because it didn't contemplate any joint wells.

Q That is attached to what instrument?

A This accounting procedure was attached to our operating agreement with Elliott and Hall.

Q As it was made for the purpose of taking care of the situation that when Elliott and Hall's override converted to a



working interest they would then be called upon to bear a share of the cost of operation of the well?

A That's true, and we used exactly the same figures in our proposal on the joint operating agreement with the other operators.

Q But that is the Elliott and Hall now were the owners of that lease and when they farmed it out they attached their accounting procedure to this agreement?

A Right.

Q Did you use the same accounting procedure and the same rates on the proposed Morrow agreement?

A Exactly, with the exception that there was no need to provide for wells above 8,000 feet as we had in the Elliott and Hall agreement.

Q So that actually your only figures agreed upon in that were under the administrative overhead Section 212, was \$300.00 on the drilling well, \$60.00 on the first 5, 50 and 40?

A Right. Shell representative, when he looked at those, said that he wouldn't operate a well for that little.

Q You say it was attached to this proposed Morrow operating agreement. Did the other operators, Delhi-Taylor, Phillips and Shell agree to this accounting procedure form?

A They did.

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Q With the rates?

A They did.

Q Did you ever make any offer to Kerr-McGee to farm out their acreage to accept a farmout?

A I did in my letter of July 24, which went to both Phillips and Shell, I made the proposal that if they did not elect to join, that they farm out their acreage to me on the basis of an eighthoverride until payout, and which they could come back in for half the working interest.

Q After payout?

A After payout.

Q Is that a better deal for Kerr-McGee than Elliott-Hall has farmed this acreage out to you?

A Yes, it is.

Q In what respect does it differ?

A My agreement with Elliott and Hall is that they got an eighthoverride until payout and then have an operation to convert to a quarter working interest after payout.

Q So that the offer you made Kerr-McGee is better in that they could back in for one-half working interest rather than the 25% working interest?

A That's right.

Q Do you have anything further you would like to state in respect to this application?

A Oh, if I may express an opinion. I don't think the



maximum penalty of 50% that the Commission is allowed to present is really adequate for the risk involved in this particular case, but if that's all we can get, I think we are entitled to it.

MR. LOSEE: The Applicant will move the introduction of Exhibits 1 through 7.

MR. NUTTER: Applicant's Exhibits 1 through 7 will be admitted in evidence.

(Whereupon, Applicant's Exhibits Nos. 1 through 7 were admitted in evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Sweeney?

MR. IRVINE: I do.

MR. NUTTER: Mr. Irvine.

CROSS EXAMINATION

BY MR. IRVINE:

Q Mr. Sweeney, you were speaking a little while ago of a reef section that you say is present in these wells, and I believe you stated earlier in your testimony that it was present in all of the wells that had been completed?

A Most of them, I said. The section has been present and most of the wells of lost circulation in that zone have encountered cavernous porosity.

Q All of the wells have been completed successfully to



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date I believe you also said, did you not?

A That's true, although the El Paso Southern California Well No. 1 was delayed almost thirty days through this lost circulation zone in their drilling.

Q At the present time what depth is the well that Yates is drilling, in the process of drilling?

A 3715 feet.

Q I believe that based upon the testimony that you gave, that you've already drilled through this lost circulation zone, have you not?

A The known lost circulation zone. We recognize the possibility that we could still encounter cavernous porosity below where we are drilling pipe.

Q But you have drilled through that that is known?

A Yes, sir.

Q And you knew, I beg your pardon, not you, but Yates knew prior to the time that any of these proposals were made that this lost circulation zone was present then, didn't you?

A Yes, sir.

Q This was taken --

A Let me qualify that. As I said, some of the wells did not encounter lost circulation, the El Paso Lusk 3, for instance, went through it without difficulty. The Southern California



No. 1 encountered a tremendous amount of difficulty. We recognize the possibility, we didn't necessarily know that we would lose circulation.

Q But you took that into consideration in all of your estimates, and so forth, of the costs of these things?

A Yes, sir.

Q So that that's a built-in factor into the cost of the drilling of this well?

A It can't be estimated precisely because we wouldn't expect to be thirty days' work and \$1200.00 a day, or thereabouts, as they were in the El Paso Southern California. The El Paso didn't expect to be either, but those are risk factors that are involved in any well.

Q And they're no less involved in the well that Mr. Yates is drilling and which he knew in advance about, right?

A Yes, sir.

Q All right, sir. In speaking of the dry hole money, what was Kerr-McGee's share of \$177,000, some odd dollars, of dry hole money?

A For a Strawn well it would have cost Kerr-McGee under our proposal \$33,000 for a Strawn dry hole.

Q All right.

A Net.

Q And Kerr-McGee's offer for a dry hole on this rather lengthy

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telegram with various options was some \$10,160, was it not?

A Yes, sir.

Q All right. Thank you. You have spoken that the Yates well was not a field well prior to the time that the well, the El Paso Southern California No. 1 well, which is in Section 29, was drilled, the three wells that were present were in the Lusk Deep Unit, the El Paso wells in the Lusk Deep Unit?

A That is correct.

Q Would you consider the Southern California well a field well at the time it was drilled?

A No, sir, I don't think it was.

Q Yet now that it is drilled and has extended the field, a well that is somewhat only slightly off the line, but yet in between those two wells, you still do not consider it a field well?

A We're a half a mile off the direct line, Mr. Irvine.

Q What is your idea of the direct line of the Lusk porosity in this field?

A I think all we have proven is the porosity, and I would say, I wouldn't say necessarily that we've proven that the field will tie together between the Lusk 3 and the Southern California No. 1. With very scanty control we have, there could very easily be a saddle in between or a pinch-out of porosity,



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a loss of porosity in that interval. I'd say in all likelihood that that is one trend of porosity through there which is virtually a straight line through the four wells, but I wouldn't say it's proven.

Q In your opinion these are the only four wells in the area that would tend to show a Lusk porosity?

A Yes, sir, they're the only, I would say commercial wells in there out of eight that have been drilled.

Q Now, you spoke a little while ago about the non consent clause in this operating agreement and you spoke several times about the operating agreement?

A Yes.

Q Of which some part of it is attached as an exhibit here, the accounting procedure?

A That's a different one, Mr. Irvine. The operating agreement that we originally drew up was for joint Strawn and Morrow test. Of course, when Kerr-McGee refused to join, that threw our Morrow test out the window because we had to get our Strawn well started, and so we are now drilling a Strawn test and hope before we get down to the Strawn that possibly we can negotiate with the various parties, renegotiate to go on to the Morrow, but that is by no means assured.

Q You spoke of the non consent clause, and I believe this



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time you were speaking about the operating agreement that was circulated to various parties?

A Yes.

Q It provided for a 200%, I believe, non consent?

A Yes.

Q Who non consented to any well drilled in this area other than Kerr-McGee?

A I wouldn't say Kerr-McGee non consented, they just refused to join.

Q Well, we were a non consenter, then, were we not, to the drilling of this well at least?

A It applies to subsequent wells, I don't see the point.

Q I don't see the point you put it in there for, and that's what I was going to ask you. Why were you speaking of it?

A Well, 200% has gotten to be so common a penalty for non consent in operating agreements that Ross Martin prints it in their form. I have seen those now as high as 400%.

Q You are not presuming that anyone who might possibly have been a non consent agreed to that? In other words, Kerr-McGee did not agree to any such thing as that?

A Oh, I said you were not present at the meeting.

MR. IRVINE: I believe that's all we have. Thank you.



MR. NUTTER: Does anyone have any further questions of Mr. Sweeney?

BY MR. NUTTER:

Q I want to get a couple of things clear here in my mind. You stated that in your opinion the formula which was agreed to by everyone that was present at the meeting on September 11 was actually loaded in favor of the Strawn portion of the proposed test?

A Yes, sir. Phillips and Kerr-McGee would have a quarter interest in the Strawn under our proposal and an eighth in the Morrow. We had trouble with both of them from the start, and in our negotiation we had just felt it was necessary to give them additional incentives to come in and, as it finally evolved, they were getting quite a break.

Q You don't mean that they together would have a fourth, each one would have a fourth?

A Each one would have a fourth.

Q Together they would have a half?

A Yes.

Q We realize that Kerr-McGee was not present, but the agreement was that the Strawn owners would pay \$86,000?

A Of a complete dry hole.

Q And the Morrow owners would pay what, \$177,000, or

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something like that?

A They add together; \$222,000 was our estimate of a complete dry hole, of which the Strawn owners would pay \$86,000 and the Morrow owners would pay \$136,000.

Q \$136,000. By the Morrow owners, do you mean the Morrow owners outside the 160?

A No, everyone in the section.

Q In other words, the people in the Northeast Quarter would pay a portion of that Morrow cost as well as the Strawn cost?

A Actually Kerr-McGee's part of a Morrow, taking that well on to the Morrow and drilling a dry hole, would amount to \$5,500.00.

Q A dry hole in the Morrow, but a producer in the Strawn?

A Yes, that's true.

Q Is the Phillips Petroleum Company agreeable to the drilling of the well that has already been started, and to the AFE which has been presented here today?

A Phillips originally agreed to join on the basis of the Morrow test, and since we started this proceeding they've agreed to join for the Strawn test.

MR. NUTTER: I'm not sure in all these exhibits that have been entered that there is any evidence to Phillips' consent to the



Strawn test or not. Is there, Mr. Losee?

MR. LOSEE: No. I think not. It's merely his statement, but I will introduce a telegram.

MR. NUTTER: There will be evidence that Phillips Petroleum Company is agreeable to the Strawn test that's under way at the present time?

MR. LOSEE: Yes.

Q (By Mr. Nutter) Mr. Sweeney, you said that of the wells that had been drilled in this area, in your opinion four were good Strawn wells?

A Yes, sir.

Q They were the No. 1, 2 and 3 Lusk Deep Unit and the No. 1 Southern California?

A Right.

Q You said two were marginal, what are the two marginal?

A The Shell No. 1 Middleton.

Q That's marginal in the Strawn as well as the Morrow?

A Yes, it's marginal in the Strawn and sick in the Morrow.

Q And sick in the Morrow.

A And then the Greenwood Unit, Pan American's Greenwood 7, the one farthest to the northwest.

Q Is it completed in the Strawn?

A Yes.



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Q It's marginal?

A Yes, they have a pump on it. It's pumping about 75 barrels a day.

Q You also said there were two dry holes that would be in the No. 8 up in the Southwest, Southwest of 7?

A Yes, sir.

Q What's the other one?

A The Plains Unit well in the extreme southeast corner of the map. I might explain on those wells they're very recent completions, neither of them had porosity in the Strawn, and on the Plains Unit well they have run pipe and are going to try to make a Morrow completion of a very small show in the Morrow, but they are convinced that there's nothing in the Strawn. On the Greenwood 8 they have recommended plugging that. They're waiting on orders from their management.

Q Now, referring to your contour map, is this map based on anything other than the formation tops that have been encountered in the wells which have been drilled?

A To some extent on regional geology influences it and to some extent seismic work, but our difficulty in there is that the structure on top of the Strawn, the seismic interpretation in this area is on the top of the Mississippian where they get their best reflections, and the structure on top of the Strawn



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does not conform to the structure on top of the Mississippian, so seismic is a secondary influence. We have to rely primarily on subsurface, and I would say this map is somewhat optimistic in that basically we interpret this as a plunging knoll of a very large regional high to the northwest, Schugart high, there we have close control, and the dip on that Schugart high is in the range of 300 feet to the mile. This is actually contoured on a dip of 200 feet to the mile, which is more in line with the general Strawn dip in Southeast New Mexico, but if that dip on the Schugart high continues on this knolls, it would put our location too low.

Q How far down is this Lusk Unit No. 4 at this present time?

A I was at the location Sunday and they were just getting ready to spud, I believe, or just barely. They had just finished rigging up. I don't know whether they had actually spudded or not.

Q Even if they had, there's nothing that would indicate they are going to run high or low?

A Actually the first marker that I consider of any significance is, first, Bone Springs sand at 8200 feet.

Q Your well hasn't reached that one yet?

A No, sir.



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Q For the time being, drawing this minus 7600 foot closed contour across the section of 29 in the north and the south of Section 22 is more or less conjecture and that could be a continuation of the 7600 foot contour which is in the northwest part of your structure?

A It could, and we could have a low going through there. In fact, I think some of the seismic I have seen show a slight saddle in between the Southern California well and the Lusk deep area.

Q So the seismic picture that you saw was maybe what caused you to draw this saddle going through?

A Actually I didn't draw the saddle because I don't think it's there on the Strawn, but I say it could be the saddle in between your Southern California well and the Lusk wells. If you went strictly on the seismic you would have to draw a low in there. Actually I put a little high.

Q You have a high and also a low? You have a truss running between the two 7600-foot contours?

A Yes. We are coming down dip there. Actually what we've got is a plunging knolls in there with a slight high in the middle of it. I wouldn't call it a saddle exactly. I was thinking of a low area in there that would, oh, could be 100, 200 feet. We just don't have any control.



Q All the control that you do have so far is northwest, southeast and not much out towards the side?

A Exactly. And nothing to the southwest of that trend. All the wells so far have been drilled west and northwest and north of our trend.

Q What is the nearest deep test that has been made to the southwest of this area?

A The Pan American No. 1 Big Eddy Unit is in Section 3 of the next township, and it's about, oh, five to six miles. .

MR. NUTTER: Any further questions of Mr. Sweeney?

MR. LOSEE: I have one question.

(Whereupon, Applicant's Exhibit No. 8, was marked for identification.)

REDIRECT EXAMINATION

BY MR. LOSEE:

Q I hand you what has been marked Exhibit 8 and ask you to state what that is.

A This is a wire signed by Sam G. Pate, Land Department, Phillips Petroleum Company, addressed to S. P. Yates, Santa Fe, New Mexico, "Confirming telephone conversation of this date, you are advised that we have management approval to join in the drilling of an 11,500 foot Strawn test in Northeast Quarter, Section 30, Township 19 South, Range 32 East, Lea County, New



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Mexico. Letter will follow giving all details."

MR. NUTTER: What is the date of that telegram?

A That's dated from Midland, Texas at 9:59 on the 10th.

MR. NUTTER: Of October?

A The 10th of October. That's this morning.

MR. NUTTER: It's timely.

MR. LOSEE: We'll offer the exhibit.

A I might add that we were advised two weeks ago that Phillips had recommended joining in their Midland office, they just didn't have management's approval.

MR. NUTTER: Applicant's Exhibit 8 will be admitted in evidence.

(Whereupon, Applicant's Exhibit No. 8 was admitted in evidence.)

MR. NUTTER: Does anyone have any further questions of Mr. Sweeney? He's excused.

(Witness excused.)

MR. LOSEE: That's the Applicant's case.

MR. NUTTER: Does anyone have anything they wish to offer in this case?

MR. IRVINE: Yes, sir.

(Witness sworn.)

(Whereupon, Kerr-McGee Exhibits Nos. 1 and 2 were marked for identification.)



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JERRY McKINNEY

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

DIRECT EXAMINATION

BY MR. IRVINE:

Q Would you state your name, please?

A Jerry: McKinney.

Q Where do you reside?

A 5502 Evett, Amarillo, Texas.

Q By whom are you employed and in what capacity?

A Kerr-McGee Oil Industry, Division Manager, Southwest Division Office.

Q From where did you graduate in your advanced schooling?

A Oklahoma University, Bachelors and Masters degree in geological engineering, 1952 on my Master.

Q Is that Oklahoma University?

A Oklahoma University.

Q What has been your experience since your graduation from college?

A I have worked for Kerr-McGee both in Oklahoma, North Texas and in the last three and a half years in West Texas and the Oklahoma-Texas Panhandle, Southeast, New Mexico.

Q What has been your various jobs with Kerr-McGee?



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A I started out as a geologist and became District Geologist in Oklahoma City and Division Manager in Amarillo.

Q As a Division Manager in Amarillo, what is the area under your jurisdiction?

A Western Kansas, Eastern Colorado, the Oklahoma and Texas Panhandles, and the entire Permian Basin.

Q This area does include the Lusk-Strawn Pool, does it not?

A It does.

Q Are you familiar with this Lusk-Strawn Pool area?

A I am.

Q Why are you familiar with it?

A Because of working with it and actively engaging in drilling wells within the pool itself, participating in the El Paso Lusk wells.

Q And Kerr-McGee is the owner of some interest in this area, is it not?

A That is correct.

Q Which is under your jurisdiction?

A Yes.

MR. IRVINE: Would the Commission accept the qualifications?

MR. NUTTER: Yes, sir, please proceed.



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Q I hand you what has been marked Exhibit No. 1 and ask if you can identify it for us, please.

A This is a map, structural map of the Lusk Unit area contoured on top of the Strawn formation, on 50-foot contours it shows all the present deep wells in the area, it shows the top of the Strong formation and the top of the pay and the amount of the pay in each well.

Q What is the area outlined in red?

A I don't think that's outlined on all the exhibits. Outlined in the dashed blue line on the rest of the exhibit is the outline of the Lusk Unit.

Q What are the areas outlined in yellow?

A Those are Kerr-McGee leases outside the Lusk Unit.

Q The red arrow indicates what?

A The Yates No. 1 Hall Well which is the reason for this meeting.

Q In order that all the exhibits may be introduced at once and reference can be made to them, will you please identify what has been marked Exhibit No. 2 for us, please?

A Exhibit 2 is a cross section from the Pan American No. 7 Greenwood Unit, which is the well at the very top of the map, down through the El Paso 2, 1 and 3 Lusk Unit wells into the El Paso Southern California well. There's a location map on the



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cross section itself. The cross section was drawn primarily to show the structural attitude of the Strawn as well as the porosity in some of the Strawn wells in the area.

Q Could you please, for us, referring to both Exhibit No. 1 and Exhibit No. 2 that is necessary, and such other information as you might have, describe for us the areal content and the characteristics of the Strawn formation in this area?

A The Strawn is present through the area of this map, and of course elsewhere. The porosity in the Strawn is, in my opinion, lies in a northeast-southwest band. You will notice that it's present in the Pan American Greenwood Unit, if you'll refer to the left side of the cross section. It's very poorly developed at 8 feet of porosity. I hadn't gotten the latest dope on the Pan American No. 8 Greenwood Unit, but Mr. Sweeney indicated that did not have any porosity, which is not too unlikely in view of the poor porosity of the northwest.

Starting with the Shell Middleton Federal, which isn't on the cross section but does show on the map, in Section 18 that there's 34 feet of porosity. The balance of the wells to the southeast all have good, strong porosity. Some four miles, or three miles, actually, due southwest of the Yates No. 1 Hall is the Pan American Big Eddy Unit. This well had porosity in the Strawn and actually flowed oil and water from this Strawn porosity.



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As I recall, the porosity was only within 40 feet. To the north of this area the Shell No. 1 Queracho Plains well in Section 22 of 18 South, 32 East also has this same porosity. Based on the Shell Queracho Plains well, the porosity in the Lusk Unit, which we've already discussed in complete detail, and the porosity in the Pan American well, it is my opinion that this porosity belt runs from the northeast to the southwest across this nose as it is contoured, and that nose with the belt running across it constitutes the basic Strawn trap. We haven't proven any water in the Strawn necessarily. We do not know where the oil-water contact is. So structure, at present we don't know at what structural datum the water will be encountered. It could be there isn't a water level in the Strawn. I suspect that there is.

You'll notice that my interpretation shows the Yates Hall Well regardless as being higher than the El Paso Southern California Federal Well. I think previous testimony also showed essentially that, and if you'd have drawn, yes, so the picture as I see it again is a band of Strawn porosity cutting across the nose which forms a trap. I feel that the Yates well is extremely well located to find strong porosity, and I feel that the structural position will be above that of the Southern California Federal well which we know had complete oil column.

Q Mr. McKinney, I believe that Mr. Sweeney testified



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that it was not unusual for the Strawn formation to have bands of porosity surrounded by non-porous parts of the same formation. Would the picture that you have drawn here and the opinion that you have be in line with this suggestion?

A Yes. I'd agree with his statement.

MR. IRVINE: If the Commission please, I possibly should have started out with this, but may I interrupt to make a short statement here concerning Kerr-McGee's position?

MR. NUTTER: Yes, sir.

MR. IRVINE: We are not here in the position of opposing the pooling of this well. I think that the Commission's authority under these circumstances is more than clear and that they have the right, and perhaps even the duty, to go ahead and pool this section if the Yates, if Mr. Yates desires to drill a well therein. Therefore, we may state that it is not our position now to oppose the pooling of this well. However, we do oppose greatly the estimate of the risk factor involved and we are addressing ourselves primarily to that with the testimony that we are now giving.

Q (By Mr. Irvine) Mr. McKinney, referring to Exhibit No. 2, this exhibit shows, starting from northwest to southeast, the various wells that have been drilled in this area. Could you go over, please, and tell us, starting with the Pan American



Greenwood, the amount of porosity that was found in each one of these wells that you have listed on this exhibit?

A The porosity is shown on each well as a black solid bar in the well bore column of the electric log. Beside that we have noted the amount of porosities. In the case of the Pan American there was 8 feet of neutron porosity. The balance of the porosity on the No. 2 Lusk, 1 Lusk and 3 Lusk and No. 1 Southern California Federal well, 12 feet in the No. 2, 40 feet in the No. 1, 50 in the No. 3 and 57 in the No. 1 Southern California Federal well.

Q What, in your opinion, does the increase in porosity toward the southeast here do in relation to the Yates Hall No. 1 well? What effect do you think that might have?

A Well, again, my interpretation of this porosity is different than Mr. Sweeney's, and I feel that the Yates Hall well is very well located to encounter porosity in the Strawn.

Q In your opinion as an experienced geologist familiar with this area, do you have an opinion as to the reasonable possibility that the Yates Hall well will be economically productive of oil and gas from the Strawn formation?

A I think the odds, if you want to use that term, or the risk in drilling that well, I think it's got about an 80% chance of being successful. In other words, eight out of ten wells

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drilled under these exact circumstances, if that were possible, which it isn't, would be productive in my opinion.

Q On what basis specifically do you find this opinion, please?

A Based on, one, the structure which we've gone over a couple of times, it's my interpretation that the structure in the Yates Hall well will run higher than the Southern California Federal well in the Strawn. The other is the fact that the porosity exists both northeast and southwest of this Strawn Unit area, consequently the porosity should be present in the Yates Hall well.

Q In your opinion, based upon the information that you have concerning this area, is there anything to indicate that the Yates Hall well is likely to encounter any extraordinary mechanical problems in the drilling and completing, or in the drilling alone?

A I see no unusual risk. There is nothing to indicate unusual risk to my knowledge in the rest of the wells there actually happen to be through the zone that has caused the most trouble, as Mr. Sweeney testified.

Q As an experienced geologist with knowledge of the area, do you have an opinion as to the fair and reasonable risk factor that should be attributed to the drilling of the Yates Hall

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well?

A Well, back up, and based on my previous testimony, it's my opinion that it has an 80% chance of being successful, at that present ratio that would cut the risk factor or the penalty clause, so-to-speak, to 110%.

Q Or to a 10% risk factor --

A Out of 50% on the same ratio.

MR. IRVINE: I believe that's all we have.

MR. NUTTER: Any questions of the witness?

MR. LOSEE: I would like to ask him some questions, but I would like to take a couple of minutes to confer with somebody that knows more about the geology than I do.

MR. IRVINE: We would like to offer the exhibits.

MR. NUTTER: You have two?

MR. IRVINE: Yes, sir.

MR. NUTTER: Kerr-McGee's Exhibits 1 and 2 will be admitted in evidence.

(Whereupon, Kerr-McGee's Exhibits Nos. 1 and 2 were admitted in evidence.)

CROSS EXAMINATION

BY MR. LOSEE:

Q Mr. McKinney, your map neglected, you stated you didn't have the datum in on the Pan American Greenwood No. 8 well.



A That's right.

Q The copy I have has a pencil notation 7572, is that correct? Did you verify it?

A No, I got, if I penciled that on there it was just from Mr. Sweeney's map this morning. When this map was constructed I did not have the top. When I was listening to his testimony I guess I put that on there.

Q Actually, where would that 7572 feet run with respect to the Yates Hall well in the contour? You have that contour at 7600.

A Would you restate your question, please?

Q How far north of the Yates Hall well would 7572 feet be on your map?

A Well, this map it's obvious is incorrectly contoured at this particular point. I have called that a 7400 without that well data. I have got a 7400 contour. It's a 7572 according to his testimony. I'm assuming that they're calling the Strawn the same place and maybe they are and maybe they aren't. I haven't seen the log and we all call it a little different place.

Q If that is correct, then, your contour with respect to that Pan American No. 8 well is 200 feet off?

A 170 feet, yes.

Q Then your contour, by the same token, running through



the Yates Hall, could that likewise be off the 200 feet or 170 feet?

A It's certainly possible.

Q If the well in the Greenwood, the Pan American Greenwood had no porosity at that depth, then you wouldn't say that would be on the structure, would you?

A Run that by again.

Q The Pan American Greenwood well had the Strawn, did it not?

A It had the Strawn limestone. Again, I have not seen the log. Mr. Sweeney testified that the porosity was very poor in the well.

Q Referring to this Shell No. 1-A well, you said they had porosity in the well?

A Yes.

Q How many feet?

A 34 feet.

Q Is that in your opinion a good well, a marginal well, or do you know?

A The last report we had on that was about Friday, we called Shell, they were still testing the well. They haven't potentialized it, so I'm not really sure of its capabilities, based on the logs and so forth it should be a good well. Mr. Sweeney testified that he thought the permeability was poor in that well,

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and that may be the case. It may be that it's a mechanical problem. If it is in this well. This well has not been potentialized to my knowledge.

Q If the permeability isn't any good, will the well be a good well or a marginal well?

A It would be a marginal well if the permeability is not good.

Q Your dip running down through Sections 19 and 24 are approximately 150 feet to the mile, is that correct?

A Which sections, in 24?

Q 24.

A Yes.

Q Are you familiar with the dip in the Schugart area right to the northwest of this Lusk area?

A Yes, as far as remembering the exact amount of dip, I don't remember it. It's steeper, I believe.

Q It's considerably steeper than this?

A Yes. I think that's normal. My interpretation is that this is a nose extending off of the Greenwood high, as I thought. Mr. Sweeney thought the Schugart high. As you go to the margins of any high the contour rate will decrease and the dip becomes less.

Q You testified with respect to Shell's Queracho Plains No. 1 well having porosity in the Strawn?



A Yes.

Q Are you familiar with the No. 2 well that Shell drilled?

A Yes.

Q Did that have any porosity?

A Not in any Strawn section, it had in the lower Strawn.

Q But porosity was a problem there in the Strawn in this Strawn section?

A In the second well, yes, sir.

Q How far away was the No. 2 from the No. 1?

A As I recall, it's about a mile and a half.

MR. LOSEE: That's all the questions I have.

BY MR. NUTTER:

Q Mr. McKinney, the No. 8 Greenwood well had not been completed and the log was not available to you at the time you prepared your contour map, I presume?

A That is correct.

Q When was the well completed, do you know?

A I don't know that this well has officially been abandoned yet. The last report I had on it, which was last week, it was drilling at 12,491. Perhaps over the week end, or maybe Friday or Saturday, why the well is down and I assume that that's correct because Mr. Sweeney has talked to Pan American and gotten their point.

Q Do you know whether Pan American logged the well when



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they were in the Strawn section and then proceeded to drill ahead?

A Not to my knowledge.

Q So you don't know if or when the logs are available?

A Well, the logs have not been released through the regular channels, I know that.

Q As I understood your direct testimony, Mr. McKinney, you figured that the risk to a non consenting party who would be pooled by an order from this hearing should be in the neighborhood of a 10% penalty for one who doesn't pay his share in advance?

A Well, as I understand the Commission rules, you have a 50% penalty.

Q I believe the statute states that the maximum would be 50%.

A Maximum of 50%, yes, sir. I testified before that I felt this Yates Hall well had an 80% chance of being successful, or a 20% chance of being unsuccessful. Just the ratio of 100 to 50 would be the same as 20 to 10.

Q Is your company making any recommendations as to what the figure should be?

A We're asking --

Q First of all, I'll precede that question with this



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statement, that normally in a forced pooling order the Commission does provide the option for the party who would be placed into the unit to pay his proportionate share in advance, or within thirty days after receiving an itemized tabulation of the well costs.

A Yes.

Q Do you know whether your company would exercise the option of paying its share within that thirty days, or would pay it out of production?

MR. IRVINE: I believe perhaps I'm better able to answer that than Mr. McKinney is at the moment. I believe that this decision has not finally been made as yet.

MR. NUTTER: I presume that the amount of the penalty, so-to-speak, would have a bearing on that?

MR. IRVINE: Yes, sir, it would. I might add that the most serious indication at the moment is that the Kerr-McGee desires to have this paid out of production.

MR. NUTTER: Does anyone else have any questions of Mr. McKinney? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Irvine?

MR. IRVINE: I have no further evidence. We would rest at this time. If the Commission would permit a statement.



MR. NUTTER: Yes, if you would, please proceed with your statement.

MR. IRVINE: Would Mr. Losee like to go first? I'm the fellow that would like to follow the applicable rules.

MR. NUTTER: Normally we allow the applicant to go last. If Mr. Losee wants to go first, that would be suitable with us.

MR. IRVINE: I'll be happy to go first. I think the statement can be simply stated. I believe that this Commission has spaced this area, of course, for 160 acres, that Kerr-McGee is, of course, a 25% owner in this one section. The Yates is wishing to drill a well in the Northwest Quarter of 30, 19 South, 32 East, and they're requesting that Kerr-McGee be force pooled. As I stated in my earlier statement, we are not opposing the forced pooling whatsoever. We know that the Commission has the duty to go ahead and to encourage the drilling of wells and to try to get the most development that's possible. Therefore, we are not in opposition to the pooling.

We are in opposition, and serious opposition to the risk factor involved. I do not wish to take up the Commission's time a great deal with a reiteration of the evidence that we have had here. I think that it's fresh enough now in your mind that you know the various positions that have been taken by the parties.

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There's substantial disagreement, I would like to point out very carefully that the overall picture of the Strawn formation is one covering a very sizeable area, and I think that trying to determine the porosity extent on a basis of some four wells for a formation that extends over many townships is one that takes a very limited view.

I think that the testimony that Kerr-McGee has given indicates a wider, much broader view, and indicates a porosity opening that runs from the southwest to the northeast as testified to by Mr. McKinney, and that it is in exactly the opposite direction of the very limited view that has been taken by Mr. Sweeney in this case. I think it's almost impossible for you as a Commission to examine this on the basis of such a limited view, and I would submit to you the picture that is drawn by Mr. McKinney is a much broader, better picture of the Strawn area and the porosity that is available here.

I would like to point out also that in every well that has been drilled in this area, heading from the northeast to the northwest to the southeast, that the porosity has become much greater from 8 feet to some 57 feet, in the last well drilled that stepout was considerable. This well is located, as far as a northwest, southeast line is concerned, somewhere in between the two wells with the largest porosity available. It is some half

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mile off to the southwest of that line. In view of Mr. McKinney's testimony, this puts it in the direct line and his testimony is that there is at least an 80% chance that this well will be productive.

The statute here, as I understand it, provides for a maximum risk factor of 50%. I think that the Commission has in all of its forced pooling applications before taken the view that this 50% was the most they can give and that they have never entered an order in excess of 25% on any well. I think that this well that is being drilled now perhaps has a much better chance than many of the wells that the Commission has attributed the 25% factor to. We think that the 10% factor is in line with the exact chances that this well is estimated to have, and we feel that a 10% factor is one that should be granted to Kerr-McGee and we would request that Kerr-McGee may be permitted to have the usual options with the option to pay a 10% risk factor after the Commission has entered its order. Thank you.

MR. LOSEE: Mr. Examiner, I can't comment much further on the two different interpretations of the Strawn. Obviously they are two different interpretations, I don't really think Mr. Sweeney is as narrow as we would believe, because obviously we hope to get a well, or we wouldn't be out spending the money. On the other hand, I don't think the picture is probably as good



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as Kerr-McGee paints it because if it were I suspect they would join in the digging of the well and would not prefer to defer drilling it until they could see what happened to another well, which they say might add some more information.

Our statute provides for this 50% penalty, and I can not imagine a case more adapted to the invoking of the 50% penalty than this case here. The partner with Kerr-McGee, the owner of the other one-half interest in the acreage is drilling and participating in digging the well, actually to the point of agreeing probably to carry Kerr-McGee's part of this risk factor, or take part of it. It is a well which is one mile from the producer, it's the maximum distance that it could be and still come within our pooling and proration of spacing units. It couldn't be any further and be subject to a pool rule, and entitled to be pooled. It's a well to be dug 11,500 feet deep and not to any formation such as the Dakota where frequently the 125% penalty has been lapsed, which spreads over great areas.

We have some difference of opinion as to porosity and structure, but surely the factor involved in the risk in this case, if the Commission is ever going to see fit to award 50%, this seems like such a case. We feel like that is the risk factor to which we are entitled. I thank you.

MR. NUTTER: Does anyone else have anything they wish



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to offer in Case 2655? We'll take the case under advisement and call Case 2657.

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 October, 1962.

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. 2655 heard by me on Oct 10, 1962.
Ada Dearnley Examiner
New Mexico Oil Conservation Commission

